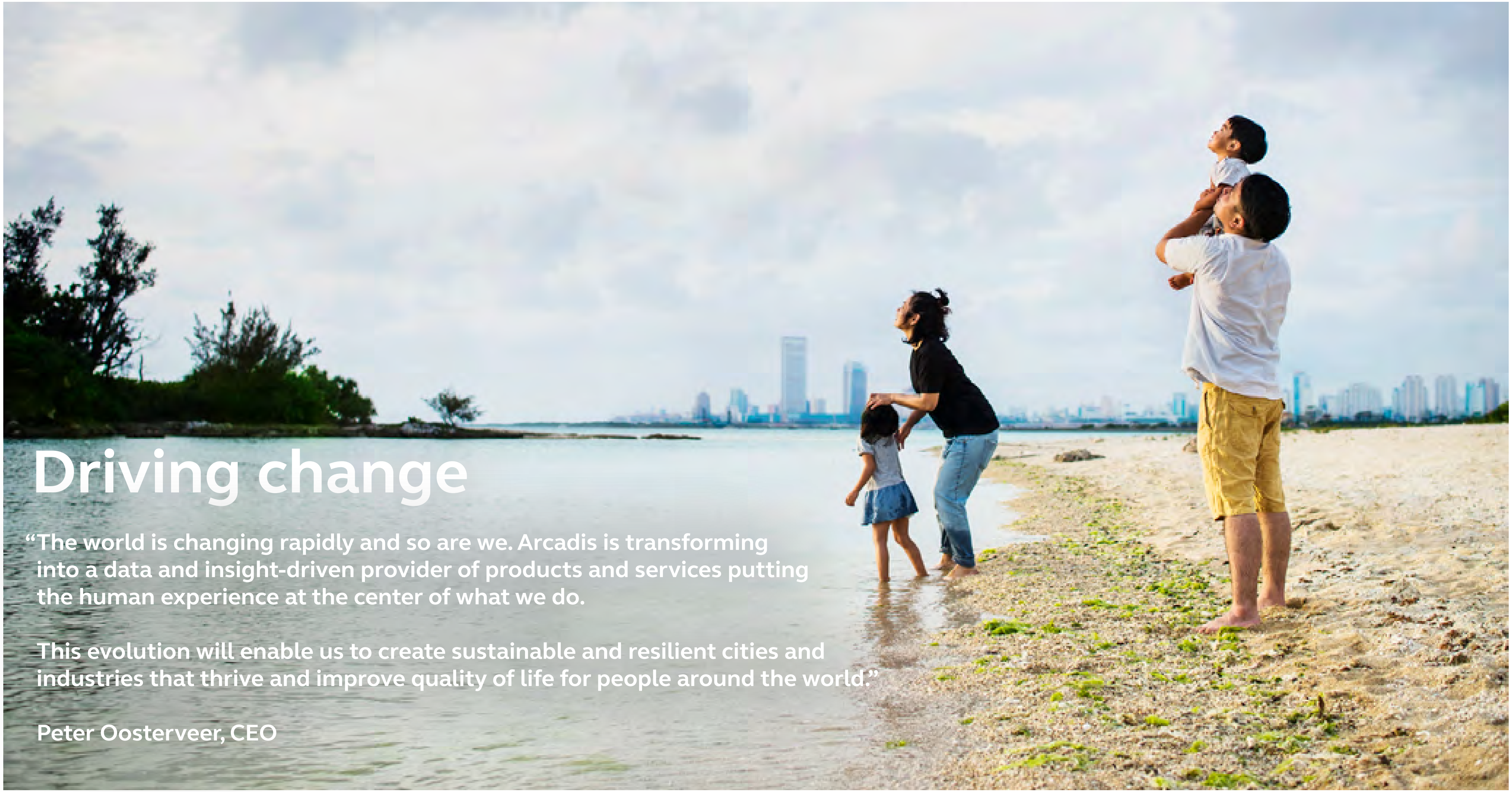
ARCADIS

Annual Integrated Report 2019
Driving change
Next generation thinking | Sustainable delivery



Driving change

"The world is changing rapidly and so are we. Arcadis is transforming into a data and insight-driven provider of products and services putting the human experience at the center of what we do.

This evolution will enable us to create sustainable and resilient cities and industries that thrive and improve quality of life for people around the world."

Peter Oosterveer, CEO

Triodos Bank
Driebergen-Zeist, The Netherlands

Office matches client’s sustainable purpose

Supporting Triodos as a partner in designing and planning their new home space. Arcadis was part of the design team and delivered services focused on Landscape Architecture & Urbanism, design of the innovative solar cellar roof. BREEAM-certification, (spatial) planning and environmental research (heritage, sustainable mobility, soil, ecology, hydrology and archeology).

Relevant SDGs:

Challenge

The sustainable Triodos Bank is growing fast and needed a new headquarter. The building site is located on an old and cultural-historical valuable estate in a protected ecological zone.

Solution

Matching their purpose, Triodos built a completely sustainable office-based on circular design principles, with the use of bio-based materials and re-used materials. The building is also energy neutral based on heat-cold storage and green roofs. Solar panels are placed above the parking lot. The building is optimally integrated into the environment. The entire estate is developed in accordance with the vision of balancing nature, culture and economy. The project even improved the biodiversity of the estate and its water-balance.

Impact

The new office creates room for improving the ecological structure and biodiversity. The construction is designed in a way that components and materials can easily be disassembled, without losing value. The building and estate reached the highest BREEAM score, are energy neutral, have a closed water circuit and are located right next to the train station. The whole project won a number of awards like the Cobouw Award 2019 for best new office, best office design by Architectenweb 2019 and the award for the best nature-inclusive build and design 2019.

Table of contents

2019 at a glance

People & Culture

Number of employees
headcount as at 31 December

27,875 ↑ — **2018:** 27,354

Employee engagement[1]
employee net promoter score (on a scale of -100 to 100)

19 — **2018:** 3.10[2]

Voluntary turnover rate
as % of total staff

13.5% ↑ — **2018:** 15.6%

Females in total workforce
as % of total staff

38% ↑ — **2018:** 37%

Total Recordable Case Frequency (TRCF)
per 200,000 work hours

0.16 ↑ — **2018:** 0.18

Employees passing Code of Conduct training
of all employees in 2019

97% ↓ — **2018:** 98%

↑ Improvement
↓ Deterioration
↔ Unchanged

[1] Based on a sample of employees, see page 49
[2] In prior years a scale of 0-4 was used; for the definition and method of measure for the indicator in 2019 see page 277

For definitions and methods of measure for the indicators included on this spread, please refer to page 277. The indicators that fall within the scope of limited assurance of our external auditor are marked with the ✓ symbol. See page 269 for the Assurance report of the independent auditor, which includes details on scoping and outcomes.

2019 at a glance

Organic revenue growth
net revenues

3% ⟷

2018:
3%

Book-to-bill ratio
net revenues

1.00 ↑

2018:
0.97

Organic revenue growth Global Key Clients
net revenues

5% ↓

2018:
10%

Arcadis Way implementation progress
as % of net revenues

63% ↑

2018:
33%

Arcadis' carbon footprint
MT CO_2 per FTE

2.49 ↑

2018:
2.98

Revenues that relate to relevant SDGs
as % of revenues

79% ↓

2018:
80%

↑ Improvement
↓ Deterioration
⟷ Unchanged

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2019 at a glance

Focus & Performance

Gross revenues
in € millions
3,473 ⬆ 2018: 3,256

Net Income from Operations per share
in €
1.42 ⬆ 2018: 1.01

Dividend per share
proposed, in €
0.56 ⬆ 2018: 0.47

Operating EBITA margin
as % of gross revenues
8.1% ⬆ 2018: 7.3%

Net Working Capital
as % of gross revenues
16.6% ⬇ 2018: 15.1%

Days Sales Outstanding
(DSO)
88 ⬇ 2018: 80

Return on Invested Capital
(ROIC)
6.1% ⬆ 2018: 4.7%

Net debt to EBITDA ratio
average
1.4 ⬆ 2018: 2.0

Free Cash Flow
in € millions
97 ⬇ 2018: 149

⬆ Improvement
⬇ Deterioration
⬌ Unchanged

Figures based on IAS 17 for comparison purposes. For the IFRS 16 figures see page 272.

For definitions and methods of measure for the indicators included on this spread, please refer to page 277. The indicators that fall within the scope of limited assurance of our external auditor are marked with the ✓ symbol. See page 269 for the Assurance report of the independent auditor, which includes details on scoping and outcomes.

Next generation thinking Sustainable delivery

Peter Oosterveer, CEO

Dear stakeholders,

Welcome to our 2019 Annual Integrated Report.

We are advancing our vision for the future of Arcadis against a backdrop of growing market opportunities driven by global trends. Continued urbanization drives demand for sustainable transportation solutions and affordable housing. Climate change creates growth in water solutions, resilience and a transition to zero carbon. Globalization drives multinational clients to consultancies that can provide services worldwide. Digitization drives the development of new business models and better-informed investment decision making in which we can play a key role. In the midst of all of this, we are seeking to improve quality of life by better understanding the human experience and connecting it with our deep asset knowledge. Our urban and industrial clients will benefit from this transformation, as the end user experience will inform our designs and solutions, making them inherently more relevant. Simultaneously, we have chosen to continue our path to be a leader in sustainability. We target carbon neutrality by 2030 for our global operations and increasingly seek to convince clients that sustainable solutions are intrinsically superior. Meanwhile, we continue to focus on our transformational program with the ten priorities to improve the performance of our overall business and build out our position as employer of choice. We remain committed to the UN Global Compact and its ten principles.

“We have made significant progress towards achieving our strategic targets as we generated growth, margin improvement and a better cash flow in the vast majority of our activities.”

Strategic progress

Our ‘Creating a Sustainable Future’ strategy is based on three pillars: People & Culture, Innovation & Growth, and Focus & Performance.

Advances we made in each of our three strategic pillars include:

People & Culture – Our focus on creating a stronger, unique culture with a growth mindset and a disciplined focus on pursuing the right clients while creating better financial performance is starting to bear fruit, especially in North America, Continental Europe and the UK. In addition, we are building on the foundation of the Grow Perform Succeed performance management framework that we first started implementing in 2018. We are on a journey to become an employer of choice. In 2019, we started piloting two new initiatives: Your Voice, our new employee engagement program and the Line Management Experience – a bespoke curricula for line managers at all levels. Our voluntary staff turnover decreased to 13.5% globally. We were able to achieve a significant decrease in voluntary turnover in North America, and improvements in UK, Asia, Australia Pacific, CallisonRTKL, Latin America, and the Middle East. We saw an increase in our total headcount with new joiners and overall lower leavers bringing us to 27,875 Arcadians at the end of the year, with increases in Asia, Australia Pacific and CallisonRTKL. The overall engagement score for Arcadis improved compared to 2017 – when it was last measured – to slightly above our target for the year.

Innovation & Growth – In Digital, more than one third of Arcadians have now completed our Expedition DNA basic digital training module. Employees now have different conversations about the business amongst each other, and with clients, which translates into winning and delivering more digital work. Our global solution leaders now fully own the digitization and automation of our existing business, resulting in a client focused acceleration of the transformation, and various wins around the globe. Ongoing development of our Data Analytics capabilities is essential here. New digital value propositions are arising, applying technology to bring our domain knowledge to market in different ways. The global digital incubation studio is working on the digital products of the future driven by our client needs. Our partnership with TechStars helps us to position further as Digital Frontrunner, with our teams working closely with startups to enhance our digital offerings. We are continuing with the TechStars partnership in 2020.

"Our people have embraced our digital agenda, and already this creates more opportunities for new business and better returns."

In 2019 we established the Enterprise Program Management Office (EPMO), with a formal program and change architecture for the Top Ten Priorities across the whole company. This has ensured the full alignment of plans for our transformation in all regions, bringing a focus on change, schedule, scope and business outcomes. The EPMO will maintain governance of the program working closely with initiative change leaders and regional CEO's, providing transparency of progress to the Executive Leadership Team across each dimension.

In sustainability, Arcadis has a 130-year heritage of providing sustainability-focused outcomes to clients. In 2019 we sharpened our external and internal sustainability objectives with the refinement of our sustainability strategy that will connect sustainability practitioners and services across Arcadis, set our ambition to become completely carbon neutral in the next decade, and support the passion that our people have to improve quality of life in the locations where they live and work.

Focus & Performance – We are on track to achieve our strategic targets set for 2020. Our revenue and margin growth in the fourth quarter contributed to an improved performance for the full year. We are pleased with the results in Asia, the Middle East and Latin America, following the actions we took. Our balance sheet is strong despite a lower free cash flow due to residual delays in cash collection in North America resulting from the Oracle Cloud implementation. When we announced our strategy 'Creating a Sustainable Future' in 2017, we defined a clear path on long-term value creation, we are pleased to see that our efforts deliver results.

Health & Safety

The health, safety, and well-being of employees and stakeholders is central to everything we do at Arcadis. The Health and Safety (H&S) Global Vision and Policy focuses on a culture that strives for zero incidents.

For the eighth year in a row, Arcadis' Total Recordable Case Frequency (TRCF) for 2019 (0.16, an 11% decrease from 2018 when it was 0.18), is at the lowest level since Arcadis began collecting global H&S data in 2004, when it was 1.13. The Arcadis TRCF has decreased by 52% over the past five years.

While the TRCF decreased, our Lost Time Case Frequency (LTCF) for 2019 (0.09) increased when compared to 2018 (0.06). Nonetheless, the Arcadis LTCF has decreased by 40% over the past five years. Arcadis' injury rates continue to remain far below the average injury rates of the publicly available US benchmarks for the architecture and engineering industry, which were 0.70 (TRCF) and 0.30) (LTCF) for the most recent reporting period (2018). Near miss reporting, a key process in helping to prevent incidents, continues to increase (up 18% since 2018), which is indicative of a continued improvement in hazard recognition and greater stewardship for sharing experiences to help prevent future injuries. No work-related fatalities occurred in the five-year period.

Resolving the Brazilian legacy issue

In December, we decided to stop investing in the ALEN associate and its participations in clean energy assets in Brazil. The re-assessment of the business case for the ALEN associate led to a provision of the exposure. This additional provision taken in the fourth quarter was €85 million, mainly for guarantees, and will not impact the income calculation for assessing the 2019 dividend. We have given the ALEN associate ample time to create a return on the investments in clean energy assets. The divestment process initially provided clear indications of serious interest by third parties, however developments in the fourth quarter, including the unsatisfactory performance of the biggest asset, resulted in offers that led us to re-assess our exposure. We have therefore decided to intervene, and to stop further investments in the ALEN associate. While disappointing, we are no longer willing to negatively impact our financial performance and expose Arcadis' stakeholders to a situation with uncertain outcomes.

World Business Council for Sustainable Development

In October I had the honor to be appointed to become a member of the Executive Committee of the World Business Council for Sustainable Development (WBCSD), effective the 1st of January 2020. At Arcadis, we deliver thousands of projects each year that improve quality of life for people around the world. But no company, working in isolation, can solve the world's most pressing challenges like climate change and resource scarcity. Our WBCSD membership is an important channel through which we amplify our efforts, by collaborating with other leading companies to foster a more sustainable world.

I'm passionate about this role and what this will bring to WBCSD, Arcadis and myself. With this role I will bring in the knowledge, experience and network of Arcadis to execute and implement the ideas and proposals we develop in concert with the WBCSD. In addition, it is great to talk to other business leaders from around the world and learn from their challenges and experiences and bring this to Arcadis to benefit from it.

Driving change

Our operating performance is steadily improving, and our legacy issues are being resolved, giving us more time to focus on developing future success for Arcadis. 2020 is the delivery year for the goals we set out in our 'Creating a Sustainable Future' strategy and I am confident in our ability to deliver on those.

The continued roll-out of the Arcadis Way program gives us even better control and more standardization in our core business processes, enhancing the possibilities for collaboration and insightful performance management. Our change programs in Digital and in Sustainability are maturing, increasing our relevance and attractiveness as a business partner for clients and an employer of choice for our people.

We propose a dividend of €0.56 per share, reflecting our confidence in future success.

A heartfelt thank you goes out to all our people for their contributions to our successful performance during the year. Whenever I visit our offices around the world, I can see the dedication and enthusiasm of our people and am often surprised by the creativity we bring to our solutions. I am proud to lead an organization with such great people who are enthusiastic about making a difference.

I thank our shareholders for their patience and belief in our way forward. I thank our clients for creating opportunities and for challenging us with their projects. We see those as moments to shine.

We are setting ourselves up to be successful and I anticipate we will see the benefits as we work with confidence on driving change through our digital transformation and focus on sustainability.

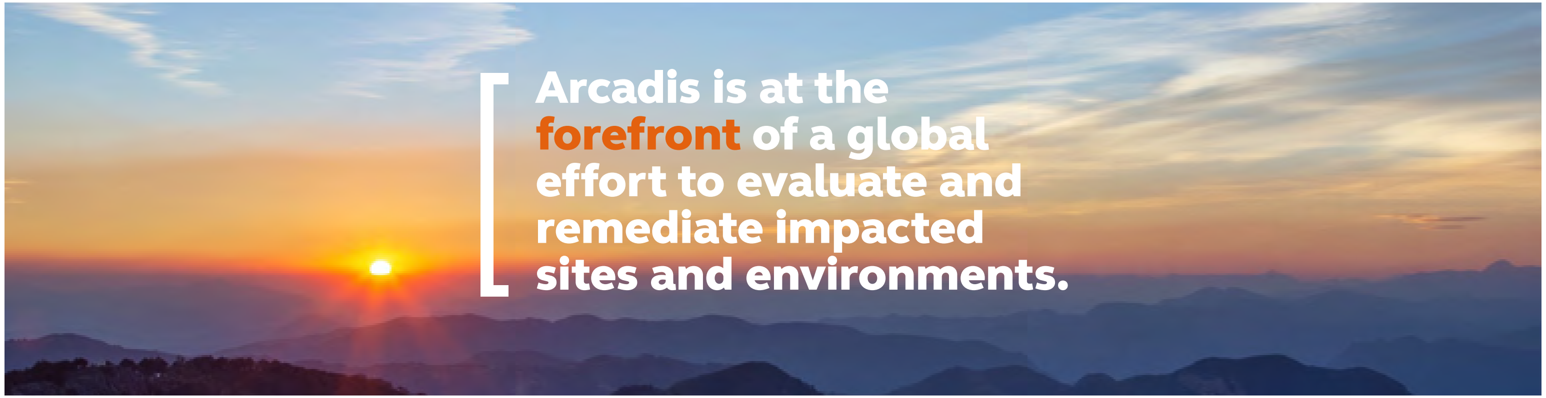
On behalf of the Executive Board
Peter Oosterveer

"Sustainability is going mainstream and we are well positioned to assist our clients in achieving their goals for a cleaner, more equitable future for all of our stakeholders."

"We are confident about our development and delivery of our 2020 strategic targets."

The Executive Board
Peter Oosterveer and Sarah Kuijlaars

PFAS: innovation in remediation



PFAS, or per- and poly-fluorinated alkyl substances, were incorporated in commercial, industrial and consumer products, including textile coatings, stain repellents, electronics and mist suppressants. PFAS were also components of firefighting foams known as Aqueous Film Forming Foam (AFFF). In recent years, under increasing scientific and regulatory scrutiny and community awareness, more is being understood about PFAS toxicity, environmental persistence, aquifer mobility and the potential for this emerging contaminant to bioaccumulate in natural environments.

Arcadis is at the forefront of a global effort to remove PFAS from impacted sites and environments, with over 400 projects in 12 countries. Our pipeline of PFAS projects at the end of 2019 amounted to € 500+ million in gross revenues. Two examples of Arcadis thought leadership in regard to PFAS restoration technology are presented below.

In 2019, Arcadis expanded its PFAS capabilities as it signed an agreement with EVOCRA, to license the sole rights to the EVOCRA technology for PFAS solutions. EVOCRA, an Australian-based water treatment company, have a patented technology that uses ozone fractionation to separate and concentrate PFAS from impacted media. Their process has been demonstrated at commercial scale as having the ability to remove PFAS and deliver an output that meets the most stringent discharge requirements set by regulators and other relevant authorities.

In early 2020, an exclusive teaming agreement with ABS Materials, Inc. (ABS) in the US was signed, focused on the removal of PFAS from water. ABS technology centers on patented molecularly engineered porous and mechanically flexible organosilica-based sorbents. PQ-Osorb® is the brand name for an ABS product designed to treat PFAS of all chain lengths – both long-chain PFAS such as PFOA and harder-to-treat short-chain compounds such as perfluorobutanoic acid (PFBA). The sorption kinetics (speed at which PFAS is removed) and loading capacity (pounds of PFAS per pound of media) are proving to be far better for PQ-Osorb® than similar technologies, and its effectiveness is not reduced by other contaminants in the water.

Delivery on our strategy

In March 2018, the Executive Leadership team was introduced. In 2018 and 2019 the focus was on getting the team to work well together. With the appointment of a new Chief People in October 2019, the team is complete.

With our Leadership Team well aligned to our strategic targets, the team actively drives the selected key priorities to achieve our strategic ambitions and we notice the resulting improvements.

After having given the ALEN associate ample time to create a return on the investments in the clean energy assets in Brazil, we fully supported the December decision of the Executive Board to stop investing in ALEN and take a provision of €85 million for the full exposure. Arcadis can now focus on its core business.

In summary for the year, the majority of the business delivered solid results. In particular North America and Australia performed well, as did The United Kingdom and Continental Europe. The firm measures taken by the Executive Leadership Team to address the underperforming parts have been appropriate and effective. We are pleased with the overall performance and improvements in the year and continue to firmly believe in the success of the organization in the years ahead.

On behalf of the Supervisory Board
Niek W. Hoek

Focus areas for the Supervisory Board in 2019

The Supervisory Board continues to believe that being disciplined and focused will be critical in achieving the Company strategy and in creating long-term value for all stakeholders. In delivering on the strategy, it is imperative that risks which have the potential to impact the Company are pro-actively addressed.

In exercising its task in 2019, the Supervisory Board, in coordination with the Executive Board and the Executive Leadership Team, identified and put special emphasis on the following Top Priorities for the year in order to deliver on the strategic plan and capital markets day commitments:

1. Make Every Project Count (MEPC) and increased utilization of the Global Excellence Centers (GEC's)
2. Play to win (country/client/opportunity selectivity)
3. Cash Collection and reduction of working capital
4. Employer of choice
5. Becoming a Digital frontrunner
6. Reducing indirect costs and organizational simplification

"2019 was the second year of the implementation of our strategy, 'Creating a Sustainable Future'."

Our business
more digital and sustainable

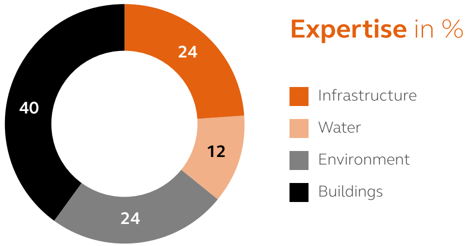
Arcadis' position in both global and local markets is strong. Our strategy seeks to enhance that position of strength by delivering optimal solutions to our clients. Increasingly, our project delivery will include digital components to drive efficiency and big data applications to improve end user insight. At the same time, sustainability will ever more be integrated into our solutions. Our broad expertise, diverse client roster, full lifecycle capabilities, and strong global spread, form a stable base for the future development of our business.

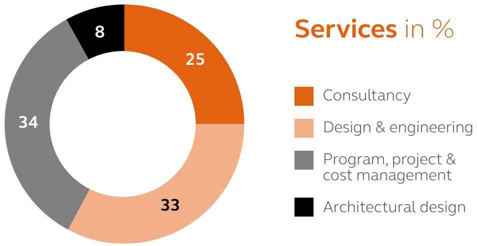
Expertise
Our expertise in infrastructure, water, environment, and buildings is global with a strong local reach. Combined with our deep market sector insights, our global solutions and collaborative teams we help clients overcome the most complex challenges, wherever they exist.

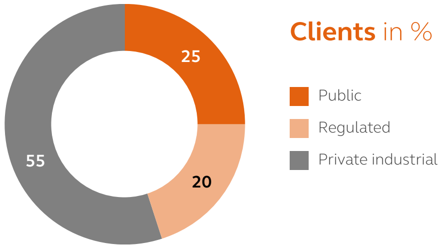
Clients
Our clients require partners capable of delivering best-in-class solutions regardless of where they are sourced. We leverage our expertise, share our knowledge, and create best value-added solutions and technology to serve our public, regulated, and private sector clients to the highest standard.

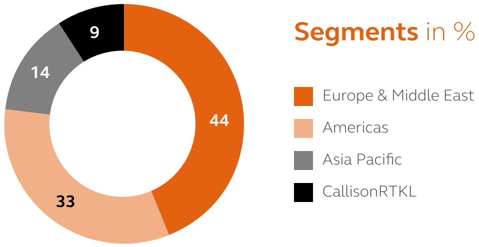
Services
In most major markets we offer our clients full lifecycle solutions comprising business advisory services, consulting, program, project & cost management, and design & engineering. We often develop client relationships that span the entire lifecycle of their assets.

Segments
Our diversified portfolio is based on a global presence, with leading positions in Europe & Middle East, the Americas, Asia Pacific, and through CallisonRTKL. In every location, we pair our deep global market sector knowledge with a strong understanding of local market conditions.









All percentages based on FY '19 net revenues

Our position in the industry value chain

We are a full-service design and consultancy organization. Our work spans the entire asset lifecycle. We consult for the full length of projects, or even assist clients with their investment programs, rather than just individual projects. These integrated solutions come with inherent advantages, preventing friction losses. Increasingly, the integration of digital components allows us to enhance the control of asset performance from conception to decommissioning and back into redevelopment.

We know our industry sectors well and share that knowledge globally to provide best-in-class sustainable solutions to our clients, wherever they are located. We cover the entire lifecycle but can also add value to clients in each individual phase of projects, working with partners and (sub)contractors to deliver complex projects on time and within budget.

We approach our clients' complex challenges with a carefully chosen combination of deep technical insights, solid business consulting skills, and strong management capabilities. This leads to sustainable outcomes for them at every stage. We translate our clients' sustainability policy in tangible measures in our projects and work hard at making our solutions as sustainable as possible. Increasingly, we pair this with digital capabilities, providing our clients more creativity and better user experience insights in the conceptual phase of projects, enhanced control during a project's realization, and better insights into an asset's performance during its lifespan.

Sustainability is rapidly becoming a key business driver for a growing number of clients. It can bring benefits like pricing power, cost reductions, a stronger labor market position, business opportunities for new products and services as well as a reduction in risks and better access to capital. Sustainability is therefore a design principle when we develop our solutions for clients.

Value creation How we create and share value

Arcadis' value creation process aims to maximize the outcome of our business processes for all of our stakeholders through the efficient use of the capital at our disposal. Our overall focus is on long-term value creation, while our three-year strategy cycle allows us to update our market relevance regularly to stay aligned with stakeholder interests.

Inputs using all resources wisely

Human and intellectual capital
Our 27,875 talented and professional people provide expertise, competencies and consulting skills to deliver value for clients throughout the lifecycle of natural and built assets.

Social and relationship capital
Sustainable results are achieved in close collaboration with clients. Success also hinges on good relationships with other key stakeholders, including employees, subcontractors and the communities in which we operate.

Financial capital
Equity and loans help us to invest in the development of our people, the growth of our business and our global office footprint, enabling us to service our local and global clients equally well.

Natural capital
Natural capital is the stock of renewable and non-renewable resources that combine to yield a flow of benefits to people. In our operations and through our services on behalf of clients, we endeavor to reduce the dependence on natural capital by limiting the consumption of energy, paper, water and other natural resources.

Digital capital
We are going through a digital transformation and as a result we develop digital assets which can become replicable digital solutions or platforms for our clients to drive down cost, increase efficiencies and make our solutions more end-user centric.

Value creation process

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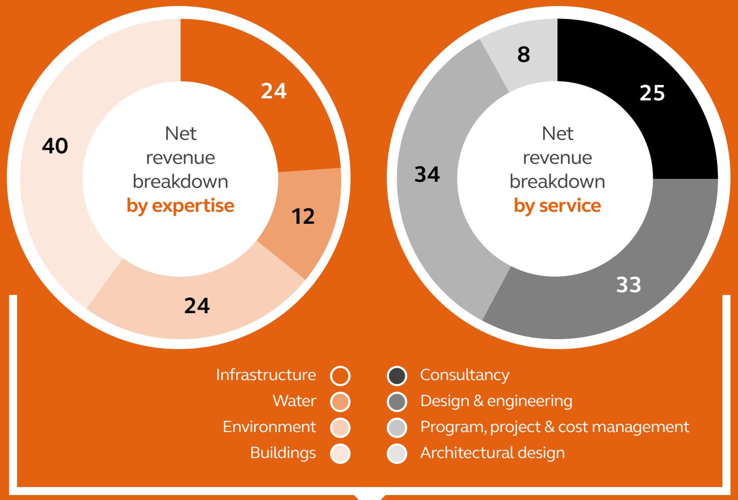
We deliver sustainable solutions through four categories of services in four project/expertise areas



Underpinned by

Shared values | The Arcadis Way | Global footprint and expertise | Technological capabilities

Output created per capital

Human and intellectual capital
High levels of employee engagement. Improvement in human and intellectual capital demonstrated by:
- Employee net promotor score at 19
- Successfully on-boarding of over 5,000 talents in 2019
- Continued investment in training & development for our employees
- Continuous commitment to Diversity & Inclusion leading to increased percentage in female employees
- Continued investments in Health & Safety, driving down total recordable case frequency

Social and relationship capital
- High level of client satisfaction demonstrated by repeat business. ~70% of 2019 projects involved work with clients who had worked with Arcadis before
- Building on brand awareness in every region through global and local campaigns
- Client experience score of 37 (Net Promoter Score)

Financial capital
Returning to organic growth, improving balance sheet, with improving indicators.
- Organic net revenue growth positive at 3% (year-on-year)
- Operating EBITA margin of 8.1% (based on IAS 17, 8.2% based on IFRS 16)
- Net debt to EBITDA ratio (average, for bank covenant purposes) improvement to 1.4

Natural capital
Through our projects we assist clients in building a Sustainable Future by providing integrated and sustainable solutions. For example, many existing projects revolve around improving quality and supply of water. In others, we remediated soil and water spills.
- Arcadis' carbon footprint (MT CO_2 per FTE) improved (from 2.98 to 2.55)
- 79% of revenues related to relevant Sustainable Development Goals (SDGs)

Digital capital
- BIM level 2 implementation up to 42% (2018: 34%)
- Voluntary Expedition DNA Basecamp participation is over 10,000 employees or >40% of total staff; 320 Arcadians completed Expedition DNA
- Established Arcadis Gen - a new global digital business that will help secure its position as the leading provider of data-driven products and solutions across the natural and built environment

Outcomes for our stakeholders

Employees
Pride, satisfaction and a great place to work:
- Employee net promoter score 19 (on a scale from -100 to +100)
- Voluntary turnover rate, now 13.5% (down from 15.6% in 2018)
- Increase in female percentage of total workforce to 38%, from 37% in 2018
- Health & Safety indicators well below public industry benchmarks

Clients
- 5% organic growth in key client work signals positive client experience
- Digitalized solutions, exploration of new technologies through co-creation
- Client approach via sector programs, core solutions and Global Cities
- Increasingly integrating sustainability in global solutions

Investors
Competitive and sustainable returns:
- Higher (proposed) dividend of €0.56 per share (an increase of 19%)
- Return on Invested Capital was 6.1% (based on IAS 17, 2018: 4.7%)

Civil society
- Assisting clients in dealing with the effects of climate change
- Launched Local Sparks community initiative in cooperation with Lovinklaan Foundation and KNHM
- Good health and well-being in our own operations
- Continued contribution to five relevant SDGs through client solutions

Digital pathway to a vibrant waterfront

Unibail-Rodamco-Westfield
North-side of Elbe waterfront in Hamburg, Germany

Being the iconic centerpiece of Hamburg's urban development project 'HafenCity', the 'Westfield Hamburg-Überseequartier' will offer office space, residential homes, entertainment venues and retail shops. A complex € 1 billion investment propelled by Arcadis' digitally enhanced program management capabilities.

Relevant SDGs:

11 SUSTAINABLE CITIES AND COMMUNITIES

Challenge

Building 14 multi-usage buildings on a 419,000 sqm site right in the heart of one of Germany's largest cities, in a densely populated urban area, with tight time and cost constraints – that's where Arcadis' long-standing program management expertise combined with smart Building Information Modeling come in handy.

Solution

Program Management 4.0 in XXL: in cooperation with our partner company vrame we set up a digital twin of the development project, allowing for anticipation of obstacles and optimizing of site logistics and construction workflows for the investor.

Impact

One of the largest and most ambitious urban development projects in Germany will soon improve quality of life in the 8th largest city in the European Union.

Digitalizing solutions

The rise of digital has been a key topic at Arcadis, ever since we crystallized our digital vision in 2018. The benefits that digital has to offer to clients are now clear, be it on a productivity, profitability or client experience level. These are much needed differentiators for us in an increasingly commoditized market, and we have only started unlocking their potential.

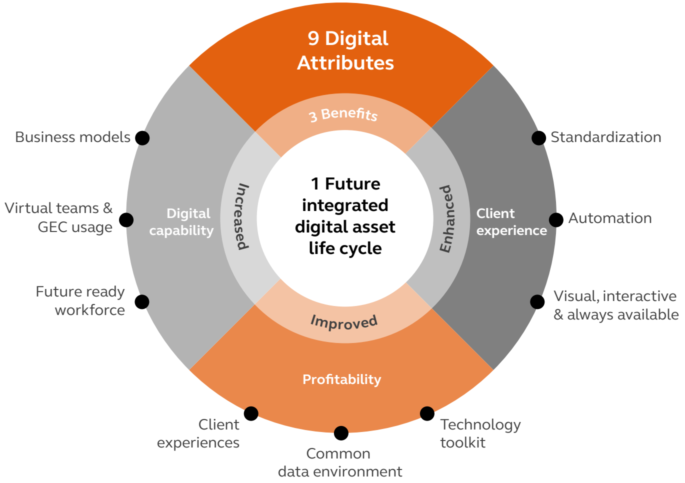
Digital transformation is a long-term journey and will have profound changes to how we practice our profession. However, for some of Arcadis' core business areas, the future has arrived faster than expected. Six of our largest solution areas are being digitalized in 2019 and 2020, and 23,000 designers, engineers and consultants are being upskilled with digital capabilities. A lot of hard work from all regions has gone into laying down the foundations and building our company's digital infrastructure backbone. As a result, we are now moving from understanding the relevant digital technologies available to us, to defining the roadmaps for digitalizing our core business and progressing with their execution, one solution area at a time.

We are seeing early adopters among our clients in every sector and region. In the Middle East, for example, some clients are keen and piloting advanced technologies such as Robotic Process Automation. Within our Property and Investment global market sector, there's a pull from clients for digital services around dashboarding and analytics, to meet their governance needs. In response, we're pioneering new digital value propositions that will save clients time and money and improve their experience.

In Environmental Restoration, digital data collection and visualization are game changers in productivity and decision-making. Here we are pushing digital tools such as FieldNow combined with the Tellus client portal. If we look at cost management services, we see a significant market opportunity around digital solutions and are accelerating the standardization and automation and using the data to offer added value services for clients. There's still a degree of variance in digital uptake from clients and our own teams across geographies. What's important is that we have the capabilities to lead, and now it's important to help clients speak the same digital language.

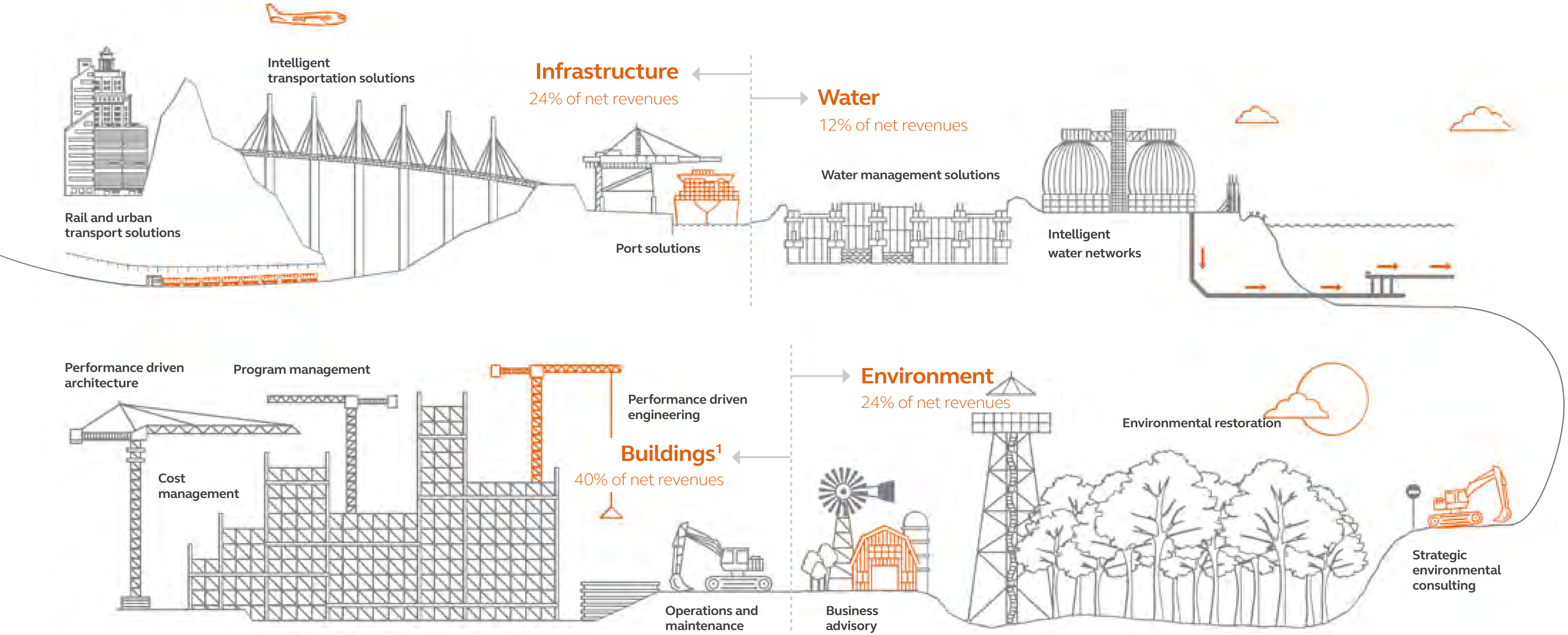
In 2019 we have developed roadmaps for digitalizing three of our eight service solutions. The roadmaps are based on nine digital attributes that we believe are critical to our digital transformation. All attributes are interdependent and complement each other. Standardization and automation are the fundamental starting points.

The reliance on virtual teams and Global Excellence Center (GEC) resources helps us offer a truly global capability, which contributes to improving the client experience. Since last year, the teams have added analytics, program management and cost management resources and capabilities. The roadmaps are landing well with our clients and we now need to apply them on projects and commissions. If we look at pursuits, there's a digital aspect for every project we're engaged in now. We are also starting to see some overlapping and integration of digital services across solutions – where we see BIM being linked to costing, forecasting and scheduling. We're starting to move to a space where we are future-oriented in our reporting, and that's a real white space in the industry.



Our business

Solutions are delivered cross sector, but can predominately be found in:



1 Including CallisonRTKL

The Ocean Clean Up Interceptor™

An innovative machine to rid rivers of plastic waste
Malaysia, Asia

Plastic waste in oceans is a significant problem, because as that plastic breaks down, it enters the human food chain through marine wildlife that ingest it. This plastic also kills millions of marine animals each year. By contributing to the Ocean Clean Up's effort to drastically reduce the amount of plastic polluted into oceans, we are improving quality of life for both animals as well as people all around the world.

Relevant SDGs:

Challenge

Our client the Ocean Clean Up needed project management support for a groundbreaking effort to address the problem of plastic pollution in rivers. They have developed the Interceptor™, an innovative, solar-powered and self-supporting, floating system that removes plastic and other debris from rivers. Roughly 1.15 to 2.41 million tons of plastic are entering oceans from rivers each year. The Klang river in Malaysia is that country's biggest contributor to ocean plastic waste. This river contains plastic waste coming from large cities such as Kuala Lumpur.

https://theoceancleanup.com

Solution

Arcadis was involved in the assembly, installation and commissioning of the Interceptor™ for the 'Pilot Project - River Plastic Interception' in the Klang river. The project was led by the Arcadis Malaysia team, which provided project management support, stakeholder management services and collaborated with the Arcadis Singapore team in providing a comprehensive environmental impact assessment report.

Impact

The Environment team from Arcadis was able to demonstrate how the Interceptor™ enhanced the current system of plastic waste removal in the Klang river and the connected estuary. By explaining the design of the Interceptor™ and analyzing both physical, biological and social factors, the Ocean Clean Up plans to tackle 1000 rivers around the world with the help of the Interceptor™, with the aim of reducing the amount of plastic entering oceans each year by 80%. They plan to accomplish this over the next five years.

Our passion
Improving quality of life

At Arcadis, our core values guide us in everything we do, while we base business decisions on our strategy. Our primary aim is long-term value creation for all stakeholders. Delivering sustainable solutions to clients, and the communities we serve.

Our values

We differentiate ourselves through our talented and passionate people, our unique combination of capabilities covering the entire asset lifecycle, our deep market sector insights, and our ability to seamlessly integrate health and safety, sustainability and digital components into the design of our solutions around the globe.

People first
We care for each other and create a safe and respectful working environment where our people can grow, perform, and succeed

Client Success
We are passionate about our clients' success and bring insights, agility, and innovation to co-create value

Integrity
We always work to the highest professional and ethical standards and establish trust by being open, honest and responsible

Sustainability
We base our actions for clients and communities on environmental responsibility and social and economic advancement

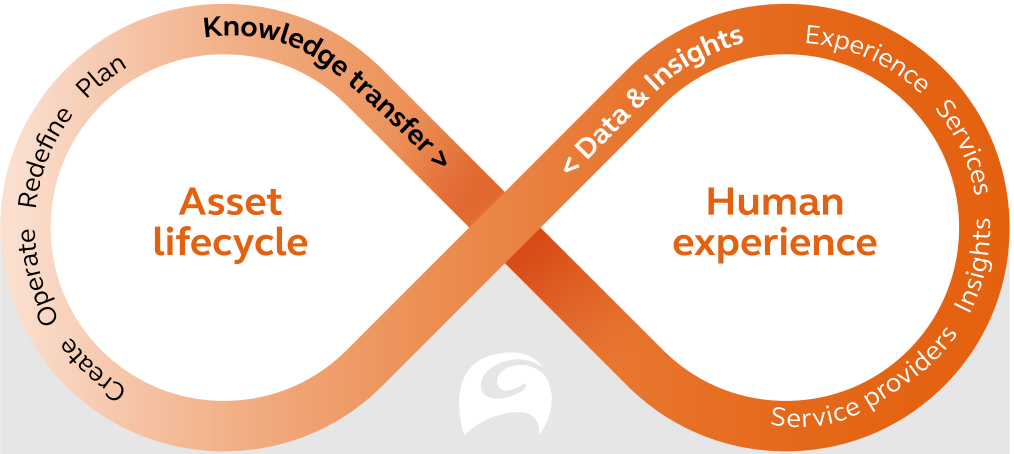
Collaboration
We value the power of diversity and our global capabilities and deliver excellence by working as One Arcadis

Our behaviors

- We value each other
- We deliver on our promises
- We always bring our best
- We work as One Team
- We dare to shape the future

Our Vision Improving quality of life

We Improve Quality of Life by better understanding the human experience and connecting it with our scalable asset knowledge.



The Arcadis Infinity Loop shows the continuous interaction of asset knowledge and human insights that will lead to enhancements in how we plan, create, operate and redefine natural and built assets.

People's lives have changed tremendously through the introduction of new technologies. Think about eating, shopping or travelling. These new experiences are not limited to consumers, but also impact the professional service space like financial services and mobility.

In our industry we see these changes first with, for instance, the onset of automated data gathering and computational design. Our Vision identifies two fundamental changes that will drive our success in the future.

The asset lifecycle will become heavily digitized, automated and intelligent. That is good news for Arcadis. Our deep asset knowledge combined with our data capabilities can be productized to improve the planning, designing, operating and maintaining of natural and built assets.

Secondly, in a data-driven world there is a unique opportunity to understand better what people need, how they live their lives, and how they interact with the assets we create and operate. This will allow us to help our clients to (co-)create better experiences for people.

This vision is perfectly aligned to our history and brings us closer to our on-going purpose of improving quality of life.

Area of focus

Our focus has been to concentrate our capabilities where they can drive value for our clients and make a difference for our people. This supports our ambition to be an employer of choice and enables us to deliver profitable growth and improved performance.

Mobility – Designing and orchestrating the enabling infrastructure, transportation and logistics networks of the future.

Places – Developing and regenerating neighborhoods, facilities, and workspaces to create a thriving and sustainable built and natural environment.

Resilience – Protecting and recovering from existing emerging risks – human and environmental – to safety, security and business continuity.

Resources – Empowering cities and entrepreneurs to close resource loops across energy, water, food and air (reducing pollution and waste), responsibly producing and consuming goods and services.

Arcadis in perspective

City of Antwerp
Belgium

Helping Antwerp realize its climate ambitions

Cities are under increasing pressure to adjust to climate change, rethinking their water systems and energy networks with resilience, the energy transition and carbon neutrality as main ingredients. The city of Antwerp is no different but has a unique opportunity to align this effort with already planned infrastructure adjustments.

Relevant SDGs:

Challenge

The city of Antwerp has voiced an ambition to cover its infamous ring road to improve living conditions in the city and enhance mobility. Arcadis is already working on the cover design. In addition, the city now sees the planned adjustments to the ring road as an opportunity to review its water and energy systems, thus driving the energy transition. It has asked Arcadis, in cooperation with AgenceTer, TVK, Ingenium and IBM to design a spatial concept which future proofs and optimizes these systems.

Solution

The Arcadis-led study and design will provide advanced insight in the current and future water and energy household of the city and the impact the new ring infrastructure can have on those systems and vice versa. With these results in hand, the city will be able to create a clear framework for investments, design and maintenance decisions in the coming decades.

Impact

This project contributes to the ambition of the city of Antwerp to be climate neutral in 2050. Due to its central position in the city, the ring road is extremely suitable to play a central role in the water and energy system of the city. Many surrounding city districts can be linked to new, climate-friendly water and energy networks. The ambitions are high, because in addition to innovation and sustainability, great importance is also attached to the spatial quality and the integration of these systems into the environment. Smart design solutions linking the useful to the pleasant.

Arcadis' journey Creating a sustainable future since 1888

1739 – Hyder Consulting can trace its roots back to this date

1888 – Arcadis founded as association for wasteland redevelopment, promoting agricultural productivity of Dutch heather lands

1925 – Ventures into rural development

1959 – Start of export of water and infrastructure services to emerging economies

1960 – Branched out into urban development

1972 – Association (KNHM) and Company (Heidemij) are separated

1990 – Start of European expansion strategy

1993 – Merger with Geraghty & Miller brings US expansion and NASDAQ listing

1997 – Introduction of Arcadis brand

The Arcadis journey

2007
Acquisition of RTKL brings high-quality architectural design in US, UK, and Asia

2009
Acquisition of Malcolm Pirnie creates leading global position in water

2011
Acquisition of EC Harris brings stronger position in UK, and growth in Middle East and Asia

2012
Acquisition of Langdon & Seah creates leading position in cost and project management in Asia

2014
Acquisition of Hyder Consulting and Callison brings further strength to engineering and architecture

2015
Introduction of one global brand

ARCADIS Design & Consultancy for natural and built assets

2017

2019
Acquisitions of E2 Manage Tech, SEAMS and EAMS expand digital capabilities

2020

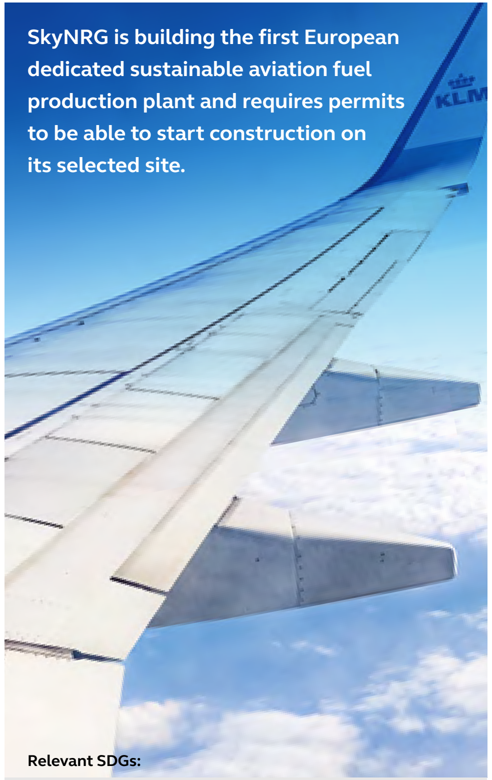
2030

6 CLEAN WATER AND SANITATION
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
11 SUSTAINABLE CITIES AND COMMUNITIES
13 CLIMATE ACTION
15 LIFE ON LAND

SkyNRG

Helping to make flying more sustainable

SkyNRG is building the first European dedicated sustainable aviation fuel production plant and requires permits to be able to start construction on its selected site.



Relevant SDGs:

Challenge

The refinery is a frontrunner in the energy transition. The development of this refinery has a large impact in the region (Northern Netherlands) and other companies are involved, meaning the project requires strong stakeholder management capabilities. This project has spin-off potential throughout the region.

Solution

Arcadis itself is already a client for SkyNRG as we participate in the KLM Corporate Biofuel program which uses their products. It showed the client that we share their vision and values. The client relies on Arcadis to acquire the permit for the construction of their facility. Working closely with client and the engineering company, Arcadis facilitates and delivers the permit application, the studies required, as well as the necessary stakeholder management and process management to acquire the required permits. For the feedstock analysis an inventory of further studies will be required as well.

Impact

Both KLM Royal Dutch Airlines and SHV Energy have committed themselves for a 10-year period to the purchase of respectively sustainable aviation fuel and BioLPG.

Executive Board report

This Executive Board report describes how we have come to our strategy. It details how we took into consideration our strategic context and operating environment, and how we translated this into three strategic pillars with corresponding targets and into ten priorities for improved short and long-term performance. It explains our accomplishments across the strategy pillars, as well as in our operating segments. The Report includes information on Governance and Compliance.

Our strategy for 2018-2020

Arcadis focuses on long-term value creation. Our three-year strategy cycle allows us to update our market relevance regularly to keep in tune with stakeholder interests. With our current 'Creating a Sustainable Future' strategy, we focus on profitable growth, invest in digitization, improve delivery for clients and build a workforce fit for the future.

Progress in 2019

Key Performance Indicators were identified for all three pillars and we are pleased with the progress to date, which includes:

People & Culture

In 2019, implementation of the global performance management framework, Grow Perform Succeed (GPS), continued. GPS focuses on continuous and meaningful performance conversations between line manager and direct reports. In April 2019, the GPS learning experience became available to all Arcadians. This online learning solution helps educating colleagues about GPS, the culture we want and how it benefits our people.

In 2019, we launched Line Management Experience, providing managers with the tools, information, support and development needed to be successful in their role from a technical and people skill perspective. This online program is delivered globally and therefore it is consistent, scalable and accessible to all Arcadis managers around the world.

As a result of these programs we saw an improvement in voluntary turnover to 13.5%, compared to 15.6% in 2018.

Innovation & Growth

To educate our workforce in a common language more than one third of Arcadians have completed our Expedition DNA basic digital training module. Our global solution leaders now fully own the digitization and automation of our existing business, resulting in a client focused acceleration of the transformation. New digital value propositions are arising, applying technology to bring our domain knowledge to market in different ways.

We sharpened our external and internal sustainability objectives with the refinement of our sustainability strategy, aimed at making sustainability an integral part of how we operate in everything that we do.

In 2019 we successfully launched our Top 250 key client program, which is continuing in 2020 with a further refined focus on the Top 200 key clients. With these clients, we generate 50% of our revenues and 60% of our profits. Through this program we focus on the top local, regional, and global key clients by prioritizing our resources to work on strategic pursuits and strategic projects for them: bringing the best of Arcadis together to meet the most complex challenges of the markets and clients we serve.

Focus & Performance

In 2019 we have further focused our portfolio. In Asia we have exited countries where we were underperforming. In the Middle East we have implemented our strategy of being more selective in our choices on where to participate. Both have resulted in increased margin and increased management focus on those parts that provide profitable growth. 'Make Every Project Count', the program focused on improving project performance by aligning behaviors, processes and systems to the 'Arcadis Way' is an important lever to improve our financial performance. In 2019, the results of this program became visible in several of our regions and countries. We recognized a reduction of the number of loss-making projects and more focus on project management capabilities and selective tendering. This success came from better collaboration, client selection/negotiation and operational discipline. We have seen fewer negative surprises in our project performance in 2019.

As a result of this increased focus, we delivered an improved margin, a solid cash flow and further strengthened our balance sheet. The accomplishments to date combined with our continued focus on the implementation of the three strategic pillars will enable Arcadis to achieve its targeted operating EBITA margin in the range of 8.5 - 9.5% in 2020, as well as to satisfy other key performance indicators.

Our strategic targets

Voluntary staff turnover
- Voluntary staff turnover < market

Staff engagement
- Engagement score improving annually

Brand
- Top-five brand awareness in markets we serve

Clients
- Top-quartile performance for client experience

Organic revenue growth
- Surpass GDP growth in our markets
- Organic revenue growth for Global Key Clients two times overall growth

Innovation
- Digital adoption by our people and our clients

Sustainability
- Significantly contribute to UN Sustainable Development Goals

Margin
- Operating EBITA margin trending to 8.5%-9.5% of net revenues by 2020

Net Working Capital/DSO
- Net Working Capital < 17% of gross revenues
- DSO < 85 days

Return
- Return on Invested Capital (ROIC) > 10%

Dividend
- 30%-40% of Net Income from Operations

Leverage
- Net debt to EBITDA ratio between approximately 1.0 and 2.0

Comprehensive analysis

The 2017 strategic review involved a comprehensive analysis of factors in four broad areas, as summarized on the next pages:

1. Mega trends – To adapt our business, we need to understand the trends shaping our world. For Arcadis, the four key trends are: urbanization & mobility, sustainability & climate change, globalization and digitalization (see page 36). These trends form the basis of our strategy.

2. Stakeholder dialogue – Our aim is to create value for all stakeholders. To do so, we focus our strategy on issues that are most 'material' to both our business and our stakeholders. Based on our engagement with stakeholders, we have identified key messages and material topics. These provide constant input to our strategy (see pages 37, 38 and 39).

3. Sustainable Development Goals – The UN Sustainable Development Goals (SDGs) were launched in 2015. Our business – and our passion to improve the quality of life for our stakeholders – fits well with the SDGs. We aim to contribute directly to these goals – we have integrated the most relevant into our strategy, operations and reporting (see pages 40, 41 and 42).

4. Competitive landscape – How we position ourselves depends, to a large degree, on developments within our industry. When implementing our strategy, we look at these developments in detail: changing client behavior, the shift to digital, the growing need for sustainable solutions, consolidation within the sector – and the increasing scarcity of skills and talent (see page 43). Where necessary, we adjust our strategy to take account of these developments.

Connectivity matrix

To bring all this information together, we have a 'connectivity matrix' on pages 45 and 46. This shows our value creation process, from beginning to end. It also shows how Arcadis uses its strategic context to update its corporate strategy, covering our three strategic pillars, corresponding risks, material topics, key performance indicators and targets (for selected indicators).

Unilever Foods Innovation Centre, Unilever
Wageningen, The Netherlands

HIVE for collaboration triple helix in food

To further improve their sustainable impact in the food sector, Unilever built a new R&D center. Arcadis was responsible for project management and delivered cost management services, technical expertise, guidance of the building activities (interior) and quality control.

Relevant SDGs:

Challenge

The R&D departments for the Foods division were spread over three different countries in Europe. Unilever wanted to strengthen their R&D capabilities and innovation power by uniting the departments at a strategic location.

Solution

The R&D departments are united in Hive, Unilever's Foods Innovation Centre. This new state of the art sustainable innovation center is located on the campus of Wageningen University & Research; at the heart of the Silicon Valley of foods. Hive enables Unilever to work in partnerships with leading academic research centres, start-ups and external partners.

Impact

Hive is one of the most sustainable multifunctional buildings. The building is BREEAM Outstanding certified and energy neutral due to the compact design, high level of insulation and the 1,500 solar panels. The interior is designed from a circularity perspective with a strong focus on well-being of the end users.

Strategic context
The world in which we operate

Trends in our operating environment, messages from our stakeholders, the Sustainable Development Goals, and our competitive landscape are all important inputs for our strategy, which translates into three strategic pillars.

Our operating environment

Mega trends

Urbanization & mobility

Sustainability & climate change

Globalization

Digitalization

Stakeholder dialogue

Employees

Clients

Suppliers

Civil society

Investors

SDGs relevant for Arcadis

Competitive landscape

Changing client patterns

Shift to digital

Industry consolidation

Scarcity of qualified people

Strategic messages

- Create an environment where all our people can be their best
- Attract, develop, and retain the workforce of the future

- Grow through providing integrated and sustainable solutions to our clients
- Be a digital front runner

- Focus on where we can lead
- Deliver client and project excellence

Strategic pillars

People & Culture

Innovation & Growth

Focus & Performance

Mega trends
That create opportunities

Understanding the world around us is the foundation for everything we do. We continuously develop our organization and our value propositions to benefit from changing conditions in our external landscape, and use them to create greater value for our clients. To ensure our strategic direction remains aligned to the latest developments in our markets, we consider the following key trends shaping our operating environment: urbanization & mobility, sustainability & climate change, globalization and digitalization.

Urbanization & mobility

Global population growth and migration have led to rapid urbanization and increased congestion of transportation infrastructure.

Sustainability & climate change

Demand for solutions that preserve and protect natural resources has never been greater. Rising sea levels and scarcity of clean water are critical issues around the world.

Globalization

Multinational companies require support wherever they operate and look for providers they can work with seamlessly around the world.

Digitalization

Digital technologies open new possibilities to serve our clients and are changing the way we work and providing opportunities for different business models.

Trend-driven Opportunities

- Leverage global expertise and partnerships to grow the business.
- New services through human-centered design supported by digital technology.
- Design sustainable and resilient cities and industries.
- Use of global network to support operations around the world.

Our positioning

Leading Design and Consultancy for:

- Sustainable and resilient cities
- Smart infrastructural solutions
- Future-proof industries

Stakeholder dialogue
Acting on material matters

We strive to create value for all stakeholders and aspire to understand and act upon material matters for our business, stakeholders and society. Our strategy is based on our stakeholder engagement program and a materiality assessment.

The material topics for our business are those of greatest importance to our stakeholders and leadership team. These twenty topics are shown in our materiality matrix.

Stakeholder dialogue

At Arcadis, we seek to engage in and create dialogues with stakeholders, to deepen our insights into their needs and expectations, and to develop sustainable solutions which serve them better in the short, medium and long-term. In addition, stakeholder engagement helps us to manage risks and opportunities in our operations.

In 2017, Arcadis performed a global and in-depth stakeholder engagement process in cooperation with the Dutch Association for Investors for Sustainable Development (VBDO) as input for our strategy development process. Meanwhile our stakeholder dialogue continues daily with clients, shareholders, and employees in the course of regular engagements, update meetings and surveys. At the end of 2019 we have embarked on a new global stakeholder engagement process in preparation of our strategy update in 2020.

Global materiality survey

Arcadis uses the concept of materiality as defined by the Global Reporting Initiative, and considers economic, social, environmental and governance impacts that cross a threshold in affecting the ability to meet the needs of the present without compromising the needs of future generations.

The global materiality survey was based on four themes, and 37 potentially material topics, whereby these topics resulted from an internal materiality assessment on a longer list of recognized potential topics (ca. 60 to 70).

Stakeholders were asked how important the topics were in relation to how they impact them, their community and/or their business. All topics were scaled from one to ten, and open questions allowed stakeholders to add missing topics. Equal weight was given to the output of each group of stakeholders.

Our materiality matrix recognizes two axes/views. If a topic is ‘relevant for stakeholders’ it reflects the view of employees, clients, suppliers, civil society and investors. If a topic is significant considering economic, social, environmental, and governance impacts, it reflects the view of the Executive Board and Arcadis’ leadership.

From the 37 potentially material topics, twenty were considered material by both stakeholders and management. These twenty topics are listed and described on page 39.

The key step in our strategic process is to link each of our material topics to corresponding key performance indicators and targets defined by our strategy. In doing so, we monitor our progress and make ourselves accountable to our stakeholders in a transparent way. The outcome of this connectivity exercise is to be found on pages 45 and 46.

Materiality matrix

Economic

1. Direct economic value generated
2. Direct economic value distributed
3. Dividend policy
4. Share price performance
5. Profit & Loss performance
6. Organic revenue growth
7. Inorganic revenue growth
8. Balance sheet performance
9. Cash flow performance
10. Share buy-backs
11. Share dilution
12. Portfolio management
13. Indirect economic impact
14. Innovation & digitalization
15. Brand awareness
16. Client experience

Social

17. Employee engagement
18. Talent management & learning and development
19. Fair remuneration
20. Labor rights and relations
21. Diversity and inclusion
22. Health and safety
23. Human rights
24. Political contributions

Environmental

25. Use of materials
26. Energy and emissions – carbon footprint
27. Use of water
28. Treatment of waste
29. Circular economy
30. Biodiversity impact
31. Habitats
32. Environmental non-compliance
33. Climate change

Governance

34. Business ethics
35. Tax policies and compliance (paying fair taxes)
36. Privacy (and personal data protection)
37. Risk management framework

Arcadis' material topics

	Material topic	Description	Most relevant for
1	Direct economic value generated	The Company's ability to generate revenues	Management, employees
2	Direct economic value distributed	The Company's financial return to society (employee wages and benefits, dividends, taxes, etc.)	Management, civil society
5	Profit & loss performance	The Company's ability to generate profits (Net Income)	Investors, management
6	Organic revenue growth	The Company's ability to grow revenues organically from its existing business activities (excluding acquisitions)	Investors, management
8	Balance sheet performance	The Company's ability to maintain its leverage covenants ratios below maximums set by Investors	Investors, employees
9	Cash flow performance	The Company's ability to manage working capital and generate cash flows	Investors, management
14	Innovation and digitalization	The Company's ability to provide innovative solutions, and its ability to develop and apply technological solutions	Clients, employees
15	Brand awareness	Refers to the extent to which customers are able to recall or recognize our brand	Clients, management
16	Client experience	The outcome of the interaction between Arcadis and its customers over the duration of their relationship	Clients, management
17	Employee engagement	The Company's ability to engage and retain high-quality staff	Employees, management
18	Talent management & learning and development	The Company's ability to attract and develop high-quality staff	Employees, management
21	Diversity and inclusion	The diversity of the Company's governance bodies, employee base, and project teams	Employees, management
22	Health and safety	The actual performance of the Company in regard to health and safety of personnel	Employees, management
26	Energy and emissions – carbon footprint	The direct/indirect energy consumption in the Company's own activities and direct/indirect emissions of greenhouse gases caused by the Company's own activities (scopes 1 and 2), and in the projects in which the Company is involved (scope 3)	Civil society, employees
32	Environmental non-compliance	The extent to which the Company complies with environmental laws and regulations	Civil society, employees
33	Climate change	The extent to which the Company designs strategies and solutions to deal with the impact of climate change on businesses and projects	Civil society, employees
34	Business ethics	The way the Company approaches business ethics and acts with integrity, both internally and towards its stakeholders	Employees, suppliers
35	Tax policies and compliance (paying fair taxes)	The Company's approach to paying fair taxes across the globe, and adherence to local tax laws and regulations	Employees, suppliers
36	Privacy (and personal data protection)	The Company's approach to safeguarding (stakeholder) data, and adherence to privacy laws and regulations	Employees, management
37	Risk management framework	The quality of the Company's control framework, designed to identify and manage risk exposure	Suppliers, civil society

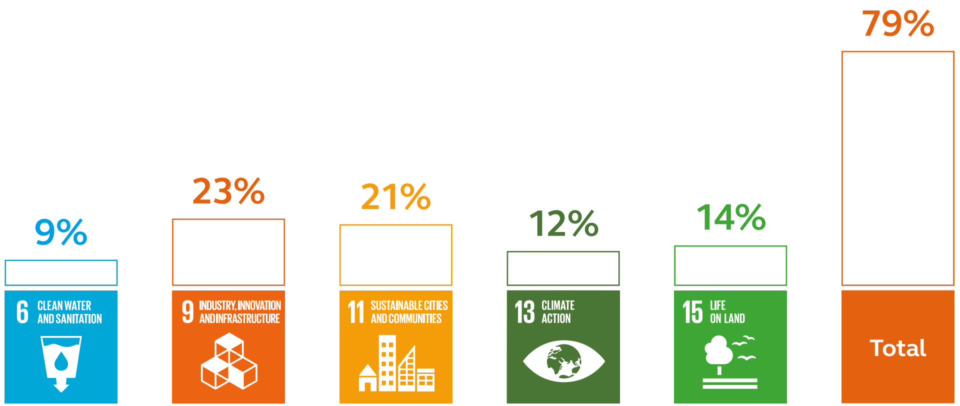
Supporting the Sustainable Development Goals
As relevant for Arcadis

The United Nations Sustainable Development Goals (SDGs), seek to drive sustainable development on carefully chosen topics around the world. We contribute to the Goals through the project work we do on behalf of clients. Our focus is on 5 carefully selected SDGs.

Sustainable Development Goals

Our focus on the Sustainable Development Goals stems from our ambition to improve quality of life in everything we do. Within our project activities for clients, our contributions focus on five SDGs.

In 2019, our high-level analysis of SDG contributions provides the following outcome:



We are working on the development of a more granular measurement system for our SDG contributions as part of a bigger non-financial reporting program. Once this is in place, we will initially focus on the larger projects, with a longer-term plan of including most of our revenues under this reporting approach, thus refining and further focusing our SDG contributions.

Clean water and sanitation

Arcadis' specialist teams of engineers, scientists and consultants around the globe provide safe and secure water technology and innovations that are built to withstand the demands of a rapidly changing world. Our focus is on the entire water cycle - from source to tap and back to nature. Arcadis' leading practices in water supply and treatment, conveyance, water resource management, and industrial water, including water reuse, provide a strong contribution to this SDG.

In Los Angeles, Arcadis worked on the new Albion Riverside Park helping to reconnect the Lincoln Heights community of Los Angeles to the Los Angeles River. The project consisted of sustainable practices such as Low Impact Development and Green Infrastructure measures to improve stormwater quality before it's discharged into the Los Angeles River and, ultimately, the Pacific Ocean. In addition to collecting, treating and infiltrating onsite runoff, the city can now divert stormwater and dry weather flows from an existing storm drain, which can be treated and used within the park.

Industry, innovation and infrastructure

World population is set to hit nearly ten billion by 2050. Combined with rapid urbanization, public budget pressure and climate challenges, mobility requires innovative answers. Arcadis' state-of-the-art passenger and freight rail, tram or metro, high capacity bus, stations or high-speed rail solutions meet this challenge We connect communities safely, effectively and in balance with the natural environment. Our Transport Orientated Development Solutions, and Mobility Oriented Development, creating the best solution for our clients and commuters worldwide.

In Chicago, Arcadis was selected as managing partner of Elevated Solution Partners – a joint venture with Jacobs and Ardmore Roderick – to serve as Chicago Transit Authority's (CTA) owner's representative for the first phase of the Red and Purple Modernization (RPM) program. It will be the largest capital improvement project in CTA history. This project will improve rider experience, reduce overcrowding and help CTA meet rapidly growing demand for transit service in Chicago. The project corridor is a 9.6-mile stretch of track that was built nearly a century ago. The aging infrastructure requires frequent maintenance, which is costly and hinders service.

Sustainable cities and communities

The world is changing faster than ever before as Earth's rapidly growing population flocks to urban centers, placing ever-increasing pressure on resources, space and safety. Our cities need to respond to these stresses and quickly – their livability and competitiveness depends on it. Arcadis works with cities across the world, giving them a competitive edge and improving quality of life for their residents, visitors and businesses by building programs that expand resiliency, encourage regeneration, and maximize mobility.

In Lisbon, Arcadis signed the Lisbon Corporate Mobility Pact (CMP). Under the leadership of the City of Lisbon, Arcadis, BNP Paribas, Brisa, Deloitte, Eaton, EDP, BCSD Portugal and WBCSD, the CMP provides a platform for public-private collaboration. It aims to implement mobility solutions and accelerate the sustainable urban mobility transformation. All stakeholders of the CMP committo stand by the key principles of collaboration, engagement, transparency, and security. The CMP was announced in a speech by the Mayor of Lisbon, Fernando Medina, together with the CEOs of Arcadis, Brisa and EDP.

13 CLIMATE ACTION

Climate action

While Arcadis itself in 2019 issued its ambition to become carbon neutral by 2030, our impact can be much bigger if we continue to help our clients reduce their climate impact. In addition to work on eradicating the causes of climate change we increasingly assist communities with strategies to combat the effects of this global threat.

In the north of the Netherlands, Arcadis is working on the permits and health & safety engineering for the first European production facility for sustainable aviation fuel (SAF). The feedstocks used for production will be waste and residue streams, such as used cooking oil, coming predominantly from regional industries. The facility will run on sustainable hydrogen, which is produced using water and wind energy. Thanks to these choices, this sustainable aviation fuel delivers a CO2 reduction of at least 85%, compared to fossil fuel. The use of SAF will also contribute to a significant decrease in ultra-fine particles and sulphur emissions. From 2022, the plant will produce 100,000 tons a year.

15 LIFE ON LAND

Life on land

Land degradation is one of the world's most pressing environmental problems, happening at an alarming pace, and it will worsen without rapid remedial action. While land degradation is largely associated with unsustainable agriculture practices, past industrial activity has also rendered land unusable. Arcadis assists clients in turning these contaminated properties into sustainable and productive assets.

In 2019, Arcadis obtained the sole rights to the EVOCRA technology for PFAS solutions. This technology, which has already been proven at commercial scale on two projects in Australia, is an addition to Arcadis' existing suite of PFAS solutions. PFAS, or per - and poly-fluorinated alkyl substances, were incorporated in commercial, industrial and consumer products. In recent years, under increasing scientific and regulatory scrutiny and community awareness, more is being understood about PFAS toxicity, environmental persistence, aquifer mobility and the potential for this emerging contaminant to bioaccumulate in natural environments and enter the food chain. Arcadis is at the forefront of a global effort to remove PFAS from impacted sites and environments, with over 75 projects, representing over 300 individual sites in 12 countries.

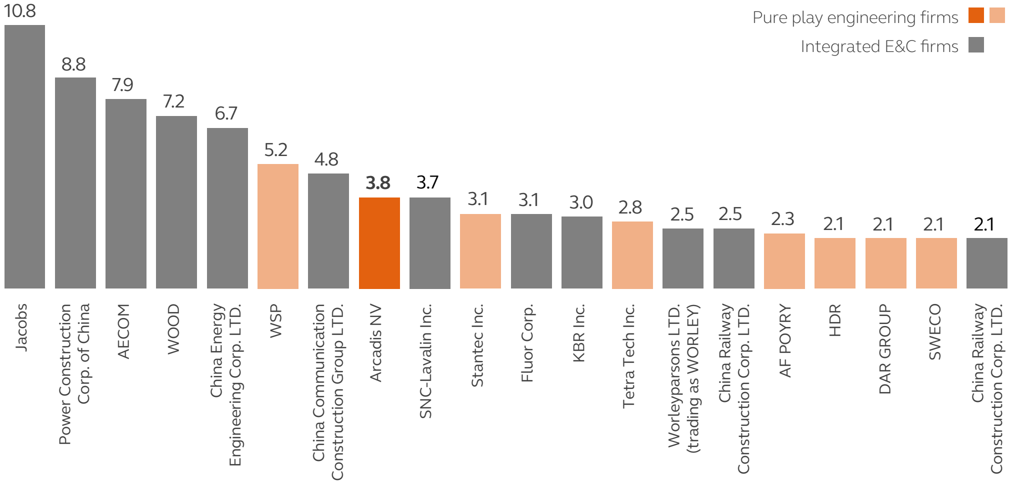
Competitive landscape

Developments in the industry and competitive landscape are relevant for how we want to position ourselves as Arcadis. While industry consolidation continues and attracting qualified staff remains challenging, two important trends are currently driving our markets: sustainability and digitization. In sustainability, we used 2019 to develop a new strategy, more focused on creating impact in the most relevant areas of our business. The pace of digital development in our industry is increasing. New competitors are entering the market with vastly different characteristics (low legacy costs, high R&D expenditure) and while we are in the process of digitizing our existing offering, we are also taking a next step with our investment in Arcadis Gen (see page 70).

Arcadis operates in a global addressable market of over US$500 billion, growing in line with GDP. We are a global top-ten player with a top-three position in Design & Consultancy, and our business is well diversified between emerging and mature markets, public and private sector clients, and service areas. This balanced approach is the best guarantee of our ability to benefit from the long-term growth drivers and key client trends in our markets.

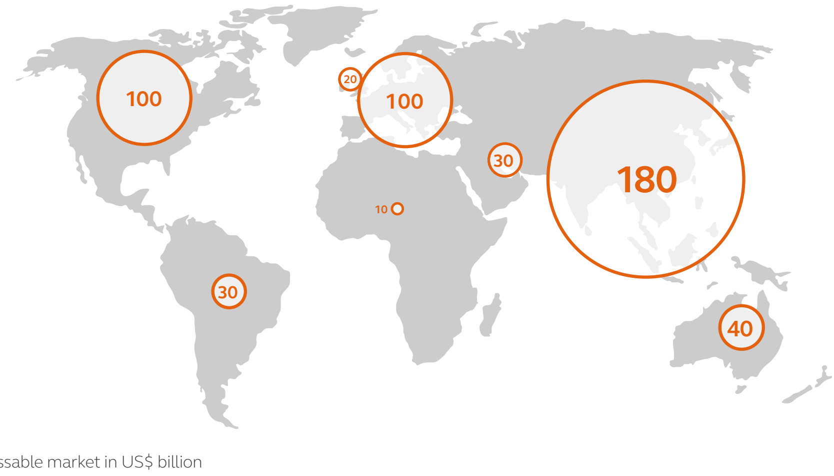
In the market there are several global players and many local ones. The global players mainly compete based on brand, knowledge, and cost efficiency. Arcadis is one of the global players. The combination of global presence, strong local positions, our expertise of infrastructure, water, environment, and buildings and the increasing integration of digital technology and sustainability in our solutions give us the ability to provide the best value-add to both our global and local clients.

Global players



Source: ENR The Top 225 International Design Firms 2019; based on 2018 Revenues

Global market



Wonderwoods Development
Utrecht, the Netherlands

Vertical forest: oxygen for the city

Arcadis was on the development team from the very beginning and helped to develop the concept of this award-winning building in the center of Utrecht. At the moment, we are a member of the construction team and deliver design and engineering services focused on landscaping disciplines, building installations, building physics, (spatial) planning and BREEAM-certification.

Relevant SDGs:

Challenge

By 2050 70% of the global population lives in urban areas. How do you keep the city livable and how do you ensure that the quality of life improves? With that question in mind Wonderwoods is developed and is expected to have positive effects on air quality, urban heating, congestion and biodiversity and of course on people.

Solution

Wonderwoods is a mindset, a place focused on healthy urban living, where all aspects of life come together: living, working, leisure and culture. The project consists of two green and almost energy neutral towers and is located near Utrecht Central Station. Start construction: autumn 2020.

Impact

Wonderwoods comprises 360 trees, and 9,640 bushes and shrubs that together absorb 5.4 tons of CO_2 and produce 41.4 tons of oxygen per year. Rain will be collected to water the greenery in and on the facade and roofs in hot periods for cooling down the surrounding area. The green concept of Wonderwoods provides a healthy, creative and more productive living and working environment.

www.duurzaambedrijfsleven.nl

Connectivity matrix

The strategic context

Mega trends
Urbanization & mobility
Sustainability & climate change
Globalization
Digitalization

Stakeholder dialogue
Employees
Clients
Suppliers
Civil society
Investors

SDGs relevant for Arcadis

Competitive landscape
Changing client patterns
Shift to digital
Industry consolidation
Scarcity of qualified people

Strategic messages	Strategic pillars	Principles	Related risks
Create an environment where all our people can be at their best Attract, develop, and retain the workforce of the future	People & Culture	**People first** • Be the employer of choice • Create an environment to grow, perform, and succeed **Living our values** • Foster a balanced culture that is driven by our core values • Create business value through sustainable solutions **Attract, develop, and retain the workforce oWf the future** • Develop our people and recruit missing capabilities for future needs • Embrace diversity of capabilities and people to facilitate our success in the future	• People & Capacity risk • Capability & Innovation risk • Health & Safety risk • Regulatory & Policy Compliance risk
Grow through providing integrated and sustainable solutions to our clients Be a digital front runner	Innovation & Growth	**Advise & deliver sustainable solutions** • Build scale where we can both advise and deliver • Apply integrated thinking to solve complexity for clients **Digital innovation** • Scale existing technologies • Explore new technologies in co-creation with clients **Local strength, global reach** • Utilize local market knowledge and deep client relationships • Leverage global experience for best-in-class solutions	• Market risk • Client & Opportunity risk • Capability & Innovation risk • Information Technology risk • Information Security risk • Transformational Programs risk • Acquisition & Divestment risk
Focus on where we can lead Deliver client and project excellence	Focus & Performance	**Focus where we can lead** • Build leadership positions based on relevance for clients, local presence, and global positions • De-prioritize businesses that fail to meet our criteria **Client & project excellence** • Disciplined project and client selection and improved project delivery • Create consistency through the Arcadis Way **Competitive delivery models** • Optimize delivery across the entire value chain: partnering with architects, contractors, and engineers • Increase utilization of Global Excellence Centers	• Corporate Financing risk • Client & Opportunity risk • Financial Reporting risk • Liquidity & Working Capital Management risk • Project & Contract Execution risk • Third Party Management risk • Information Technology risk • Information Security risk

Connectivity matrix

		Material topics	Key Performance Indicators	Strategic targets 2018 - 2020 (see page 32)	Results 2019[1]	Results 2018	Page
People & Culture	17	**Employee engagement**	Number of employees (headcount as at 31 December) ✓	–	27,875	27,354	47
			Employee Net Promoter Score[2] (on a scale of -100 to 100) ✓	Staff engagement score improving annually	19	3.10	49
	18	**Talent management & learning and development**	Voluntary turnover rate (as % of total staff) ✓	Voluntary staff turnover < market	13.5%	15.6%	50
			Identified leadership potential rate (retention %)	–	–[3]	69%	47
	21	**Diversity and inclusion**	Females in total workforce (as % of total staff) ✓	–	38%	37%	51
	22	**Health and safety**	Total Recordable Case Frequency (TRCF, per 200,000 work hours) ✓	–	0.16	0.18	52
			Lost Time Case Frequency (LTCF, per 200,000 work hours)	–	0.09	0.06	52
	34	**Business ethics**	Employees passing Code of Conduct training (in %)	–	97%	98%	54
			Number of AGBP alleged breaches (including near misses)	–	77	77	54
			Investigated AGBP alleged breaches	–	100%	100%	54
	35	**Tax policies and compliance (paying fair taxes)**	Group Effective Tax Rate over past five years	–	25.6%	25.9%	54
	36	**Privacy (and personal data protection)**	Number of appointed privacy officers under the Privacy Policies	–	12	12	55
	37	**Risk management framework**	Number of internal audits conducted in the year	–	25	24	55
	15	**Brand awareness**	Brand awareness score (from 2019 onwards)	Top-five brand awareness in markets we serve (share of voice)	12%	n/a	55
	16	**Client experience (CX)**	Client experience score	Top-quartile performance for client experience	37	45	56
Innovation & Growth	6	**Organic revenue growth**	Organic revenue growth (net revenues, in %) ✓	Surpass GDP growth in our markets	3%	3%	65
			Book-to-bill ratio (net revenues)	–	1.00	0.97	63
			Organic revenue growth Global Key Clients (net revenues, in %) ✓	Organic revenue growth for Global Key Clients two times overall growth	5%	10%	66
			Organic revenue growth Global Cities (net revenues, in %)	–	12%	11%	66
	14	**Innovation and digitalization**	% of revenues using BIM level 2	Digital adoption by our people and clients	42%	34%	68
			Arcadis Way implementation progress (as % of net revenues) ✓	–	63%	33%	69
	26	**Energy and emissions – carbon footprint**	Arcadis' carbon footprint (MT CO_2 per FTE)	–	2.55	2.98	76
	32	**Environmental non-compliance**	Number of identified environmental non-compliances	–	1	none	77
	33	**Climate change**	% of revenues that relate to relevant SDGs	Significantly contribute to UN Sustainable Development Goals	79%	80%	40
Focus & Performance	1	**Direct economic value generated**	Gross revenues (in € millions) ✓	–	3,473	3,256	87
	2	**Direct economic value distributed**	Net Income from Operations, per share (EPS, in €) ✓	–	1.42	1.01	91
			Dividend per share (in €) ✓	30 - 40% of Net Income from Operations	0.56	0.47	89
	5	**Profit & loss performance**	Operating EBITA margin (as % of net revenues) ✓	Operating EBITA margin trending to 8.5% - 9.5% of net revenues by 2020	8.1%	7.3%	89
			Net Income from Operations (in € millions)	–	125	88	91
	8	**Balance sheet performance**	Net Working Capital (as % of gross revenues) ✓	Net Working Capital < 17% of gross revenues	16.6%	15.1%	91
			Days Sales Outstanding (DSO) ✓	DSO < 85 days	88	80	91
			Return on Invested Capital (ROIC, in %) ✓	Return on Invested Capital (ROIC) > 10%	6.1%	4.7%	92
			Net debt to EBITDA ratio (average) ✓	Net debt to EBITDA ratio between approximately 1.0 and 2.0	1.4	2.0	92
	9	**Cash flow performance**	Free Cash Flow (in € millions) ✓	–	97	149	92

1 Based on IAS 17 figures for comparison purposes. For the IFRS 16 figures see 272

2 In prior years a scale of 0 - 4 was used; for the definition and method of measure for the indicator in 2019 see page 277

3 See page 47

For definitions and methods of measure for these indicators please refer to page 277. The indicators that fall within the scope of limited assurance of our external auditor are marked with the ✓ symbol. See page 269 for the Assurance report of the independent auditor, which includes details on the scoping and outcomes.

Performance & developments
People & Culture

Create an environment in which all our people can be at their best with the goal to attract, develop, and retain the workforce of the future.

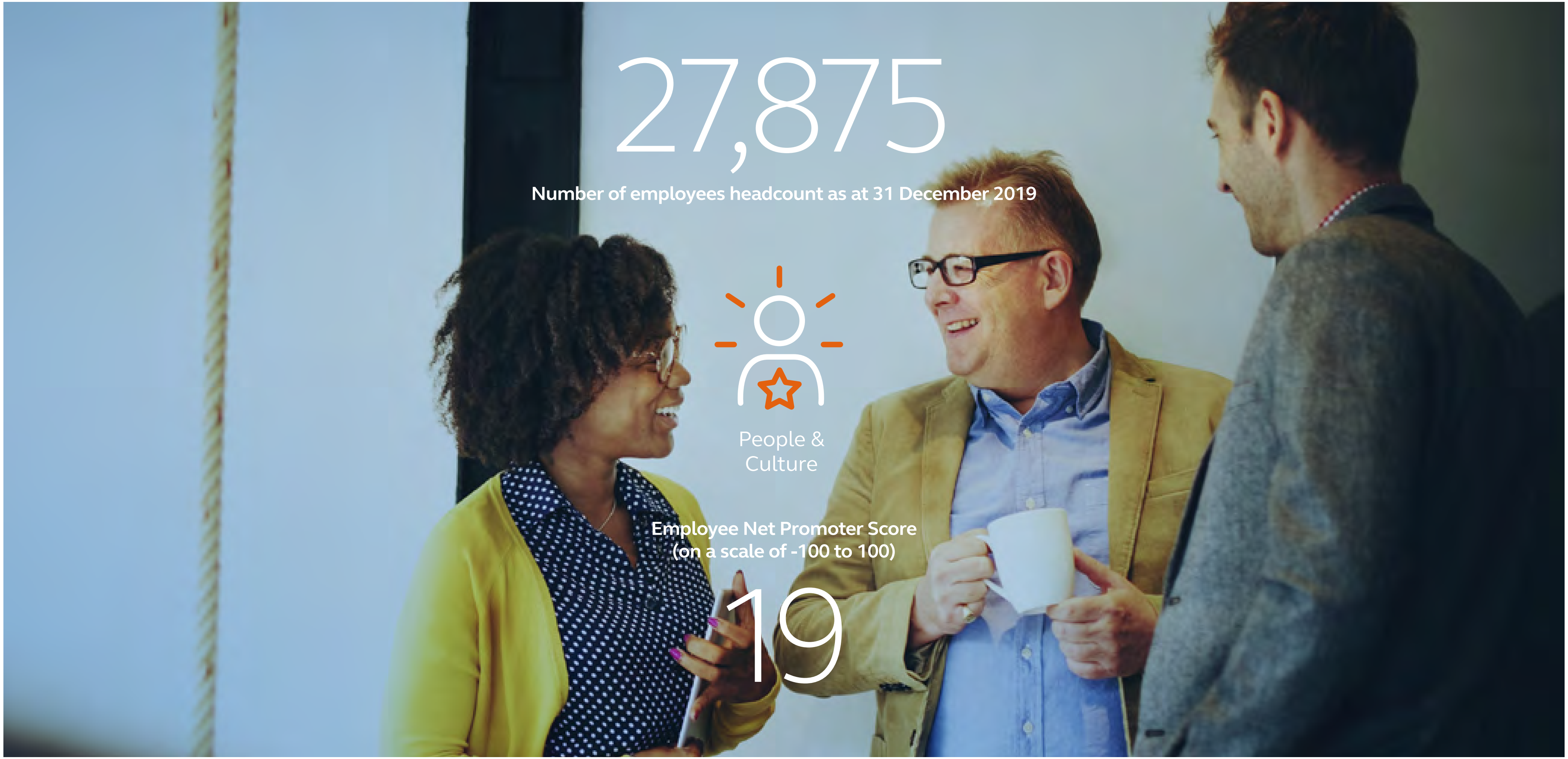
At Arcadis, we take an integrated approach towards developing engaged and competent people and continue to work with our partners and clients to increase the understanding of our social impact. With the launch of our strategy, and our People First approach, we are reinforcing our commitment to our people. Our strategic pillar 'People & Culture' provides the right focus.

For definitions and methods of measure for the indicators included on this spread, please refer to page 277. The indicators that fall within the scope of limited assurance of our external auditor are marked with the ✓ symbol. See page 269 for the Assurance report of the independent auditor, which includes details on scoping and outcomes.

↑ Improvement ↓ Deterioration ↔ Unchanged

1 Based on a sample of employees, see page 49
2 In prior years a scale of 0 - 4 was used; for the definition and method of measure for the indicator in 2019 see page 277
3 Identified leadership potential rate was not measured this year, due to the focus on the line management experience
In 2020 our focus on leadership potential rate will be renewed with more robust talent management planning in place

Indicator	2019	2018
Number of employees headcount as at 31 December	27,875 ↑	27,354
Employee engagement[1] employee net promoter score (on a scale of -100 to 100)	19	3.10[2]
Voluntary turnover rate as % of total staff	13.5% ↑	15.6%
Identified leadership potential rate retention %	not measured in 2019[3]	69%
Females in total workforce as % of total staff	38% ↑	37%
Total Recordable Case Frequency (TRCF) per 200,000 work hours	0.16 ↑	0.18
Lost Time Case Frequency (LTCF) per 200,000 work hours	0.09 ↓	0.06
Employees passing Code of Conduct training of all employees in 2019	97% ↓	98%
Number of AGBP alleged breaches including near misses	77 ↔	77
Investigated AGBP alleged breaches	100% ↔	100%


27,875
Number of employees headcount as at 31 December 2019
People &
Culture
Employee Net Promoter Score
(on a scale of -100 to 100)
19

People & Culture

Our people are our most important asset. Our ambition is to be the employer of choice, which is an integral part of our Top 10 Priorities. To realize that, we have initiated three programs; the Growth Perform Succeed performance management framework, the Line Management Experience and the Your Voice employee engagement program.

While these three programs contribute to our ambition to become the best place to work, ultimately, these programs also echo our Arcadis values and behaviors that are an integral part of the continuous feedback culture we aim for.

Employee engagement

Connected material topic **17.**

Important to these stakeholders:
- Suppliers
- Civil Society

See our overview of material topics on page 39, and the connectivity matrix on pages 45 and 46.

Our employee engagement program (‘Your Voice’) is key to living our People First value as well as realizing our People and Culture theme of our strategy towards becoming an Employer of Choice.

With the employee engagement program (Your Voice) we actively apply a continuous listening model, measuring our progress towards becoming an Employer of Choice, with the ultimate engagement question is “How likely are you to recommend Arcadis as a place to work?”. We have started running the monthly pulse surveys in all countries as of Q4 2019 in Arcadis for targeted audiences.

Considering the impact of this program and the change it will bring about in the organization, we have decided to do a pilot first. The biggest changes are that we are moving from one lengthy questionnaire per year to shorter, monthly surveys. Line managers, who have five or more direct reports responding to the survey, also have direct access to their team’s engagement dashboard. These changes require our people to be prepared for what is expected of them and a robust training program has been rolled out as part of the pilot. We want to ensure we have successfully implemented this for a subset of employees first.

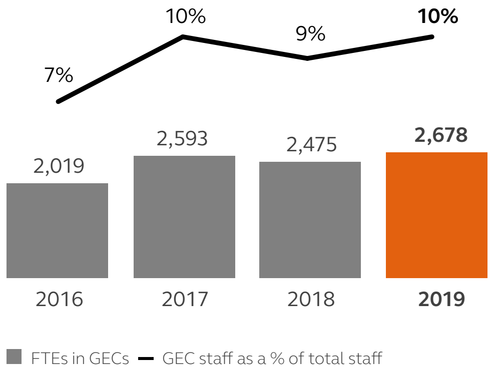
Countries were able to target specific audiences, so they could focus their change management and communications program on these people. In total, the pilot covers 35% of our employee base (excluding CallisonRTKL). This means that it is possible that the score will change once we move to a full implementation in Q2 2020.

The employee net promoter score (eNPS) is 19. A ‘positive’ score is anything above 0 (given the range of -100 to +100), and generally, positive eNPS scores are considered good as there are more active promoters of the brand than active detractors.

Grow Perform Succeed

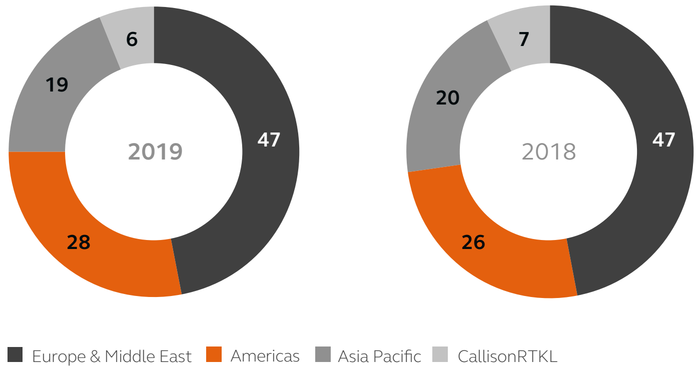
In 2019, the implementation of the global performance management framework, Grow Perform Succeed (GPS), continued worldwide. GPS focuses on continuous and meaningful performance conversations between line manager and direct report. To create the right environment for our people to grow, perform and succeed, the main focus for 2019 was on creating a culture of asking for feedback.

Employees in Global Excellence Centers



Employee spread by segment

In %



To bring that to life, and to accelerate and deepen the knowledge about GPS at scale, the GPS learning experience was launched in April 2019. The GPS learning experience is available to all Arcadians. This is an interactive and online learning solution focused on educating colleagues about GPS, the culture that we want to instill in the organization and how it benefits our people. To date 2,597 people have participated in the online GPS experience.

Line Management Experience

Our managers are pivotal in realizing our ambition to become an Employer of Choice in the market and the best place to work for our people. The Line Management Experience is a program that is based on the premise that our managers are key to the transformation of our business and are key to the engagement of those they manage.

In 2019, we have started designing the Line Management Experience.

The Line Management Experience will provide our managers with the tools, information, support and development needed to be successful in their role from a technical and people skill perspective. This online program is delivered globally and therefore it is consistent, scalable and accessible to all managers around the world.

This innovative program is developed based on two unique features:

First of all, it is being co-created with managers to guarantee a user-centric design. Over 400 managers from around the globe, representing 9% of all line managers, are actively involved in designing the program to ensure it meets their needs. Secondly, our managers are continuously experimenting with the different modules, tools and information to further increase impact and relevance to the manager population whilst developing their own skills.

The soft launch of the program took place in the third quarter of 2019. In the first three weeks the site attracted over 3,000 visitors and the virtual line management experience labs saw 449 managers joining.

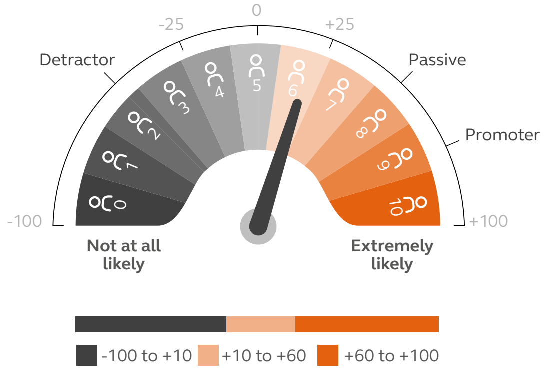
This is the start of a longer-term journey. We will continue to work with line managers and further expand on the line management experience curriculum in 2020.

Talent attraction, development and retention

We strongly believe that fostering an open and inclusive culture will contribute significantly to our people's sense of wellbeing and job fulfilment and that will ultimately contribute to people recognizing Arcadis as a great place to work.

Talented, engaged employee contribute to innovation and organic growth. In 2019, our overall employee turnover was 19% (21% in 1018), while the voluntary turnover was 13.5% (15.6% in 2018). As part of our talent development and succession planning pipeline, 47% advanced their career through internal promotion.

Employee Net Promoter Score (eNPS)



% Promoters – % Detractors = Net Promoter Score

Diversity and Inclusion

Arcadis employs almost 28,000 talented Arcadians all over the world who are passionate about improving quality of life. Reaching our goals and ambitions, and delivering sustainable outcomes for our clients can only be done when everybody can bring their true selves to work. To achieve this, we focus on creating a diverse and inclusive working environment.

To Arcadis, a diverse and inclusive workplace means creating an organization where people feel included, respected and engaged. We want to attract talent from across all demographics and make sure our workforce reflects the societies and markets in which we do business. We believe it is important that our management teams reflect the diversity of our overall workforce as well, because diverse and inclusive teams are better able to understand our customers and innovate to meet their current and future needs.

Our global Diversity and Inclusion policy, published in January 2019 focuses on:

- Fostering an inclusive culture
- Strengthening our leadership diversity

For all regions, as well as globally, it is our aim to have the same percentage of women in leadership positions as we have women in the overall organization (38%).

People development

The Arcadis Academy is our global hub for learning and development and gives employees access to Program Management, Project Management, Leadership Development, Digital and Client Focus programs. Our programs are recognized internally for bringing value. Expedition DNA, our digital transformation program scored 4.72 out of 5.

Global Shapers, our early career professionals program, scored 4.8 out of 5. We also got external recognition; we won the best culture of learning LinkedIn award in 2019 for the 100% BIM certification. Overall investment in people development was €3.9 million in 2019.

Overview of Academy Programs & Appreciation

Program Management	• 100 people in e-learning program “Managing Successful Programs” • 104 participants in regional sessions • 24 attended global Program Management Leadership training (Overall score of 4.7 on 5 point scale) • 169 people invited to attend two virtual learning sessions led by Oxford University/Said Business School • 160 people registered for online learning on Managing Successful Programs
Leadership Development	• Global Shapers, 100 participants – see page 59
Digital	• 1000 LinkedIn learning licenses for BIM community • Expedition DNA – 3 sessions; 199 participants – see page 61 • Code Orange – 1 session; 60 participants
Client Focus	• 21 participants of Account Leaders Program, leading to external accreditation by SAMA (Strategic Account Management Association)

Sustainability – Key performance indicators – employees	2019	2018	2017	2016
People data				
Employees at year-end	27,875	27,354	27,327	27,080
Employee engagement				
Employee engagement (employee net promoter score)[1]	19	3.10	3.03	–[2]
Diversity and inclusion				
% of females in total workforce	38%	37%	37%	36%
% of female executives	18%	19%	15%	11%
Talent management				
% internal promotion into executive level	47%	50%	69%	59%
% voluntary turnover rate	13.5%	15.6%	14.6%	15.0%

1 Moved to employee net promoter score (-100 to +100) as new methodology to measure engagement in 2019 versus Likert methodology in previous years (a scale from 0-4). The employee net promoter score is based on the number of promoters (employees scoring the engagement questions in the organization minus the number of detractors (employees scoring the engagement questions between zero and six)

2 No engagement survey conducted in 2016

Health and Safety

The health, safety, and well-being of employees and stakeholders is central to everything we do at Arcadis. The Health and Safety (H&S) Global Vision and Policy focuses on a culture that strives for zero incidents using the TRACK process (for an explanation on TRACK, see the grey box in this section with our six fundamental Health & Safety principles.

Governance

The Health & Safety Program is the responsibility of a Global team, led by the Global H&S director, who directly reports to Rob Mooren, the Executive Leadership Team member accountable for H&S.

The Executive Board, Senior Leadership, and all Arcadis staff understand, believe in, demonstrate, and communicate the H&S commitments and engage in continuous improvement under the auspices of the global H&S Management System standard, which is designed to standardize H&S processes across the Company. It focuses on proactive hazard recognition, risk assessment, and risk control to prevent accidents, and allows for the nuances of local culture, client expectations, and regulations. It includes comprehensive education and training (through internal and external seminars, amongst others) to provide employees with the knowledge and tools to enable them to eliminate injuries and illness at work and at home. Best practices and lessons learned from incidents relating to the workplace and travel are shared via documentation or information systems. In addition, by teaming up with an external travel safety, security, and health services company, employees have information available to them at all times regarding the preventive measures available to eliminate or minimize risk on our projects.

Effective management (e.g., assessment, mitigation, and prevention) of work-related H&S risks is ensured through:

- Prioritization and action plans with quantified targets for regional CEOs and leadership;
- Leadership and business unit managers on a regular basis, as well as between H&S leadership and regional executive management on at least a quarterly basis;
- Review of work-related incidents (see step six of the principles as described on the next page);
- Conducting internal inspections and consultations by H&S specialists;
- Independent external verification of health, safety, and well-being;
- H&S targets being embedded in performance appraisals;
- Safety culture through behavior-based observations and shared information;
- Celebrate successes through safety competition, recognition, and rewards.

The global H&S Management System identifies and tracks work-related risks through annual risk identification and assessment at business level (e.g. tracking incidents). Actual performance of each region is captured in a consolidation tool and reported on a monthly basis to Arcadis' headquarters. Data is measured using standard definitions and measurement techniques that typically match those of regulatory bodies that are relevant to Arcadis' operations and those of clients. Definitions are explained in the Global H&S Management System standard and the H&S performance monitoring and reporting guideline. H&S professionals review the data before submission, which is included in quarterly reporting to the Executive Board and Supervisory Board. This review includes comparisons to other operating companies, historical performance, and targets/objectives.

Performance 2019

For the eighth year in a row, Arcadis' Total Recordable Case Frequency (TRCF) for 2019 (0.16, an 11% decrease from 2018 when it was 0.18), is at the lowest level since Arcadis began collecting global H&S data in 2004, when it was 1.13. The Arcadis TRCF has decreased by 52% over the past five years.

While the TRCF decreased, our Lost Time Case Frequency (LTCF) for 2019 (0.09) increased when compared to 2019 (0.06). Nonetheless, the Arcadis LTCF has decreased by 40% over the past five years. Arcadis' injury rates continue to remain far below the average injury rates of the publicly available US benchmarks for the architecture and engineering industry, which were 0.70 (TRCF) and 0.30 (LTCF) for the most recent reporting period (2018).

The six fundamental Health and Safety principles

1 Demonstrate Health & Safety stewardship daily
Make sure that you and every member of your team goes home safely every day, no matter what your role is in the Company.

2 Use TRACK Apply TRACK every day when planning tasks and before starting any task, and use TRACK again when conditions change. Our employees use the TRACK process to:

Think through the task
Recognize the hazards
Assess the risks
Control the risks
Keep health and safety first in all things

3 Exercise Stop Work Authority It is your responsibility to stop your own work, the work of other Arcadis staff, or work under Arcadis control, if you believe it to be unsafe.

4 Practice 'If Not Me, Then Who?' Be accountable for keeping yourself and others around you safe by acting immediately to prevent harm. If you see something unsafe (or not right), say something!

5 Undertake Health & Safety Planning Prepare and maintain a Health & Safety Plan for all work activities performed outside of an office environment.

6 Report Injuries and Incidents Immediately
Report all incidents, significant near misses, and unsafe acts and conditions immediately so that they can be investigated, corrected to prevent reoccurrence, and the lesson learned shared.

Near miss reporting, a key process in helping to prevent incidents, continues to increase (up 18% since 2018), which is indicative of a continued improvement in hazard recognition and greater stewardship for sharing experiences to help prevent future injuries.
No work-related fatalities occurred in the five-year period.

Global H&S objectives for 2019 were for all Arcadis leaders to complete at least one leadership H&S stewardship activity annually, and for 40% of all staff to perform a documented proactive health and safety action. These objectives were identified to drive health and safety engagement by leadership and staff to encourage further development of our proactive health and safety culture. Engagement by both leadership and staff was strong. 94% of leaders performed a leadership H&S Stewardship activity and 60% of staff performed a documented proactive H&S action in 2019.

Objectives for 2020 and beyond

The global H&S objectives for 2020 are similar to 2019. We expect Arcadis leaders to complete at least one leadership H&S stewardship activity annually, and at least 50% of staff to perform a documented proactive health and safety action. Finally, a third objective is for all regions/countries to implement the 80% of the activities identified in their 2020 well-being program plans.

Business ethics

Today's complex business environment demands that we firmly embed integrity in our daily business practices. Integrity means that we always work to the highest professional and ethical standards and establish trust by being open, honest and responsible. Integrity is a fulfilment of our high standards of responsibility to the client, shareholders, business partners and employees, the public, and to governments and the laws and culture of the countries in which we operate.

The Arcadis General Business Principles (AGBP) further define our interpretation of business ethics. The AGBP set guidance for our business decisions and actions throughout the world at all levels and apply equally to company actions and to individual behavior of all our employees in conducting Arcadis' business.

Governance

The Corporate Compliance Committee is composed of General Counsel & Company Secretary, Chief People Officer (member of the Executive Leadership Team) as well as the Chief Compliance Officer. At Regional level the Compliance function is composed of a Compliance Officer and a Compliance Committee. Each Compliance Committee includes the Compliance Officer as well as Legal and Human Resource/People expertise.

Anti-Corruption

Specific Anti-Corruption Standards (SACS) provide specific guidelines related to gifts, hospitality and payments to third parties. Arcadis has embedded its commitment to the UN Global Compact principle on anti-corruption by referencing the SACS into the Arcadis General Business Principles (AGBP). Targeted anti-corruption training sessions by leadership members and by Compliance Officers were held in various regions throughout the year.

Dealing with dilemmas

The AGBP cannot anticipate the array of dilemmas we may face in our day-to-day operations. An active policy in this area means recognizing dilemmas and taking responsibility for resolving them. We encourage employees to discuss business dilemmas with each other and with their management, to make integrity an integral part of our culture.

Value for customers

We are a reliable partner for our clients and aim to deliver our services without jeopardizing stakeholder interests. We offer services under terms that do not compromise our independent professional judgment and aim to create optimal value for clients. We are transparent with clients about conflicts of interest that could emerge during the execution of our services.

Responsible employment practices

Our people are key to our success and we respect human and labor rights so that our people may work in a safe, healthy, professional and supportive environment. We encourage engagement and support personal development through comprehensive policies and initiatives.

Every Arcadis employee has an equal opportunity for personal recognition, advancement, career development and compensation, regardless of background or beliefs. The same policy applies to recruitment. No form of discrimination or harassment is tolerated.

Monitoring and accountability

We require all our people to sign off on and comply with the AGBP. In addition, every other year Arcadis employees complete online training aimed at increasing awareness of our AGBP and values. This training specifically addresses issues like corruption, collusion, bribery and other risks to which our employees may be exposed. It was most recently rolled out in October 2018. In 2019, a total of 97% of all employees passed the AGBP training or the Anti-Corruption Training Module. The next round of integrity training for all our employees will be organized in 2020.

Arcadis monitors compliance with the AGBP in all operating companies on a quarterly basis. Management of operating companies certifies compliance through an annual Document of Representation. Arcadis will not hold employees accountable for any loss of business resulting from compliance with the AGBP.

Integrity Line

Arcadis has a reporting procedure which includes an anonymous global Integrity Phone Line managed by a third party for the event people are uncomfortable reporting in the line or to Compliance. Reporting tools are available to our employees 24 hours/7 days a week. Reports of potential or suspected misconduct can be made in native languages.

In 2019, a number of 77 alleged breaches or near misses of the Arcadis General Business Principles was reported to the Arcadis Corporate Compliance Committee, all of which were investigated or advised upon (2018: 77).

24 referrals from before 2019 were also still under investigation during the year. Inappropriate behavior (employment-related) was the category with most reported issues. Violation of the AGBP may lead to sanctions, up to and including discharge. Company-wide we had seven dismissals on grounds related to breaches of the General Business Principles.

Tax policies and compliance (paying fair taxes)

Tax policies and compliance (paying fair taxes) was identified as a material topic as per the Stakeholder Dialogue (see page 39). In this regard, Arcadis' tax policy and tax principles as set by the Executive Board are based upon and informed by the same core values embedded in the Arcadis General Business Principles (AGBP) and our codes of conduct. Together with Deloitte, Arcadis has in 2019 performed an innovative crowdsourcing exercise among international students to determine how responsibility to society in the domain of taxation is perceived. From this exercise important elements such as 'profit shifting', the use of tax havens and/or foreign subsidiaries for purposes of tax avoidance were discussed.

These elements are aligned with Arcadis' tax strategy and its tax principles and therefore underline its responsibility to society in the domain of taxation. Arcadis does not seek to avoid tax using secrecy jurisdictions, or so-called tax havens, without commercial substance nor via profit-shifting. Taxable profits are recognized in countries in which value is created, in accordance with domestic and international tax rules and standards (such as OECD Guidelines) and applying the arm's length principle. Furthermore, the Group's weighted average Effective Tax Rate (ETR) of 25.6% over the past five years, also confirms its responsibility to society in the domain of taxation.

Arcadis complies with its statutory obligations, pays its tax on time, and builds and maintains a good, honest, and open working relationships with tax authorities.

In this respect, Arcadis agreed on a horizontal monitoring covenant with the Dutch tax authorities. Arcadis aims to comply with the letter and spirit of the law and makes tax-related disclosures in accordance with the relevant domestic regulations, as well as applicable reporting requirements and standards (such as IFRS).

The Company has shown a steady performance in the annual Tax Transparency Benchmark of the Dutch Association of Investors for Sustainable Development, having been ranked in the 2nd quartile over the past three years (2019: rank 29-31 out of 77 companies).

Throughout the year, (potential) tax risks are identified, monitored, and acted upon, to mitigate and preemptively avoid said risks. The Company seeks to provide third party tax assurance by among others having its material corporate income tax returns reviewed by a big-4 tax firm. Material tax risk management topics are reported to the Audit and Risk Committee.

Information with respect to the reconciliation of the Effective Tax Rate to statutory tax rate can be found on page 201, in note 11 of the Consolidated financial statements.

Privacy (and personal data protection)

In 2019, Arcadis continued implementation of the Privacy Standards for employee data and for client, supplier and business partner data (also called Binding Corporate Rules) that were approved by the European Data Protection Authorities, and subsequently by the Executive Board in 2018. The Global Privacy Program also included the development of the Privacy Standard for Processor (also called Binding Corporate Rules). Both Standards also confirm the governance structure with regional privacy officers and a Chief Privacy Officer at global level.
We performed various training sessions and privacy assessments. In 2019 we renewed the Privacy Impact Assessment online tool for Arcadis' controller role and introduced the Privacy Impact Assessment online tool for Arcadis' processor role.

Risk management framework

Exposure to risk is inevitable in the pursuit of Arcadis' goals and therefore a risk management framework is designed specifically to manage risk exposures, considering our risk appetite in context of the strategy. The risk governance structure, risk profile and appetite, and the main risks for Arcadis are explained in detail in the Enterprise Risk Management section starting on page 147.

Brand awareness

Our brand strategy is one of differentiation and focus.

We seek to differentiate Arcadis from our competitors through our ability to improve quality of life, whilst delivering exceptional and sustainable outcomes for our clients in the natural and built environment.

We measure our brand performance across a wide range of criteria but have set specific KPIs around our ability to drive: firstly, our brand awareness in our chosen markets and selected audience groups; secondly, our brand position, versus our competitive set; and finally our ability to convert both awareness and strong position in the market to genuine business opportunities. A series of hard and soft metrics sits under each of these three pillars, which are measured both globally and within our regional businesses. At a global level we measured our 2019 brand performance against a selected set of global peers and scored 12% (share of voice).

Client experience (CX)

Our Client Experience program is focused on creating a better experience for our people and our clients, and ultimately our clients' customers. Putting the client and the end user at the heart of how we think, behave and interact with our clients can make our Arcadis vision tangible in the short-term and build a more resilient culture in the long-term.

It is a people-centric approach with focus on individual client contacts as people - not as the organization they represent, we try to understand and overcome client pain points, co-create solutions using design-thinking methodologies, to make our client's lives easier and enable solutions through digital technologies, and we partner with our clients to help them meet their customers' needs.

We also recognize that our client needs are changing in the digital era. Many clients are expecting us to communicate data and digital insights. In many sectors, we can see client relationships pivoting toward digital as a new norm. Speed of delivery, insights and cost savings continue to be of paramount importance. Digital tooling and platforms allow us and clients to optimize all of these aspects. New digital value propositions are also starting to make an impact, helping solve client pain points and deliver added value. Digital is quickly becoming a key aspect of the optimal client experience we aim for.

As part of this broader Client Experience program we have conducted two waves of surveys in 2019 with our Top 250 key clients in North America, Latin America, Europe, Middle East, United Kingdom and Australia. Overall Arcadis shows a solid performance with a Net Promoter Score (NPS) of 37, and a strong loyalty score with 64% of the client contacts truly loyal. Participants have rated Arcadis in the top percentile (80% or higher) for client commitment, working in partnership, quality of work and overall experience.

We make the survey information available to our broader sales community through a newly developed dashboard where scores can be benchmarked against peers, and detailed insights can be viewed as a basis for account leaders to take action to respond to client feedback. We have evaluated our client survey approach, and we have decided to refresh the setup following a Customer Journey Mapping exercise which we will conduct early 2020. Our aim is to make our CX approach truly global covering all the diverse cultures of our key clients, and to work towards an NPS score exceeding 50 in 2021.

Other topics

Labor rights and relations, and human rights

At Arcadis, we recognize the human rights of all people as outlined in Universal Declaration of Human Rights, the International Labor Organization's Declaration on Fundamental Principles and Rights at Work, the United Nations Global Compact and the United Nations Guiding Principles on Business and Human Rights. Arcadis' Human Rights and Labor Rights Policy addresses human rights risks and we strive to prevent infringement on human rights and remediate possible human rights resulting from our activities. We expect our business partners to apply equivalent principles and seek to actively support them where needed.

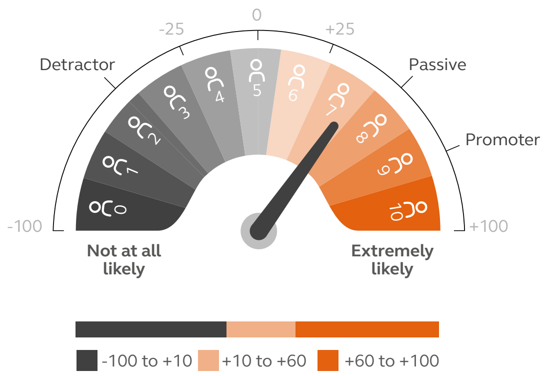
Arcadis respects the role of works councils and collective bargaining and works with these groups in the countries and regions in which they are present. Arcadis believes respecting human rights is fundamental to a sustainable society.

www.arcadis.com

Through its Human Rights and Labor Rights Policy, Arcadis commits to the following:

- Arcadis considers respect for human rights and adherence to labor rights as integral to responsible business behavior. The Company is also committed to identify, prevent, or mitigate adverse human rights impacts resulting from or caused by business activities before or if they occur through human rights due diligence and mitigation processes.
- Arcadis prohibits all forms of forced labor, human trafficking and the employment of individuals under the applicable statutory minimum age for workers.
- At Arcadis, the health, safety, and well-being of our employees and stakeholders are central to everything we do.

Client net promoter score



% Promoters – % Detractors = Net Promoter Score

- Arcadis has a Diversity and Inclusion (D&I) program, dedicated to fostering workplaces that are free from discrimination or harassment based on race, sex, national or social origin, religion, age, disability, sexual orientation, political opinion, or any other status protected by applicable law.
- Arcadis does not tolerate disrespectful or inappropriate behavior, unfair treatment, or unfair retaliation of any kind. Harassment is unacceptable.
- Arcadis compensates employees competitively relative to its industry and the local labor market. The Company's principle is to provide a living wage.
- Arcadis attempts to prevent compulsory redundancies. In cases where these are unavoidable, the company promotes responsible redundancy procedures.
- Arcadis promotes a good work-life balance for its employees and applies workplace and worktime flexibility strategies to accommodate.
- Arcadis respects its employees' right to join, form or not to join a labor union, seek representation, bargain or not bargain collectively in accordance with local laws and without fear of reprisal, intimidation, or harassment. Where employees are represented by legally recognized unions, we aim to have constructive dialogues with their chosen representatives and bargain in good faith with such representatives.

Arcadis is conscious of the impact it has on the communities in which it operates through the projects it performs on behalf of clients. We are committed to engaging in dialogue with stakeholders on human rights or labor rights issues related to our business where appropriate, taking the view that local issues are most appropriately addressed at local level. Please refer to the section on Enterprise Risk Management, starting on page 147, for details on risk mitigation on respect of this topic.

No material human rights or labor rights issues were raised in relation to Arcadis activities in 2019. The company in the fourth quarter engaged in a dialogue with Amnesty International on its activities in Saudi Arabia.

For key performance indicators, please refer to the Connectivity matrix on page 46.

Responsible procurement

Arcadis procurement approach is based on regional support and guidance with a focus on risks presented from our Global Purchasing Principles and Global Partnering Policy and mitigating those risks regionally. Our Global Purchasing Principles and Global Partnering Policy addresses sustainability, equality, diversity & inclusion, safety, health, environment and quality.

Community engagement

Arcadis and its people dedicate time, expertise and money to many local community engagement initiatives. In our social programs, we perform volunteer-based activities and projects in the following program lines:

Create today is about Arcadians providing hands on assistance, through a range of one-day activities such as volunteering at food banks, performing riverside clean ups and organizing charity events to raise money or collect goods for those in need.

Create tomorrow is about helping local communities by sharing our knowledge and experience to improve their quality of life. Our support consists of process consulting, technical advice, financial know-how and access to our extensive network.

Create the future is all about nurturing future talent. We bring together present-day experts and the talents of the future to promote the positive impact our profession can have on the world.

Local Sparks program

In 2019 Arcadis updated its sustainability strategy, and as a component of that new strategy, it has voiced a commitment to ensure that all its employees are active in some form of community engagement by 2030. In keeping with this ambition and in cooperation with two of its larger shareholders the Lovinklaan Foundation and the KNHM Foundation, Arcadis has launched the Local Sparks program. Arcadis' initial commitment to Local Sparks stands for three years after which the program will be evaluated.

This community engagement program has three components:
The **Local Sparks Platform** is a web-based staging ground aimed at building a global social impact movement. It will showcase 200+ of Arcadis' existing community engagement projects. In addition, new projects will be continuously added so that Arcadians can connect, get inspired and share knowledge around how to best initiate, organize, or execute these types of activities.

The **Local Sparks Challenge** is a competition in which smaller community engagement projects get financial and communications support to build awareness and stimulate participation. Annually, 20 projects from throughout Arcadis are chosen to take part in the Challenge. Selected projects set a goal for the year, and upon completion, receive a monetary award they can apply to the project or spend with their team. In 2019, 48 projects applied for Challenge funding.

The **Local Sparks Accelerator** is focused on larger, longer-term and possibly scalable community engagement programs. Initiatives that qualify for the Accelerator will receive maximum funding of €20,000 per year for two years, allowing initiatives to build momentum. The teams organizing these initiatives will also receive guidance to up-scale and broaden their impact.

Create today

Feeding Hong Kong - The Bread Run
Feeding Hong Kong brings food from where it is plentiful to where it is needed. Arcadis volunteers collect surplus bread from bakeries and help sort, repack and distribute it to charities throughout the city.

I wear pink for… (Breast Cancer Awareness Month)
Dubai, United Arab Emirates Arcadians partnered with Pink Ribbon Crafters to help uninsured breast cancer fighters with their treatment through an awareness event and the sale of handmade items.

Create tomorrow

Social and Environmental innovative solutions to local smallholders
Arcadians from Belo Horizonte, Brazil deliver innovative solutions to provide a nearby rural settlement access to clean water for their own consumption and crop irrigation, empowering the community.

Rainforest Preservation with Sustainable Woodcraft Fabrication
Mexico City CallisonRTKL employees reduce the indiscriminate illegal tree cut in Chalmita, Mexico by teaching the local community carpentry so another more efficient and sustainable economy can grow.

Create the future

FIRST LEGO League Robotics Challenge
Arcadis engineers from the Long Island City, New York office act as judges and provide professional engineering feedback and support for in-need student teams solving engineering challenges.

Hope for Nayon ng Kabataan
Manila, Philippines Arcadians help abused, orphaned and exploited children by donating necessities and teaching them, not just in their studies, but also to transform their outlook and give them hope.

Reporting standards

The EU-directive on non-financial information (2014/95/eu) was implemented in national law in 2017. Arcadis complies with this EU-directive by disclosing our business model, and disclosing information relating to environmental, social and employee-related matters, respect for human rights, anti-corruption and bribery matters. This information includes a description of the policies, outcomes and risks related to these matters, and can be found throughout the Executive Board report. We have followed the Global Reporting Initiative's (GRI) Sustainability Reporting Guidelines while compiling the sustainability performance included in this Annual Integrated Report. The GRI framework is the most widely used standardized sustainability reporting framework in the world.

Global Shapers: Generation 2019

"Every young Arcadian aspires to be recognized as a Global Shaper, and I was privileged. The face to face programme truly lives up to its promise: Once in a lifetime experience. We just didn't shape the future mobility, rather also shaped a future self. For me and many more, it was a platform for brainstorming, equal partaking, self-analysis, challenging one's weaknesses while bringing out our strengths and lastly, of making profound connections and emotional attachments. The highly competent leader's team gave us a bunch of fresh perspectives while we put our heads together to solve the challenges of future mobility. Global Shapers will always remain a memorable chapter of my life while continuing to create the ripple ."
– Hema Syal, Associate Consultant- Strategic Environment Consulting, Arcadis India

"Empowerment, confidence, a digital skill-set, a global network and lifelong connections; these are a few things the Global Shapers 2019 experience has provided to not just myself, but 99 other young professional Arcadians from all over the world. It was magical to be immersed in exciting projects; collaborating in such a diverse and talented environment - learning to understand and appreciate differences in cultures, occupations and experiences over the entire program and creating excellence. I am grateful for the new energy and bonds I have moving forward. Being a Global Shaper is one of the proudest moments of my career and I look forward to spreading the ripple effect to future generations."
– Stuart Bowling, Mechanical Engineer, Sydney, Australia

Global Shapers is our annual program that offers 100 early career professionals from around the world the opportunity to collaborate on business-driven projects, share knowledge and grow their network internationally.

Global Shapers is funded by the Lovinklaan Foundation – Arcadis' largest shareholder, and focuses on learning through working together in an international group both virtually and face-to-face. This year's face-to-face program took place in the United Kingdom.

In 2019, the Global Shapers program focused on a mega trend in the world: mobility. Under the theme #FutureMobility, the Global Shapers worked on mobility solutions for 16 cities around the world in the virtual phase of the program, four of which were chosen to be developed further in the face-to-face program. The deliverables have been diverse; focusing on the core infrastructure of a city, transportation hubs, Mobility as a Service (MaaS) solutions and First and Last Mile solutions.

All deliverables were presented successfully to the Executive Leadership Team, global functional leaders and UK leadership team during the grand finale of the face-to-face program.

As part of their development journey, Global Shapers work on creating a so-called ripple effect.
One aspect of the ripple effect is to set up a community of city enthusiasts that work on city-centric challenges. These communities are being set up across the globe and are called City Shapers.

43% of our employee base is younger than 30 and they are the leaders of the future. Since its launch in 2012, Global Shapers has become a powerful network of more than 1,900 early career professionals. Together they act as change agents and create a ripple effect throughout the organization, sharing their knowledge, network and achievements back in their home offices.

www.arcadisglobalshapers.com

City Shapers: stretching our thinking about urban sustainability

As part of the ripple effect of the Global Shapers program, early career professionals were asked to explore opportunities to set up a City Shapers chapter in their home office. City Shapers is a program within our urban centers, focused on solving complex urban challenges, establish early career networks and create mentoring/career development relations.

Inspired by the Global Shapers program, City Shapers started out in New York City. Since 2018, we have been incubating the City Shapers program in different parts of the world. After the face-to-face program in Birmingham, Global Shapers have begun identifying opportunities in their respective hometowns.

In their team sessions, City Shapers around the world have already developed innovative proposals for different cities. The team in Melbourne has developed a proposal to create a vertical forest, a Multi- storey residential building that integrates trees, shrubs and other plants into the structural design, in line with the guidelines for Going Green, issued by the City.

In Asia, City Shapers got involved with the Carrying our Weight campaign to end plastic waste in urban environments. In Brussels, the team participated in a contest to clean out microplastics in a nature reserve in the Port of Antwerp. City Shapers London designed a proposal to regenerate a borough in Dalston around a transport hub.

There are many more innovative ideas that the different City Shaper chapters are working on and it has become an additional opportunity for early career professionals – next to Global Shapers – to grow their network, develop their career, establish mentoring relationships, and live out our passion to improve quality of life.

Arcadis is going through a Digital transformation. People engagement and change management is viewed by Arcadis as the single most important element of guaranteeing the success of our digital transformation. Therefore in 2018, we commenced a collaboration with the Lovinklaan Foundation to accelerate the digital transformation of the Arcadis business in line with the Lovinklaan mission to shape the future of the business, ensure the continuity of the enterprise, enable our people to grow and reach their full potential. The result was the development of the Expedition DNA program comprising of two key elements: a bespoke online awareness program called Base Camp and a digital transformation program which are Expeditions.

The success of the program exceeded our expectations. Since the start of the program in Q3 2018, over 10,000 Arcadians have voluntarily participated in Basecamp with a completion rate of over 40%. Subsequently we have developed over 320 Arcadians in five Expeditions (the face to face program) to become Digital Ambassadors for Arcadis.

The impact on the business is highly valued. The program ensures that our people are using a common language and can confidently talk about digital amongst each other, and with clients, which is fundamental for ensuring we are able to deliver change in the business and win more digital work. It has built digital skill sets and capabilities across the organization which has enabled Arcadis to deliver on our evolving commitments to clients, and to succeed in achieving digital frontrunner status in our sector by 2021.

For the reasons outlined above, Arcadis has made the strategic decision to increase investment in our people transformation efforts in 2020, predominantly directing this investment into expanding the Expedition DNA program, bringing it closer to the business and increasing accessibility through scaling program elements developed in 2019, in order to realize even greater impact in regions.

In 2020, it is envisaged that Expedition DNA will evolve to further align with the Arcadis 2030 vision, the business strategy, people strategy and will incorporate further Global Solutions at its core. By drawing these elements together in Expedition DNA, we will be assuring the digital transformation, and our people, are saligned to deliver the future strategy of the business.

innogy Windpower Netherlands
The Netherlands

Being a good neighbor

Initiated by Arcadis and co-funded by innogy, Arcadis developed the Noise Forecast App for wind turbines.

Relevant SDGs:

Challenge

Wind energy is one of the renewable energy sources we need to reach the climate goals of the Paris Agreement. Nevertheless, residents near wind farms have concerns about the environmental impact of wind turbines. The day-to-day impact is unclear to them since this depends on variable weather conditions.

Solution

The Noise Forecast App which Arcadis developed focuses on factors which affect how wind turbine noise and shadow flicker are perceived by residents. The app offers residents a kind of hyperlocal weather forecast, but then focusing on the effects of noise and shadow flicker impact of wind turbines. Also, residents can provide real-time feedback on how they personally perceive the wind turbine noise.

Impact

Better insight into the actual impact by wind turbines and the occurrence and duration of high exposure levels, increases understanding and acceptance by residents, thus making the roll-out of onshore wind farms easier and taking away an impediment to the energy transition.

Awards

The app was awarded the Dutch Award for the Living Environment in 2019.

www.arcadis.com

Performance & developments
Innovation & Growth

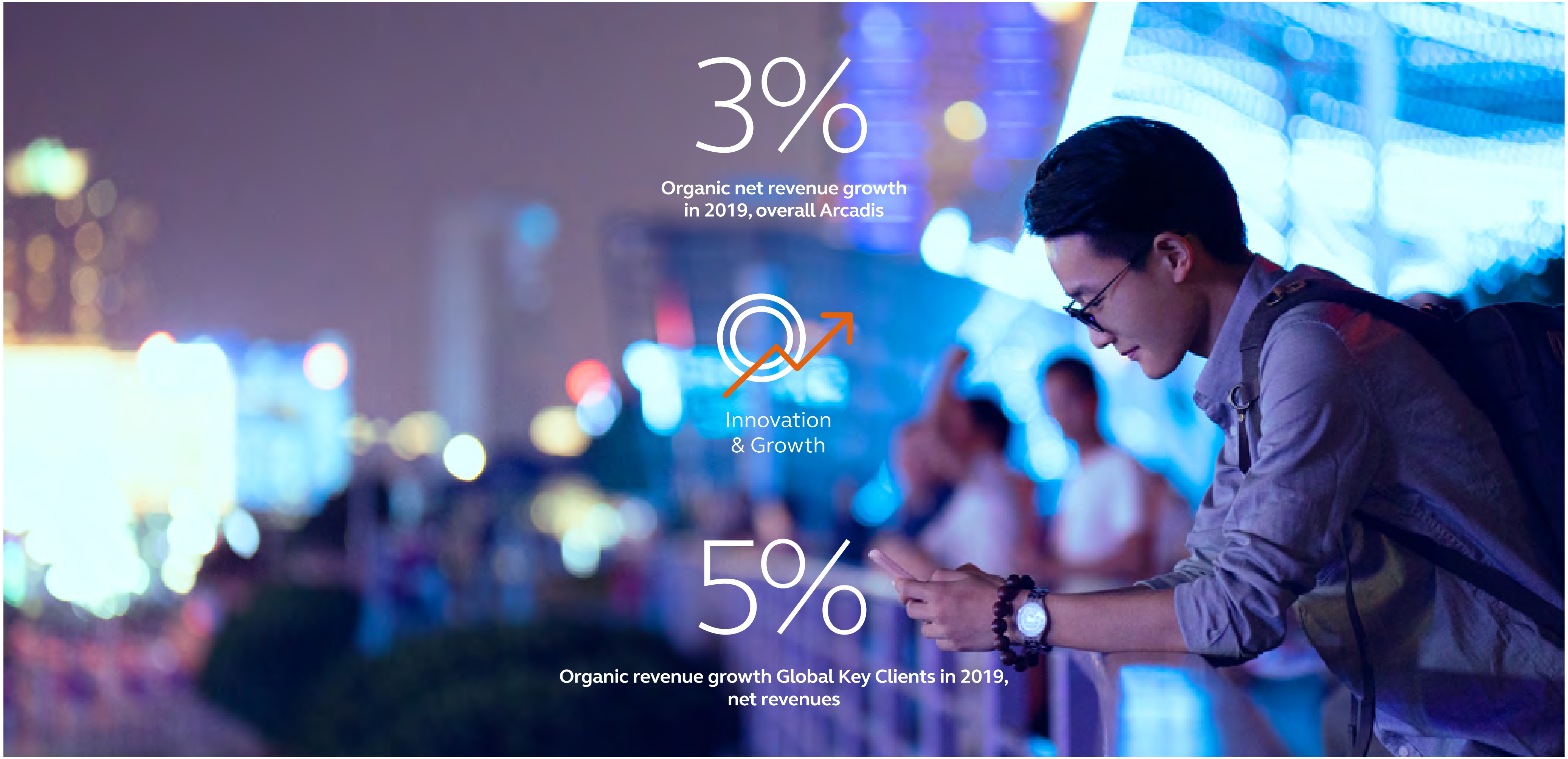
Grow through delivering integrated and sustainable solutions for our clients, and be a digital frontrunner.

At Arcadis, the focus on innovation and growth helps us create the best sustainable outcomes for our clients and society, while improving our financial performance. We scale existing technologies and explore new ones in co-creation with clients, and apply integrated thinking to solve complexity. We utilize our local market knowledge and leverage our global experience and increased digital intelligence for best-in-class solutions.

For definitions and methods of measure for the indicators included on this spread, please refer to page 277. The indicators that fall within the scope of limited assurance of our external auditor are marked with the ✓ symbol. See page 269 for the Assurance report of the independent auditor, which includes details on scoping and outcomes.

↑ Improvement ↓ Deterioration ↔ Unchanged

Indicator	2019	2018
Organic revenue growth net revenues	3% ↔	3%
Book-to-bill ratio net revenues	1.00 ↑	0.97
Organic revenue growth Global Key Clients net revenues	5% ↓	10%
Organic revenue growth Global Cities net revenues	12% ↑	11%
Organic revenue growth Top 250 Clients	9%	–
% of revenues using BIM level 2	42% ↑	34%
Arcadis Way implementation progress as % of net revenues	63% ↑	33%
Arcadis' carbon footprint MT CO_2 per FTE	2.55 ↑	2.98
Number of identified environmental non-compliances	1 ↓	none
Revenues that relate to relevant SDGs as % of revenues	79% ↓	80%


3%
Organic net revenue growth in 2019, overall Arcadis
Innovation & Growth
5%
Organic revenue growth Global Key Clients in 2019, net revenues

Innovation & Growth

While our primary focus is organic growth, we also look for opportunities to further expand our digital and data expertise, as evidenced by the acquisition of enterprise asset management company EAMS Group in 2019. The acquisition of award winning EAMS Group boosts Arcadis' digital expertise and offerings and underlines our progress in innovation and digital strategy. It follows the addition of software and data analytics firm SEAMS in 2018 and launch of the Digital Innovation Hub and the City of 2030 innovation accelerator in early 2019, as well as the establishment of Arcadis Gen (see page 70). All steps are in support of our ambition to become a digital frontrunner.

Organic revenue growth

Connected material topic

6.

Important to these stakeholders:
- Investors
- Management

See our overview of material topics on page 39, and the connectivity matrix on pages 45 and 46.

Net revenues totaled €2,577 million and increased organically by 3%, the currency impact was 3%. Revenues increased in all regions except for the Middle East due to higher selectivity and in CallisonRTKL.

Net revenue from our Top 250 Key Clients has grown organically with 9%. Backlog at the end of December 2019 was €2.0 billion (2018: €2.0 billion), representing ten months of net revenues and in line with last year. Excluding cancellations, which were mainly in Asia and CRTKL, the backlog growth was 5%.

Sales & Business Development

Helping our clients to be successful is front and center of our engagement with our markets. We strive to make a real difference to our client's bottom line, sustainability, and resilience, and we are doing this in a purposeful way.

Each year, a lot of time and effort go into understanding our clients' pain points and challenges, what they really need to succeed and how they expect to work with us. Our Sales and Business Development teams listen constantly and carefully to clients and focus on finding the best approach to adding value, whether through established best practices or digitally driven innovation.

By optimizing the client experience in working with Arcadis, we believe we are making a real positive impact on clients. We also carefully select those markets and clients where we can create the greatest value, to ensure our efforts deliver mutual success. For this purpose, Arcadis operates four major global programs.

In our **Global Sectors Program**, we focus on eight sectors: industrial manufacturing, technology, energy & resources, contractors, property & investment, government, transportation and water. Our team of sector leaders and account leaders focus on the client relationships and needs of selected leading global, regional, and local clients in each sector.

Our **Global Solutions Program** is centered around eight core service solutions and seven asset solutions. The program focuses on enhancing client outcomes through identifying and scaling excellence and driving collaboration across the business. Our global solution leaders are constantly on a mission to be thought leaders, providing global knowledge and capabilities, support and influence Arcadis pursuits, champion technical excellence and lead digital thinking globally with regions.

We believe every market sector and client is facing a dramatic change ahead, as a result of the rise of digital. For this reason, this year we have taken a deep dive into digital innovation within our Global Solutions, as part of Arcadis' large-scale digital transformation. Roadmaps have been developed and are now being implemented internally and with clients. As a result, digital processes and solutions are already driving demonstrable benefits to clients in support of their own transformation.

In 2019 we realized 5% organic growth in our **Global Key Clients program**, which caters to a group of 40 clients for whom we deliver services in locations around the world. We continue to support the global urbanization challenge through our **Global Cities Program** where we support a portfolio of 21 cities that aim to create livable cities by improving resilience, mobility, and urbanization. We help cities to become more intelligent, by applying data analytics to make better decisions and smarter cities. Our global cities community provides a platform where colleagues across regions can exchange insights about the most prominent urban issues, and initiate city-to-city collaboration.

In 2019 we successfully launched our Top 250 key client program, in which we delivered 9% organic growth. This program will continue in 2020 with a further refined focus on the **Top 200 Key Clients**. With these clients, we generate 50% of our revenues and 60% of our profits. Through the program we focus on 200 local, regional, and global key clients by prioritizing our resources to work on strategic pursuits and strategic projects for them: bringing the best of Arcadis together to meet the most complex challenges of the markets and clients we serve. Through other programs, we have focused on investing in upskilling our people, in account management skills, program management best practices and digital innovation to name a few. Our intention is to ensure client account leaders are well equipped to offer clients the most excellent service, industry best practices and best of digital innovation.

Developments in 2019 - Global Sectors

In 2019, we have adjusted our market sector approach towards eight cluster sectors, of which five are of global nature.

Industrial Manufacturing

In Industrial Manufacturing we focus on the A-selection of manufacturing sectors: Chemical, Life Sciences, Technology, Automotive and Aerospace. We see a strong pipeline of opportunities in the Industrial Manufacturing sector in CapEx program delivery, HSE compliance, M&A transaction consultancy, and environmental remediation. Our key clients increasingly prefer collaboration with a limited number of diversified delivery partners and offer us chances to diversify our portfolio.

In 2019 we won various strategic assignments with our manufacturing clients including sustainability consultancy, D4 dismantling contracts, and capital planning assignments. Specifically in the automotive sector we see increasing opportunities in innovative Electric Vehicle programs, including EV charging station networks, EV manufacturing facilities, and autonomous vehicle programs.

Technology

The technology sector is a high growth market with massive capital investment by the major technology players. We see a strong pipeline ahead for datacenter design & delivery, logistics facilities for online retail business and technology research campuses. The sector is characterized by specific requirements including speed of delivery, in-depth sector knowledge of key staff, and global seamless delivery.

In 2019 we have successfully grown our relationship with several global technology players, and we will continue to focus on delivering of a broad portfolio of solutions for a selected group of strategic clients globally.

Energy & Resources

The energy & resources sector is undergoing a critical change, and major players will have to make choices in order to stay alive and relevant in the foreseeable future. This change is driven by a delicate equation of increasing energy demand and an emergency-like challenge of climate change. Energy demand will continue to increase - with a focus on developing countries, fuel sources are required to be cleaner going forward, and geopolitical events increase volatility of supply and demand. While our classical portfolio of solutions -for example for oil & gas clients- has become subject to increased competition, we see opportunities in 2020 and beyond to help our energy & resources clients transition towards cleaner & renewable energy sources, and to help develop energy networks.

In 2019, we have strengthened and prolonged framework agreements with several of our oil & gas key clients, and we have been able to win multiple renewable energy projects including wind farms, solar parks, and transmission grid projects.

Contractors

As projects continue to grow in size, and are being brought to the market through alternative delivery models, the need for a thorough understanding of all key success factors has increased. We team up with leading contractors and differentiate solutions through state-of-the-art technology, digital solutions, iconic design, stakeholder management, asset management insights and operations experience.

Our strong relationships with leading global contractors and investors enable us to work across asset classes and geographies, and throughout 2019 we have continued our involvement in many major project opportunities with contractors across all of our regions. Our Global Excellence Centers contribute to our competitive advantage; they bring experience, innovation, and agility to local markets; delivering consistency, quality, and certainty around risk and financial impact.

Property & Investment

In 2019, we continue to dominate the real estate investor market in UK and Europe and we reinforced our position as market leader in bank assurance on investment expenditure. We have continued to build our portfolio of CapEx program delivery with large financial institutions, following the demand of the banking sector to increase control and to reduce risk. As interest rates fall, several clients have requested us technical reports to support re-finance activities.

Arcadis has embraced the opportunity to help deliver innovative digital solutions for our clients through the use of digital advances and new technologies. The use of artificial intelligence to improve efficiency and reduce reliance on scarce labor for document reviews and insight is in operation. We are using our unique global environment and risk management capability to advise our clients in areas like sustainability, environment, social governance and clean energy.

Developments in 2019 - Global Solutions

Our delivery organization is set up around **eight core service solutions**: business advisory, design & engineering, environmental restoration, strategic environmental consultancy, asset management, cost & commercial management, program management, information driven performance, and **seven asset solutions**: smart cities, new mobility, integrated airports, intelligent water, ports & waterways, resiliency & water management, rail & urban transport.

The Global Solutions team has a clear mission to identify and scale excellence and drive collaboration across the business through working with regions, client development and digital colleagues to enhance client outcomes. The Solution leaders are focused on : leveraging global best-practice at a regional level; being a thought leader, driving each solution forward, internally and externally; championing technical excellence and professionalization across each solution; collaborating across regions with other teams and solution leaders to bring the best of Arcadis to our clients.

The Global Solutions team takes responsibility for digitalization in ‘Horizon 1’ and plays a key role in our Digital Innovation and Transformation program.

Connecting the best of Arcadis across Canada, Netherlands, UK, and Australia has allowed us to win a light-rail project in Ontario, Canada as part of a consortium in which we will be responsible for Environmental Services and Track Design. In a similar way our intensive global cooperation in technical innovation around remediation of emerging contaminants has resulted in multiple large wins for PFAS remediation projects in several of our regions.

Developments in 2019 - Global Cities

Cities around the world -both developed and emerging- strive to become more competitive, sustainable and smarter and face similar challenges around mobility, resiliency and urbanization. Our Global Cities program focuses on 21 selected global cities and our City Executives help each of those cities around the globe to become 'livable', from an economic, social and sustainability perspective. In 2019 additional City Executives have been appointed for Melbourne and Brussels.

This program brings together a significant portion of our solutions with a large number of our selected key clients in a highly successful combination around the city agenda. Behind this unique success story is a world-class example of a high performance, collaborative team who has mastered the skill of thinking globally and acting locally.

Mobility - We help cities create integrated transport solutions and advanced transport alternatives to connect people within cities and enhance connectivity with public transport. We have won several contracts for public transport infrastructure projects in Paris, Sydney, Chicago, Los Angeles.

Resiliency – We work with cities to establish unique sustainable environments which respond to local climate and context, protecting communities from climate change, while enhancing a city's ecological and urban design. At the same time creating a critical infrastructure that has multiple community purposes and creates destinations and integrating resiliency with community design. In New York we have started working on a masterplan for the Lower Manhattan Shoreline Extension to defend the area against climate change.

Regeneration - We also help cities address the reuse of depleted assets to maximize a city's true potential, transform underperforming cities into high-value social and cultural engines for growth, and breathe new life into global cities. In London we have been appointed on the Oxford Street Public Realm Renewal project, a major multi-year project to regenerate London's main retail street.

Innovation and digitization

Connected material topic

14.

Important to these stakeholders:
- Clients
- Employees

See our overview of material topics on page 39, and the connectivity matrix on pages 45 and 46.

Industries are increasingly being impacted by digital technologies which enable new business models and as a result change these industries. Our industry is among the last to be impacted, and the context in which Arcadis operates will change. With investments in technologies in our sector having doubled over the last two years it is clear change is upon us.

In this context it is our ambition to be a digital frontrunner in our sector by 2021. To achieve this, we have setup a digital program with the objective to transform Arcadis at its core. This means our corporate strategy is digital and is based on the realities of a digital economy like CX, eco-systems, data and platforms.

To accelerate our digital transformation, we follow a dual transformation strategy. We strengthen the core by digitalizing and automating our current business with data analytics providing additional insights and value for our clients. At the same time we incubate the business of the future based on Digital products with new innovative business models. In 2019 we have accelerated both sides of the Dual Transformation.

Improving quality of life in cities

- Integrated transport solutions
- Protecting communities from climate change
- Transforming underperforming cities

The digitalization and automation of our existing core business has been ongoing for many years. However, 2019 saw a further acceleration as the ownership has been taken over by our Global Solutions leaders. Their client and business knowledge, extensive networks throughout the organization and clear strategic roadmaps for the respective solutions, allowed them to further accelerate the business towards BIM[1], automation and data analytics in a globally aligned way. Simultaneously, we started incubating the business models of the future. We do this internally with our Incubation Studio where we build and validate product-led new value propositions. Concurrently we have our external innovation program together with our partner, TechStars, were we accelerate start-ups to develop the new digital products of the future. We also announced in Q3 2019 that we are working on a new entity to bring new digital products to market: Arcadis Gen (see page 70 for more information).

We have seen a significant uptake of Digital in 2019. This is recognized by our clients and we measure that we increase both our profits and client satisfaction on those projects where we apply digital elements like data analytics and (5D) BIM. We believe that among others this is due our focus on our people. We expect that this will further accelerate in 2020 working towards securing our position as digital frontrunner in 2021.

The Arcadis Way

The Arcadis Way is our harmonized way of working, which provides us with a true competitive edge. The elements of the Arcadis Way link with each strategic pillar, for example with Innovation & Growth by enhancing client selectivity and pursuing profitable projects. For further explanation of the Arcadis Way see pages 82 and 83 in this section on Innovation & Growth.

In 2019, the Arcadis Way was implemented in North America, which is the first region supported by the full suite of Oracle Cloud applications. While now operational, the implementation encountered setbacks, affecting our ability to bill clients in a timely manner for work delivered. This in turn affected cash flow. With this issue now resolved, the arrears will be made up as quickly as possible.

The implementation of the Arcadis Way in Continental Europe, initially planned for July 2020, has been re-scheduled to January 2021. Rescheduling of the implementation of the Arcadis Way in Continental Europe enabled us to provide more focus on the post go-live support in North America, our largest region.

1 Building Information Modelling (BIM) is a collaborative way of working underpinned by digital technologies. BIM Level 2 maturity is a series of domain and collaborative federated models. The models, consisting of both 3D geometrical and non-graphical data, are prepared by different parties during the project life-cycle within the context of a common data environment. Using proprietary information exchanges between various systems, project participants will have the means necessary to provide defined and validated outputs via digital transactions in a structured and reusable form

Data driven products & solutions through Arcadis Gen

Arcadis established a new global digital business in January 2020 that will help secure its position as the leading provider of data-driven products and solutions across the natural and built environment. The launch of Arcadis Gen is Arcadis' latest move towards becoming a fully digitally enabled business.

The new digital business will set Arcadis apart from the competition by creating an environment for next generation thinking – where a culture of agility and innovation inspires development of world-class software and customer experiences.

Arcadis Gen will operate as a separate legal entity, and will be led by Chief Executive, Rachel White. With 200 employees based across the globe, it brings together recent acquisitions SEAMS and EAMS Group with software development specialists from the Arcadis business.

The new entity was created to further accelerate Arcadis' industry-leading digital transformation. While Arcadis continues to progress its innovation and digital strategy across its core operations, Arcadis Gen will be focused on rapid development of scalable digital propositions.

Arcadis Gen's current solutions are designed to improve performance and optimize decision-making for customers, helping them maximize the value of their data. The unique blend of its deep asset knowledge, combined with advanced analytics capabilities helps customers improve reliability, performance, efficiency and safety across their operations. Solutions include Enterprise Asset Management, Asset Investment Planning and Asset Performance Management - which can be used from the very earliest stages of strategic planning through to operational delivery.

ARCADIS gen

"**We're bringing together Arcadis' brightest digital minds in an environment for thinking differently,** to bring next generation insights to customers, explore bold new business models, and innovate digital solutions quickly and seamlessly."

Rachel White, CEO of Arcadis Gen

Projects

Digitally improving frequency and reliability of travel across London

Arcadis Gen has entered into a ten-year strategic partnership with Transport for London (TfL) to deliver Digital Asset Management services. The first phase of the contract is to upgrade their existing asset and safety management system, introducing it across all nine London Underground lines and London Tramlink.

Upon completion, for the first time in its 157-year history, London Underground will have a single system responsible for optimizing management of every single asset on the network.

The project will support the continuous improvement of Underground services across London and enable TfL to manage increasing passenger numbers to accommodate London's rapidly growing population; improve reliability and frequency of services; and reduce whole-life asset management costs supporting further capital investment in the network.

Delivering a single EAM solution for Amtrak

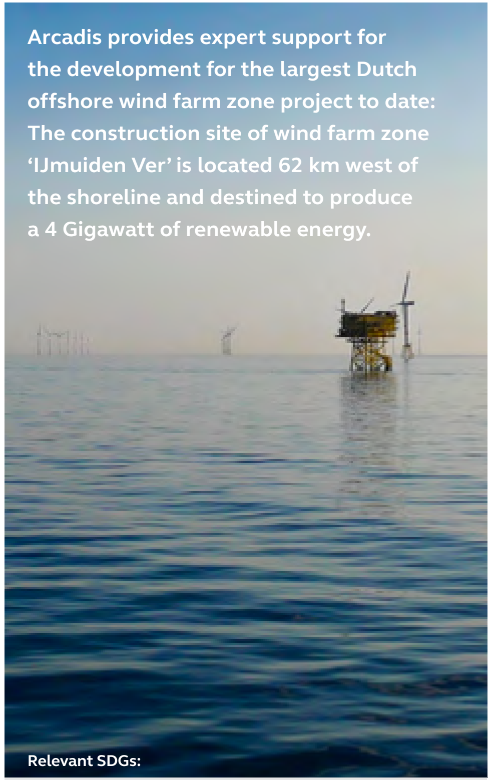
Amtrak, the U.S. National Railroad Passenger Corporation, is investing in a significant program to improve its asset management maturity and ensure safe and reliable mobility for its 33m annual passengers. Arcadis Gen is working with Amtrak to replace its multiple legacy Enterprise Asset Management systems with a single solution and next generation mobile platform.

The project will enable the management of all infrastructure, rolling stock and station assets on a single platform, optimizing asset performance and reliability across the network. Amtrak is the first major customer to benefit from our next generation of BraidTM Mobility Platform, which offers seamless integration across different mobile devices in the field.

This single solution will allow Amtrak to accommodate rapid passenger growth on the North-East corridor route. Also, by reducing maintenance costs, it will help achieve Amtrak's target of zero Federal OpEx funding by 2022, while at the same time achieving their State of Good Repair objectives.

Netherlands Enterprise Agency
'IJmuiden Ver' Wind Farm Zone 62 km west of the Dutch North Sea coast

Storm-proof renewable energy



Arcadis provides expert support for the development for the largest Dutch offshore wind farm zone project to date: The construction site of wind farm zone 'IJmuiden Ver' is located 62 km west of the shoreline and destined to produce a 4 Gigawatt of renewable energy.

Relevant SDGs:

Challenge

A reliable foundation can add a significant amount to the total investment required to build an offshore wind park. Thorough subsoil investigation is a prerequisite for solid calculation of the return on investment. The Netherlands Enterprise Agency (RVO.nl) relies on Arcadis' proven expertise in offshore geophysical and geotechnical engineering to gather and analyze the required data. Arcadis provides expert support to the Netherlands Enterprise Agency.

Solution

Arcadis' geotechnical engineers apply a digital subsoil modeling system already successfully utilized for the Hollandse Kust (noord) Wind Farm Zone. The integrated ground model, created with input from Arcadis experts, allows for maximum design and construction efficiency by providing reliable data for each coordinate of a 125 km^2 site.

Impact

Combining our digital, geophysical and geotechnical expertise we help to create the foundations for the most ambitious projects of Europe's sustainable energy production and transition to a low-carbon economy.

www.rvo.nl

Sustainability

Arcadis has the stated ambition to integrate sustainability in all its business activities and continue our path to be a leader in sustainability. In 2019, we have updated our sustainability strategy in support of that ambition by defining and setting targets within three focus pillars: client solutions, global operations and communities. While we increasingly seek to convince all our clients that sustainable solutions are intrinsically superior, we will concentrate on three areas where we believe sustainability can have the most impact on our client's activities. The process to select these business areas is ongoing. Our aim is to build a globally leading position in those three areas in the next decade. For our global operations we have set a target to become carbon neutral by 2030. We will build on the fact that our business in several European countries has already reached that status and apply that experience to roll out this program to other regions. Finally, we have an ambition for every Arcadian to become active in community programs and have launched a program with the Lovinklaan and KNHM foundations, named Local Sparks, to start delivering on that commitment.

In 2019, Arcadis has integrated sustainable thinking into its finances. In February, the company successfully refinanced €200 million of unsecured committed credit facilities with six relationship banks. In the refinanced credit facilities, Arcadis can benefit from an interest-discount when it reaches certain sustainability KPI's. To achieve this, Arcadis must reach a score of 74 in the Sustainalytics rating. In 2019, a score of 73 was achieved.

In addition, sustainability has also been integrated into the remuneration of senior executives. One-third of the long term incentives of the Executive Board and Executive Leadership Team members will depend on Arcadis achieving a sustainability target to be measured by reference to the score applied to the Company by Sustainalytics, a leading independent global ESG ratings firm which provides a robust analytical framework that addresses a broad range of Environmental, Social and Governance ('ESG') issues and trends that have a significant and material impact on industries and companies.

- Integrated transport solutions
- Protecting communities from climate change
- Transforming underperforming cities

Arcadis has the ambition to move from its current position as outperformer to a leader position. The Supervisory Board will set an ESG target that is aligned with this ambition.

Governance

The Sustainability Program is the responsibility of a Global team led by the Global Sustainability Director, who directly reports to Stephan Ritter, the Executive Leadership Team (ELT) member accountable for Sustainability. The Global Sustainability Director is supported by a Sustainability Steering Committee, which in addition to Mr. Ritter includes the CFO, the Group Executive Sales & Business Development and the Group Executive – Asia Pacific. In the first quarter of 2020, the Arcadis Supervisory Board has established a separate Sustainability Committee.

Sustainability partnerships

Collaboration is key to come to the best and most sustainable solutions. SDG 17 Partnerships for Goals supports this belief, which we practice at Arcadis through active involvement in several global, regional and local partnerships in which we collaborate with other businesses, governments, NGOs, and society.

World Business Council for Sustainable Development

In 2019 we brought more focus in our membership of World Business Council for Sustainable Development (WBCSD) to better leverage our value and the impact we can make. Our strategy is to more closely link business operations to WBCSD programs. Focus for 2019 in this case was to co-lead the Transforming Urban Mobility program within the Cities and Mobility program of WBCSD and join the scoping program of the Future of the Built Environment (including circular economy).

Starting with the Built Environment/ Circular Economy, Arcadis is one of the co-authors and co-signers of the CEO Guide of the Circular Bioeconomy, providing tangible inspirational and practical examples.

Next to this concrete guide, we helped WBCSD scope the program of The Future of the Built Environment and where to focus it in 2020. For this program we are looking into how the different components in the value chain can connect better and how Data/ Digital tools can help. Arcadis was asked to globally research how Digital/ Data can help to make the built environment more sustainable. The execution of this project will start early 2020.

In the Transforming Urban Mobility program, we worked on two projects. The first to develop a Sustainable Mobility System Mapping tool for cities, to help cities look at their whole urban mobility system and how different elements and themes are connected. Next is an analysis to determine where you can influence that system most impactful. The system map is 90% complete and we are now looking for case studies with cities to see if it really works and to finalize the map (Q1 2020). After this pilot, we implementation will be tested in at least 3 cities in 2020, while as Arcadis we use this map in our services and solutions to urban clients.

Next to the system map, we launched the Corporate Mobility Pledge in 2019 and signed the first one ever with the city of Lisbon. This pledge seeks for businesses and cities (or other governments) to join forces to make mobility sustainable. The employer develops policies for his people to use the right modalities (create demand), while cities develop the modalities (create supply). In the Lisbon pledge, the ambition is to develop 3 mobility hubs at strategic locations where employees park their cars and travel sustainably into the city. Arcadis Lisbon is in the project team. Ambition is to look for 3 other cities in 2030.

In 2019 the Executive Committee of WBCSD was expanded to 22 members. One of the new members appointed to this Committee for the next 2 years, starting the 1st of January 2020, is Arcadis CEO Peter Oosterveer.

100 Resilient Cities – pioneered by the Rockefeller foundation

100 Resilient Cities – Pioneered by The Rockefeller Foundation (100RC) was initiated in 2013 in response to three major trends affecting people across the globe: urbanization, globalization, and climate change.

Bringing together a network of member cities and practitioners from the private, public, academic, and non-profit sectors, for the next six years 100RC dedicated its resources to helping cities around the world become more resilient to social, economic, and physical challenges that increasingly characterize the 21st century. 100RC has played a critical role in supporting cities to make their approach to planning and design more resilient. Since 2015 Arcadis is a technical platform partner with 100RC, based on 5-year MOU. The Arcadis commitment to 100RC: Arcadis works -pro bono- with 100RC City leaders to develop and implement urban climate resilience strategies. Sharing international examples of best practices and develop conceptual designs that are multi-functional and have multiple and social benefits. In addition, Arcadis offers resilience roadmaps that address funding and financing strategies.

Resilient Urban Development

Arcadis main activities included workshops for the cities of Vejle, Pittsburgh, Bristol, Honolulu, Huangshi and New Orleans. Other cities that we helped or were involved in activities include Toronto, Norfolk, Manchester, Surat and Chennai while Arcadis is currently considering a request from Calgary. In July 2019, Arcadis co-sponsored the 3-day Global Resilient Cities Summit in Rotterdam. This invite only event, brought together 100 cities (Chief Resilience officers and mayors), 100RC staff and about 100 platform partners (including Arcadis, but also Microsoft, Siemens, Google, Veolia, Deltares and several of our peers).
Arcadis in 2019 launched a white paper entitled The Business Case for Resilience. In it, we explore this topic within the context of cities, industries, utilities and mobility, and we ground the discussion in concrete examples of completed work.

After more than six successful years of growing and catalyzing the urban resilience movement, the existing 100 Resilient Cities organization concluded on July 31, 2019. On July 8, 2019, The Rockefeller Foundation announced an $8 million commitment to continue supporting the work of Chief Resilience Officers and member cities within the 100RC Network. This new funding will enable a new project to continue supporting the implementation of resilience initiatives incubated through the work of 100RC. Based on these changes Arcadis is reviewing where best to support the successors of the 100RC program going forward.

UN Global Compact

We have been a member of the UN Global Compact (UNGC) since 2009 and are committed to its objectives and to the ten universal principles regarding human rights, labor standards, environmental stewardship, and anti-corruption. Our values, mission, and strategy are fully aligned with the UNGC principles, and our signing of these principles reflects our ambition to be a sustainability leader. We are committed to making the UNGC and its principles part of the day-to-day operations of our Company and included this commitment in our General Business Principles. Arcadis regards its suppliers and subcontractors as partners and collaborates with them to ensure their activities are aligned with our UNGC commitment. In addition, Arcadis adheres to the Guidelines for Multinational Enterprises as issued by the Organization for Economic Cooperation and Development (OECD).

Energy and emissions - carbon footprint

Connected material topic

26.

Important to these stakeholders:
- Civil society
- Employees

See our overview of material topics on page 39, and the connectivity matrix on pages 45 and 46.

Our carbon footprint reflects the way we do business. Since 2010, we have reported consistently with World Business Council for Sustainable Development/ World Resources Institute Corporate Reporting Standards (GRP) for most of our operations. The result is a global organization focused on understanding our true environmental impact and a near-perfect decade of reducing our carbon footprint. Our continuous improvement approach has allowed regions to set and achieve individual targets reflecting their specific business model, their client needs, and their peoples' passions. As a global organization, we continue to sharpen our approach to understand both the impact of our operations directly and the indirect impacts our work has on our clients' environmental footprint. At global level, we have set a target in 2019 to reach carbon neutrality for the entire organization by 2030.

Arcadis applies the operational control approach, and accounts for the greenhouse gas emissions from operations over which it has control. For measuring, managing, and reporting on greenhouse gases, we follow methodologies outlined in the Greenhouse Gas (GHG) protocol. While each region has some flexibility in adopting their own targets and tracking their own progress, Arcadis requires regions to report a select set of global metrics annually that we have determined to be material to our organization's environmental impact. Metrics are compiled globally and summarized in the annual report; additional details are published publicly via the Climate Disclosure Project (CDP). Carbon footprint data are reported by the operating companies to environmental sustainability professionals, which review and challenge the data. This review includes a comparison to other operating companies and historical performance.

Every year information is assessed for quality and where necessary adjusted for improved data capture methodologies. In 2019, several improvements in performance and methodologies contributed to our continued footprint reduction:
- Updates to travel estimates in Belgium and Australia drove down distance driven in Arcadis-owned vehicles, however the emissions per FTE remained flat.
- Air travel declined globally likely the result of our business and finding better ways to connect with our clients without traveling. In addition, the installation of policies that forbid short haul flights when there are reasonable rail options has also contributed to this decline.
- Energy consumption continued to decline from 2018 to 2019 as we continue to seek out more energy-efficient buildings, optimize building space, and move to more flexible working environments. In 2019, we have also improved our data collection methodologies in North America and Asia which has led to better data.
- Public transport continues to increase, attributed in part to public agencies' improved data tracking systems and in part to employees favoring more efficient forms of travel.
- Paper consumption also continues to decrease. The decrease in post-consumer waste / Forest Stewardship Council (PCW/FSC) certified content is largely attributed to purchasing habits in North America.

In 2020, we will continue our regional efforts to reduce our impacts. At the global level, we will focus on transitioning regions to a new reporting platform and work individually with each region to ensure consistent estimation techniques and emission factors, particularly for scope 3 indirect emissions, are used and reflective of the way we do business.

Our Core Sustainability Team continues to be pivotal to data collection, reporting, and sharing best practices. Roll-out of an integrated global energy and environmental management continues.

Engaging our clients and integrating sustainability into the work we do also continues. In addition to our efforts to identify ways that we can accurately measure and track impacts related to

our client work, we continue to see greater interest from our clients and our people to collaborate more and embed sustainability into everything we do. Our commitment to sustainability continues to support our drive to improve quality of life in every community in which we operate.

Carbon footprint results

Emission per FTE by emission source

CO_2 Emissions (MT CO_2/FTE)	2019	2018	2017	2016	2015
Scope 1 Vehicles (Business)	0.48	0.44	0.54	0.57	0.66
Scope 1 Vehicles (Commuting)	0.05	0.06	0.07	0.07	0.09
Scope 2 Electricity	0.60	0.96	1.02	1.02	1.16
Scope 3 Air	0.79	0.81	0.83	0.83	0.88
Scope 3 Auto	0.38	0.49	0.60	0.60	0.50
Scope 3 Public Transport	0.18	0.18	0.19	0.19	0.17
Scope 3 Natural Gas	0.08	0.05	0.08	0.08	0.10
Scope 3 Fuel (Other)	0.00	0.00	0.00	0.00	0.00
Total	**2.55**	**2.98**	**3.34**	**3.50**	**3.56**

Nominal metric per FTE by emission source

metrics per FTE	2019	2018	2017	2016	2015
Scope 1 Vehicles (km/FTE)	2,140	2,268	2,829	3,247	3,446
Scope 2 Electricity (kWh/FTE)	1,366	2,021	2,147	2,189	2,403
Scope 3 Air (km/FTE)	6,396	6,786	6,838	6,815	6,674
Scope 3 Auto (km/FTE)	1,632	1,899	2,319	2,278	2,179
Scope 3 Public Transport (km/FTE)	2,499	2,267	2,311	2,215	2,122
Scope 3 Natural Gas (kWh/FTE)	396	250	405	445	519
Scope 3 Other fuel (kWh/FTE)	15	19	21	19	25
Paper consumption (kg/FTE)	19	24	29	28	29
FSC/PCW paper (%)	67%	82%	87%	85%	83%

Environmental non-compliance

Connected material topic **32.**

Important to these stakeholders:
- Civil society
- Employees

See our overview of material topics on page 39, and the connectivity matrix on pages 45 and 46.

Arcadis performs many environmental remediation projects annually. These projects involve the removal of (hazardous) chemicals from soil, groundwater and sediments. Over the years, Arcadis has specialized in in-situ remediation technologies, negating the need to haul these (hazardous) chemicals and transport them to treatment plants. The inherent advantages of in-situ remediation technologies are related to cost, safety and ease of compliance. The cost reduction mostly stems from the reduced use of machines and manpower to remove materials from treatment sites. In situ remediation also reduces Health & Safety risk as the risk of physical contact with the hazardous materials is greatly reduced. Arcadis has a strong health and safety program, geared towards seeing to the residual risks which remain in these projects. Finally, compliance with environmental standards is easier to manage, as no materials leave the site, unless this is unavoidable for proper treatment.

In 2019, a fine of €31,000 was imposed by the Municipality of Genoa in relation to an environmental remediation project in the Region of Liguria, Italy. The fine was imposed for an incorrect classification of a certain waste as hazardous and the administration of an incorrect quantity of such waste in the internal register of Arcadis. Except for this matter, no material environmental non-compliance issues were reported within Arcadis in 2019 (2018: none).

Climate change

Connected material topic

33.

Important to these stakeholders:
- Civil society
- Employees

See our overview of material topics on page 39, and the connectivity matrix on pages 45 and 46.

Arcadis' broad consulting capabilities related to climate change range from strategy development and carbon footprint reporting to consulting on preventing or reducing the causes of climate change. The company consults to both governments and private companies to assist them in significantly reducing carbon outputs and increase climate resilience over the next decades.

In 2019, Arcadis announced that it will be working as part of the collaborative £2.6 billion Client Support Framework, to support all aspects of the United Kingdom's Environment Agency's program of capital investment and improvement works for flood defenses across the country, including contract and cost management, and carbon reduction. The Environment Agency's vision is to help create better places for people and wildlife, working with others to enhance the environment and protect communities through greater collaboration with delivery partners. As part of the four-year framework, Arcadis will support the Environment Agency as it further modernizes its approach to program, asset and incident management. By continuing to deliver improvements in sustainability and innovation it is hoped that, through the framework, the Environment Agency will be able to protect up to 300,000 homes from flooding hazards by 2021.

The new framework can also be used by all local councils and risk authorities to support their flood resilience projects and programs nationally.

Industrial resilience

Arcadis also supports its industrial and utility clients in dealing with he effects of climate change. Case in point is General Motors (GM) which runs a production facility within the Guanajuato region of Mexico, an area with considerable water stress. In line with GM's commitment to reduce water use across its operations by 15% by 2020, the company needed innovative solutions to conserve water at this facility, making it more sustainable and less vulnerable to the chronic stress of water scarcity in the vicinity. Arcadis conducted an audit to understand exactly how water was being used and developed designs for reducing water use.
Our solution was based on optimizing and upgrading the on-site wastewater treatment plant, including a micro-bio reactor (MBR) and a three-stage reverse osmosis system. As a result, GM's facility now uses around 900,000 liters (around 238,000 gallons) less water each day – more than 329 million liters (87 million gallons) saved each year. This effort has already enhanced this facility's resilience and improved quality of life for people living nearby, as GM now has a much lower demand for water from the stressed wells in the region.

We are in the process of assessing our risks and opportunities posed by climate change based on the work of the Task Force of Climate Change Related Disclosure. The experience gained through this can then also be applied to work for clients.

Circular economy and Clean Tech

The circular economy is restorative and regenerative by design. Relying on system-wide innovation, it aims to redefine products and services to design waste out, while minimizing negative impacts. Underpinned by a transition to renewable energy sources, the circular model builds economic, natural, and social capital.

In 2019 Arcadis contributed to the World Business Council for Sustainable Development CEO Guide to the Circular Bioeconomy, a call for the shift towards a sustainable, low-carbon, circular bioeconomy. It presents a US$7.7 trillion opportunity for business by 2030, establishing the circular bioeconomy as a nature-based solution that addresses five of our greatest environmental priorities. While the global population has doubled over the last 50 years, resource extraction has tripled. 90% of biodiversity loss and water stress are caused by natural resource extraction and processing. Unless we become more effective in how we harvest, process, use and reuse biological resources, we will be confronted with the catastrophic consequences of climate change, biodiversity loss and resource scarcity.

In Asia, Arcadis supported the development of Ocean Cleanup's new river cleanup system capable of cleaning approximately 90% of the plastic waste floating in a river course. Currently they are implementing this across several rivers in Asia. Arcadis is supporting the client in Malaysia with the implementation of this new technology, through in country project management support, stakeholder engagement and developing the voluntary impact assessment, as requested by the client. The impact assessment will be used to showcase the potential positive impacts that the system has on relieving the river and the connected estuary of plastic waste.

Arcadis applies Clean Tech in its own operations to drive down its carbon footprint and transfer to renewable energy use. On three Dutch offices we now have solar panels with an ambition to expand. Our operations in the Netherlands and Belgium are carbon-neutral, and we continue to focus on reducing energy use. In Germany and France, we purchase green electricity.

We also assist clients to implement Clean Tech solutions in pursuit of their sustainable ambitions. For windfarms (onshore and offshore) we provide solutions in geotechnical consulting, permitting and engineering. For a Dutch client we developed an award-winning app for citizens which forecasts the noise and shadow flicker impact of wind turbines. The aim is to increase acceptance for the development of wind parks. We also assist in the co-development of local renewable energy supply systems such as Etriplus in the Netherlands. Arcadis also provides services around solar projects and heat/ cold storage installations. Next to that we help power grid clients expand their electricity infrastructure needed for the energy transition. Good example is our involvement in establishing on-land connections for windfarms on the North Sea.

http://www.etriplus.nl

Disclosures related to environmental matters

Arcadis' Global Sustainability Policy commits the Company to the following:

- Through the provision of our services, we seek to promote and achieve reduced negative environmental and social impacts and maximized positive impacts for our clients.
- Where possible, we work to avoid or reduce negative environmental impacts from our own activities and operations.
- We work with our suppliers and partners to select products and services which are socially, economically and environmentally responsible.
- Empower and encourage our people, through training and our senior leaders, to embrace sustainable practices in everything we do.
- As a minimum, we comply with legislation and regulatory requirements that apply to our operations and our project activities.
- We measure our impacts effectively and monitor our performance through key performance indicators.
- We set appropriate targets and strive for continuous improvement. This includes, but is not limited to the issues of energy, water, waste and carbon.

This policy is implemented at a regional level to reflect the varying challenges and priorities in different localities. Performance is reported to the Executive Board and made available to our stakeholders as appropriate.

Outcomes of the policy

Arcadis NV operates under a certified Energy Management System in accordance with ISO 50001. Arcadis NV's carbon reduction goal is to reduce 30% MT CO_2 per FTE and 20% energy (GJ) per FTE in 2025 compared to 2015. In 2019, Arcadis NV saw an increase in energy use per employee especially as a result of increased air travel cause by the North American implementation of the Arcadis Way program which required substantial on-site support. This temporary effect will fall away in 2020. As a result our 2019 carbon footprint was higher, although some of that increase was mitigated by our continued participation in the KLM Corporate BioFuel Program (CBP) through which the company will purchase sustainable biofuel for all its business flights. In 2020, Arcadis NV will compensate its remaining carbon footprint through an urban cookstoves project in India, making it carbon neutral as of that year. The Arcadis activities in the Netherlands and in Belgium are already carbon neutral. Overall strategic goal for the company is to be globally carbon neutral by 2030. This target was adopted during 2019 as part of the sustainability strategy renewal.

Entrepreneurial innovation with Techstars

As part of its long-term vision on digital development, Arcadis is cooperating with Techstars, a global business accelerator network. The goal is to identify and develop innovative start-ups to transform the natural and built environment with a focus on shaping the cities of the future.

In the 'Arcadis City of 2030 Accelerator, Powered by Techstars' program Arcadis supports the selected companies, providing a team of mentors to help with subject-matter expertise, client connections and industry insights. Learnings from this process will be brought back into Arcadis to help the organization 'innovate outside the fence' and bring the very latest innovations to our clients. Arcadis was the first company among its global peers to get together with a market leading start-up accelerator. The main objective of Arcadis' investment in the program is to support our mission to be a digital and innovative frontrunner in our sector. Our belief in the creativity of startups is a logical consequence of our strategy and an important element in the company's transformation towards digital leadership in the urban environment of the future. In the program, 10 start-ups were selected and in 2019 a demo day was held in which the startups presented their innovative plans for the city of the future.

Large urban and private sector clients expressed interest and actively engaged with several of the startups in the course of the year. The ten promising business initiatives of the first year of the program will continue to be supported by the Arcadis Techstars program. Examples include CityFlag, a collaborative and AI-enhanced digital platform for municipalities to communicate directly with residents, and Mela Works, a reporting and communication tool for 'on-site' workers in construction and manufacturing settings. Not only did these and other program alumni companies triple their year-on-year revenues in aggregate during the accelerator program, but many are successfully raising capital for growth and working closely with Arcadis businesses and their clients worldwide on pilots and commercial agreements.

Continued cooperation

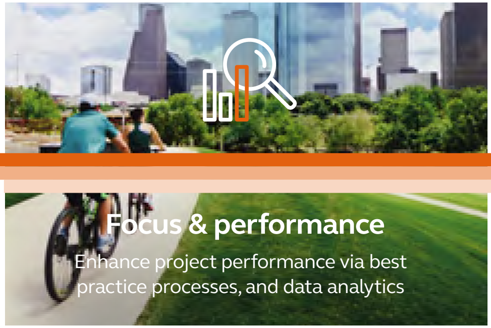
In August, Arcadis announced that it will continue its cooperation with Techstars, and they have jointly invited start-ups with pioneering technologies and disruptive ideas to improve the quality of life across the following topics: mobility, resilience, resources (energy, water, food and air), urban development and regeneration. For this second rendition, ±300 companies applied. After a selection process, ten start-ups will work with the program team during a three-month accelerator program in 2020. The companies get support from industry mentors to swiftly grow their business, fine tune products and business development efforts, build relevant networks, and develop client connections and industry insights. The ten companies will be provided with working space at the Arcadis Innovation Hub in Amsterdam. Arcadis and Techstars will invest in the ten selected companies, each receiving a 3% equity stake.

www.arcadis.com/en/global/pages/techstars-demo-day
www.techstars.com/arcadis-program

The Arcadis Way

Implementing harmonized business processes, supporting technologies and behaviors, creates a global way of working. The Arcadis Way enables employees to grow and provide superior value to clients, realize their potential, and work jointly towards common goals, based on shared values.

Our harmonize way of working



Single cloud platform covering People, Clients, Sales, Delivery, Finance, and Business Intelligence

Key processes and operational control points for projects

Market-to-opportunity

- Create awareness
- Identify need
- Create opportunity

Pursuit-to-win

- Create pursuit team & approach
- Create offer
- Contract awarding

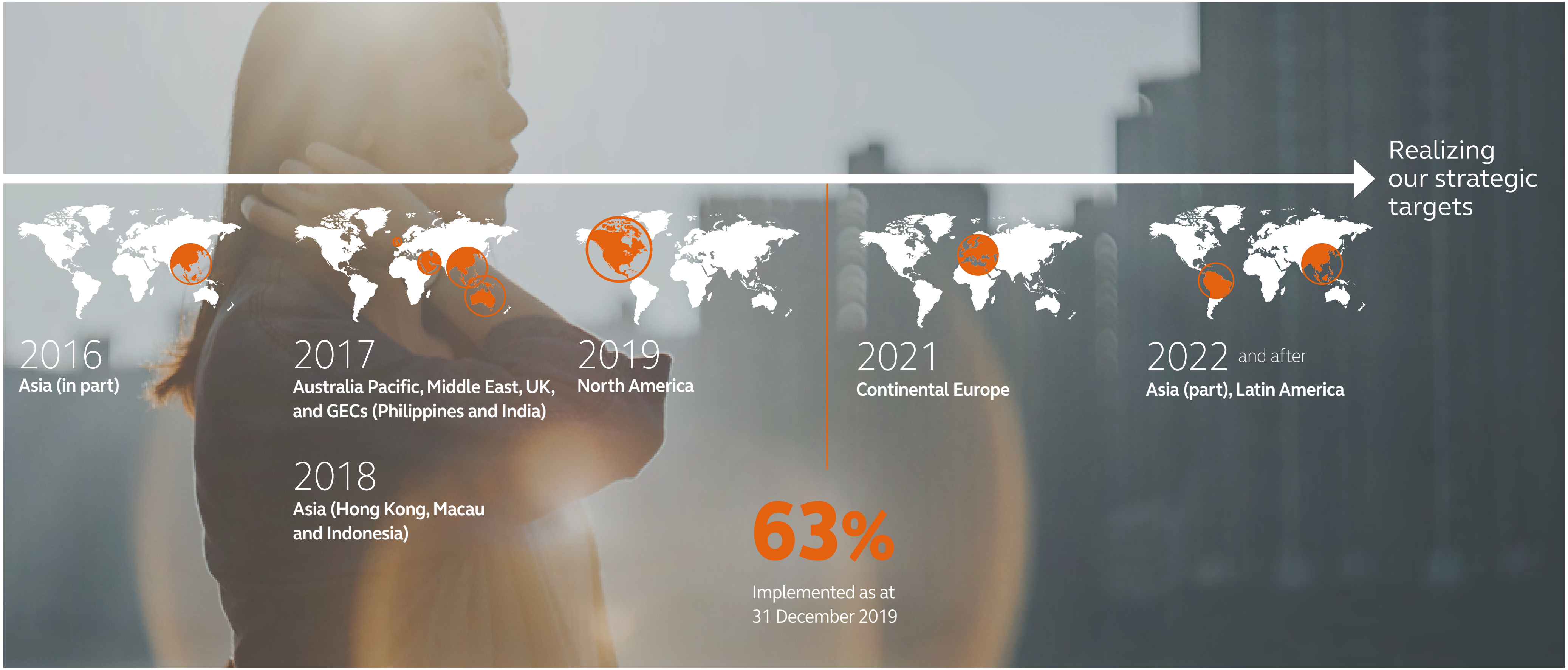
Deliver-to-result

- Initiate project
- Plan project
- Control project / Execute project
- Close project

Control points: Client go/no-go · Opportunity go/no-go · Strategic Pursuit Committee · Sign contract · Handover meeting · Project kick-off · Project reviews · Reflect & learn

Progress Arcadis Way implementation

Net revenues of countries on Arcadis Way as percentage of total net revenues



Performance & developments
Focus & Performance

Focus where we can lead, and deliver client and project excellence.

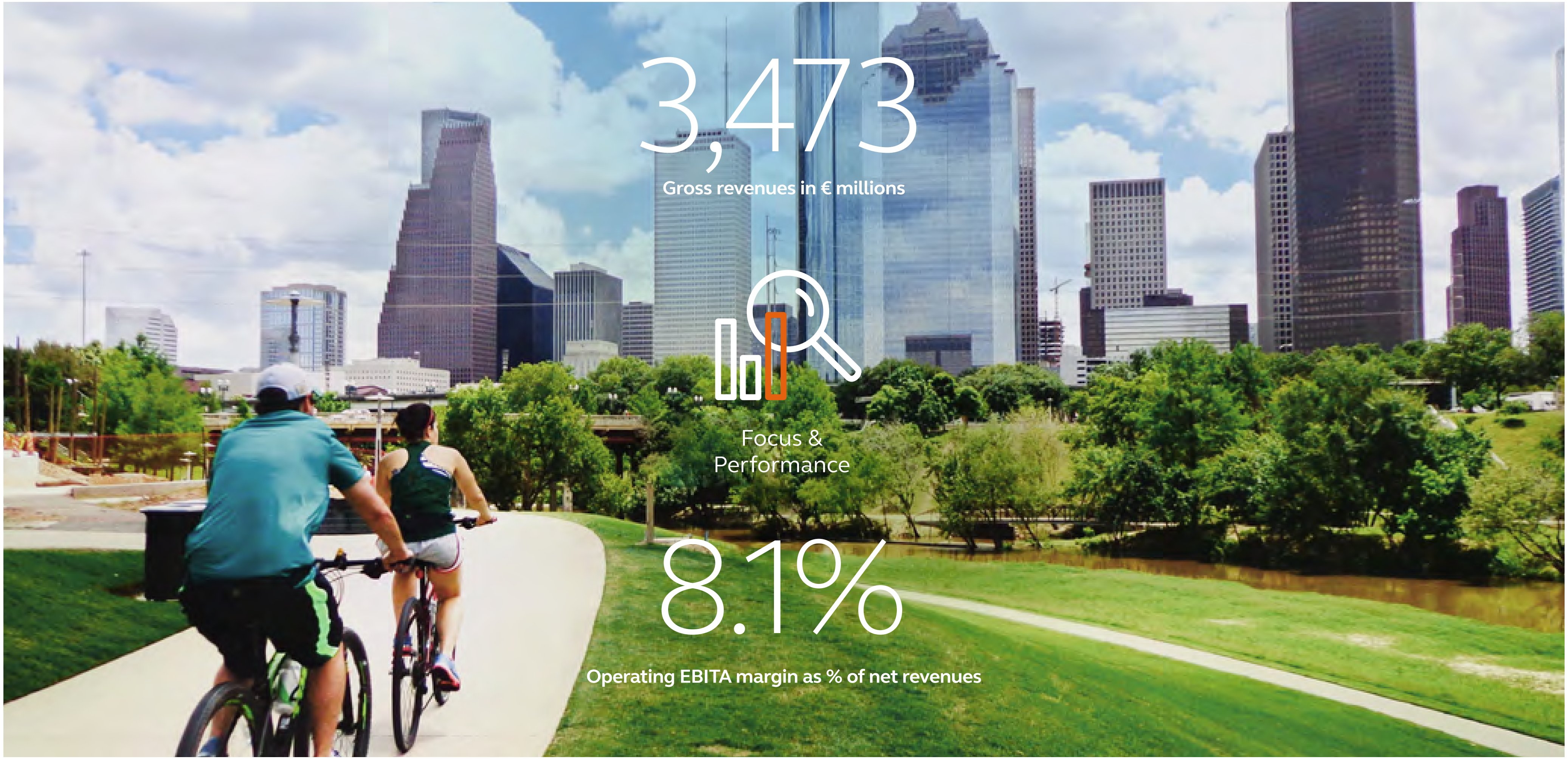
At Arcadis, we build leadership positions based on relevance for clients, local presence, and global positions. Businesses that fail to meet our criteria are de-prioritized. Consistency is created through the Arcadis Way. We can offer competitive delivery models by increasing the utilization of our Global Excellence Centers.

For definitions and methods of measure for these indicators please refer to page 277. The indicators that fall within the scope of limited assurance of our external auditor are marked with the ✓ symbol. See page 269 for the Assurance report of the independent auditor, which includes details on the scoping and outcomes.

↑ Improvement ↓ Deterioration ↔ Unchanged

Figures based on IAS17 for comparison purposes. For the IFRS16 figures see page 272.

Indicator	2019	Trend	2018
Gross revenues in € millions	3,473	↑	3,256
Net Income from Operations per share in €	1.42	↑	1.01
Dividend per share proposed, in €	0.56	↑	0.47
Operating EBITA margin as % of net revenues	8.1%	↑	7.3%
Net Income from Operations in € millions	125	↑	88
Net Working Capital as % of gross revenues	16.6%	↓	15.1%
Days Sales Outstanding (DSO)	88	↓	80
Return on Invested Capital (ROIC)	6.1%	↑	4.7%
Net debt to EBITDA ratio average	1.4	↑	2.0
Free Cash Flow in € millions	97	↓	149


3,473
Gross revenues in € millions
Focus & Performance
8.1%
Operating EBITA margin as % of net revenues

Focus & Performance

In 2019, we delivered a sustained revenue growth and improved our operating margin on the back of megatrends like urbanization, sustainability and digitization. We are also pleased with the results in Asia, the Middle East and Latin America, following the actions we took. Our balance sheet is strong despite a lower free cash flow due to residual delays in cash collection in North America resulting from the Oracle Cloud implementation. When we announced our strategy 'Creating a Sustainable Future' in 2017, we defined a clear path on long-term value creation, we are now pleased to see that our efforts deliver results.

Financial highlights for the year[1]

- Organic net revenue growth of 3% to €2.6 billion (gross revenues of €3.5 billion)
- Operating EBITA increased by 18% to €209 million (2019 IFRS 16: €213 million) (2018: €177 million); Operating EBITA margin improved to 8.1% (2019 IFRS 16: 8.2%) (2018: 7.3%)
- Free cash flow of €97 million (2018: €149 million), temporarily held back by higher working capital due to the implementation of the new Oracle Cloud solution in North America
- Net working capital at 16.6% (2018: 15.1%); DSO at 88 days (2018: 80 days)
- Reduction of net debt (according to bank covenants) to €310 million, resulting in a Net debt/EBITDA ratio of 1.3
- Proposal to increase dividend to €0.56 per share (2018: €0.47). Pay-out ratio at 40%

1 The figures in the text are based on IAS 17 for comparison purposes. The 2019 figures based on IFRS 16 are reported in brackets where they deviate from the IAS 17 figures

"We see that our efforts on project excellence and focus on cash collection are contributing to the achievement of the targets set for 2020."

Sarah Kuijlaars
CFO Arcadis

Direct economic value generated

Connected material topic **1.**

Important to these stakeholders:
- Management
- Employees

See our overview of material topics on page 39, and the connectivity matrix on pages 45 and 46.

Gross revenues for the year amount to €3,473 million (2018: €3,256 million). Net revenues totaled €2,577 million and increased organically by 3%, the currency impact was 3%. Revenues increased in all regions except for the Middle East (selective bidding) and in CallisonRTKL.

Make Every Project Count

One of our top 10 priorities is the Make Every Project Count (MEPC) program. The program aims to significantly improve project financial performance by focusing on aligning our people, behaviors, processes and systems with The Arcadis Way. It is an important lever to improve our financial performance over the next years and be a leader in our industry.

MEPC has a bottom-up approach. In Maturity Assessment workshops – performed on a business unit level – our people evaluate and rate their unit's maturity on ten principles that describe how we do business at Arcadis. Those principles cover the whole project lifecycle: from sales and project delivery towards project close-out and capturing lessons learned. Units identify improvement areas and agree actions to improve their maturity. At the start of the program in 2018, we performed 120 of those one-days workshops. In 2019 the outcomes have been evaluated in all regions and the action plans were actualized if needed. The Maturity Assessments will be performed every year for the duration of the program. In addition, we developed a number of tools (or 'building blocks') on a central level, aimed to support our units in increasing their maturity.

Examples of these building blocks are a project review training for our line managers, improved risk management tools for project managers and client portfolio analyses for our sales community.

Make Every Project Count requires participation from different roles in the company: project management, Finance, Legal, risk management, line management and Sales & Business Development. Our client and project excellence focus will enable us to execute our projects consistently and flawlessly. This will also drive Sales & Business Development and sales excellence across the project lifecycle.

The results of this program became visible in 2019 in several of our regions and countries. We recognized a reduction of the number of loss-making projects and there was more focus on project management capabilities and selective tendering. This success was down to a combination of better collaboration, client selection/ negotiation and operational discipline. We have seen fewer negative surprises in our project performance in 2019. By executing structured monthly reviews, being transparent on all challenges, asking for help and tracking scope changes, our teams control and manage their projects in a disciplined way. The combination of the right people, selectivity, mindset and discipline led to this achievement.

Due to a stricter project review regime in 2019 we believe that our current project portfolio is healthier than it was before. We expect in the coming years an improvement of project financial performance as a result of the MEPC program.

Direct economic value distributed

Arcadis shares in general

Arcadis shares are listed on Euronext Amsterdam under the symbol ARCAD, where it is a constituent of the Amsterdam Midkap Index® (AMX). The average daily trading volume in Arcadis shares on Euronext Amsterdam in 2019 was 176,225 shares (2018: 214,298). Of the total volume traded, 63% of the shares were traded via Euronext, 18% via BATS, 11% via CHI-X, 7% via Turquoise and 1% via Equiduct.

As at 31 December 2019, and pursuant to the Dutch Financial Supervision Act, the largest shareholders in Arcadis were:

Stichting Lovinklaan	18.2%
APG Asset Management	14.6%
Fidelity Management & Research	10.0%
Impax Asset Management	8.0%
Vereniging KNHM	3.8%

Arcadis has an active investor relations policy aimed at supporting the Company's long-term plans by keeping existing and potential shareholders fully abreast of its strategy and latest operational and financial developments. To emphasize its focus on the long term, Arcadis releases a trading update for the first and third quarters of the year, and a full set of financial results for the full and half-year. Twice a year, at the presentation of its full-year and half-year results, Arcadis holds a financial press and analyst conference, which is broadcasted live over the internet. A conference call was held in 2019 for financial analysts and investors at the presentation of the trading updates and the announcement to stop investing in ALEN.

As part of its communications policy, Arcadis regularly keeps the public informed about other important developments, such as significant project wins or acquisitions, through ad hoc press releases.

In 2019, Arcadis held investor roadshows and participated in investor conferences in the world's major financial centers including Boston, Brussels, Frankfurt, Paris, London, New York, Toronto, while also hosting reverse roadshows for investors at its offices. Approximately 200 investor meetings were held during the year. Arcadis is currently covered by seven financial analysts.

The Annual General Meeting of Shareholders is scheduled for 6 May 2020 2.00 p.m. in Amsterdam, the Netherlands. The agenda for this meeting will be available in March 2019 from the Company upon request, and will be published on the Company's website.

Number of outstanding ordinary shares

The total number of outstanding ordinary shares as at 31 December 2019 was 89,045,228 (see note 25 of the Consolidated financial statements). During 2019, 850,000 shares were repurchased to cover obligations related to incentive plans, while 757,115 previously repurchased shares were used for the exercising of options, and another 1,426,786 shares were issued for stock dividend.

The average number of shares, used for calculating earnings per share, increased to 88.4 million (2018: 87.1 million). For more information on the number of outstanding shares and options, and on share purchase plans, see notes 9, 12 and 25 to the Consolidated financial statements.

Share price development

On the last trading day of 2019, the Arcadis share price closed at €20.78, while on the last trading day of 2018 it closed at €10.66, a year-on-year absolute increase of 95%. Including reinvested dividends, the total return was 99%. The development of the Arcadis share compared to the peer group companies is shown in the graph on page 90.

The peer group consisted of the following international, publicly listed companies in the consulting and engineering industry with activities and a size comparable to those of Arcadis: Aecom (New York Stock Exchange); Cardno (Australian Securities Exchange); Hill International (New York Stock Exchange); Jacobs (New York Stock Exchange); AF Pöyry (The Nordic Exchange, Stockholm); RPS (London Stock Exchange); SNC-Lavalin (Toronto Stock Exchange); Stantec (New York Stock Exchange); Sweco (The Nordic Exchange, Stockholm); Tetra Tech (NASDAQ); Wood Group (London Stock Exchange); Worley Parsons (Australian Securities Exchange); WSP (Toronto Stock Exchange).

Earnings per share

The basic earnings per share for 2019 amounted to €0.20 (2018: -€0.31) (2019 IFRS 16: €0.14). Earnings per share based on Net Income from Operations amounted to €1.42 (2018: €1.01) (2019 IFRS 16: €1.36).

Dividend per share (policy and proposal)

Arcadis' dividend policy is aimed at dividend stability and a pay-out of 30 - 40% of Net Income from Operations, to provide shareholders a respectable dividend yield, to maintain a healthy financial structure, and to retain sufficient earnings in order to grow both organically and through acquisitions. In line with our policy, a dividend of €0.56 per share (2018: €0.47) is proposed, being 40% of Net Income from Operations (excluding IFRS 16 impact).

As in the previous year, shareholders will be offered the choice between a cash dividend or a dividend in shares, with further details to be provided in the agenda for the Annual General Meeting of Shareholders.

Profit and loss performance

Connected material topic

5.

Important to these stakeholders:

- Investors
- Management

See our overview of material topics on page 39, and the connectivity matrix on pages 45 and 46.

The profit and loss performance of Arcadis in 2019 and 2018 is summarized as follows (see also the Consolidated financial statements):

In € millions	IFRS 16 2019	IAS 17 2019	2018
Operating income reported	175.5	172.3	98.4
Depreciation and amortization	116.6	46.0	42.8
Amortization other intangible assets	16.6	16.6	22.7
Impairment charges	–	–	40.4
EBITDA	**308.6**	**234.9**	**204.1**
EBITA	192.1	188.9	161.5
Non-operating costs	20.5	20.5	15.7
Operating EBITA	**212.6**	**209.4**	**177.2**

EBITDA, EBITA, and operating income

Our EBITDA in the year was €235 million (2019 IFRS 16: €309 million) (2018: €204 million). EBITA increased by 17% to €189 million (2019 IFRS 16: €192 million) compared to €162 million in 2018. Operating EBITA increased by 18% to €209 million (2019 IFRS 16: €213 million) (2018: €177 million) including a currency impact of 3%. Operating EBITA margin increased to 8.1% (2019 IFRS 16: 8.2%) (2018: 7.3%). Non-operating costs were €21 million (2018: €16 million), of which €9 million related to restructuring in Europe & the Middle East, €10 million provided for an orderly wind-down of ALEN, and €2 million is for other acquisition & divestment related costs.

Personnel costs

Personnel costs were €1,996 million, a 1% increase compared to the previous year (2018: €1,887 million). Our global workforce increased by 2% compared to December 2018. The number of people in the regions increased by 2% and by 8% in the Global Excellence Centers.

Other operational costs

Other operational costs were €354 million (2019 IFRS 16: €281 million), in line with previous year (2018: €355 million).

Depreciation and amortization

Depreciation and amortization of property, plants and equipment and software was €46 million (2019 IFRS 16: €117 million) (2018: €43 million). Identifiable intangible assets related to acquisitions such as the profit included in backlog, customer relationships, and brand values are amortized. The amortization in 2019 was €17 million (2018: €23 million).

Net finance expense

Net finance expenses were €29.7 million (2019 IFRS 16: €39.5 million) (2018: €27.1 million). The interest expense on loans and borrowings of €25.2 million was in line with last year due to lower average gross debt, offset by higher amortization of transactions fees.

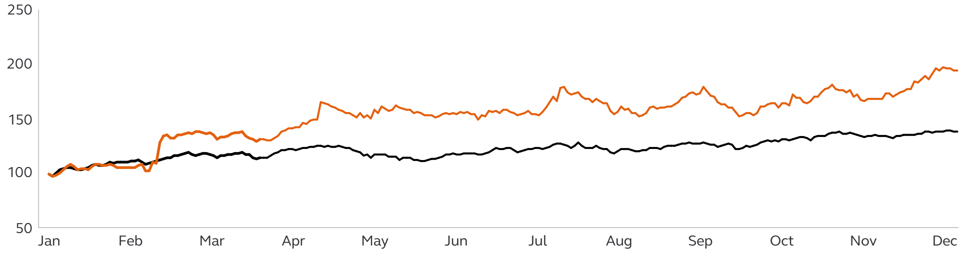
Results for associates and joint ventures

The expected credit loss on shareholder loans and corporate guarantees related to the non-core clean energy assets in Brazil was €82.4 million (2018: €53.9 million). Results from investment accounted for using the equity method was €1.3 million (2018 €12.7 million (loss), including a share in result from ALEN of €13.3 million (loss)).

Income taxes

The effective tax rate, excluding the total impact of ALEN was 26.8% (2019 IFRS 16: 27.3%) (2018: 27.2%). The tax rate was impacted by, among other things, non-deductible expenses, updates to tax positions from previous years and unrecognized losses.

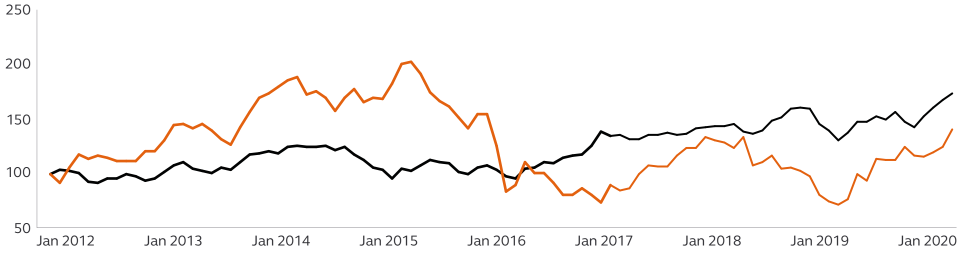
Arcadis (Euronext) against AMX



Arcadis — AMX

1st quarter	2nd quarter	3rd quarter	4th quarter
14.78 High	17.63 High	19.15 High	21.00 High
10.40 Low	14.19 Low	16.22 Low	16.26 Low

Arcadis (Euronext) against peer group



Arcadis — Peer group

Net income from Operations

Net income for the year was €18 million (2019 IFRS 16: €12 million) compared to a loss of €27 million in 2018 and was impacted by the provision to cover the full exposure on the Brazilian energy assets.

Net income from operations increased 42% to €125 million (2019 IFRS 16: €120 million) (2018: €88 million) or €1.42 per share (2019 IFRS 16: €1.36) (2018: €1.01).

Balance sheet performance

Connected material topic
8.

Important to these stakeholders:
- Investors
- Employees

See our overview of material topics on page 39, and the connectivity matrix on pages 45 and 46.

Year-on-year, the balance sheet total increased to €2,913 million (2019 IFRS 16: €3,163 million) (2018: €2,709 million), amongst others due to transactions with owners of the Company. The total amount of intangible assets, including goodwill, increased to €1,080 million (2018: €1,054 million), and was mainly impacted by additions in software (under development), amortization and exchange rate effects.

The investments in (in)tangible assets (excluding acquisitions and right-of-use assets) increased to €49 million (2018: €69 million), mainly as a result of higher investments in software and intangibles under development.

(Net) Working Capital and Days Sales Outstanding (DSO)

Due to the temporary arrears in North America, working capital as a percentage of gross revenues was 16.6% (2018: 15.1%), while the days sales outstanding increased to 88 days (2018: 80 days).

As at 31 December, Net Working Capital, and Net Working Capital as a percentage of Gross revenues was calculated as follows:

In € millions	2019	2018
Trade receivables (excl. receivables from associates)	602	582
Contract assets (unbilled receivables)	670	545
Contract liabilities (billing in excess of revenue)	(285)	(255)
Provision for onerous contracts (loss provisions)	(91)	(116)
Accounts payable	(279)	(236)
Net Working Capital	**617**	**520**
Q4 gross revenues, annualized	3,720	3,444
Net Working Capital as % of Gross revenues	**16.6%**	**15.1%**

Cash and cash equivalents

Cash and cash equivalents at year-end amounted to €297 million (2018: €241 million).

Equity

The movements in total equity are summarized in the Consolidated statement of changes in equity on page 181.

Loans and borrowings

Long-term loans and borrowings increased to €461 million (2018: €386 million). Short-term loans and borrowings, including the current portion of long-term debt, decreased to €150 million (2018: €202 million).

In January 2019, Arcadis successfully refinanced €200 million of syndicated committed credit facilities with its six core relationship banks. The maturity of two Term loans and a Revolving Credit Facility (RCF) has been extended to 2024, with the option for Arcadis to extend the RCF twice with one year to 2026. The first option to extend the RCF has been excercised in 2019, extending the maturity of the RCF to 2025. The terms of the refinanced credit facilities include an interest discount when the Sustainalytics score improves to 74 (currently at 73).

Including the refinanced facilities, Arcadis has €915 million of unsecured committed credit facilities which are stepwise maturing between 2020-2024 (with the option for Arcadis to extend the RCF to 2026). The well diversified, multicurrency, unsecured committed credit facilities comprise of US Private Placements, Schuldschein, syndicated term loans and RCFs. Currently, there is ample headroom available in the unutilized part of these unsecured committed credit facilities.

Net debt

Net debt (according to bank covenants) was €310 million (2018: €342 million). Interest bearing debt also includes after-payment obligations related to acquisitions, totaling €12 million (2018: €9 million).

The bank covenant ratios are not impacted by the transition to IFRS 16. Net debt and EBITDA for covenant reporting purposes are lease-adjusted (frozen GAAP). Total lease liabilities at 31 December 2019 were €291 million.

Balance sheet ratios

The year-end net debt to EBITDA ratio per the bank covenants was 1.3 (2018: 1.7). Based on the average net debt for June 2019 and December 2019, the leverage ratio per the bank covenants was 1.4 (2018: 2.0). The Return on Invested Capital was 6.1% (2019 IFRS 16: 5.9%) (2018: 4.7%). Also, the other balance sheet ratios remained solid at year-end 2019:

- Net debt to equity ratio was 0.3 (2019 IFRS 16: 0.6) (2018: 0.4)
- Lease-adjusted interest coverage ratio was 2.7 (2018: 2.6).

Covenants in loan agreements with banks stipulate that the average net debt to EBITDA ratio should be below 3.0, which is measured twice a year: at the end of June and at year-end. The calculation is based on the average of net debt at the moment of measurement and on the previous moment of measurement, divided by the (pro-forma) EBITDA of the twelve months preceding. According to this definition, the average net debt to EBITDA ratio at year-end 2019 was 1.4 (2018: 2.0). Arcadis' long-term goal is a net debt to EBITDA ratio between 1.0 and 2.0.

With effect from 31 December 2013, a lease-adjusted interest coverage ratio is also applicable in which EBITDA to relevant Net Finance Expense ratio must exceed 1.75, measured twice a year at year-end and at the end of June. At 31 December 2019, this ratio calculated in accordance with agreements with lenders is 2.7 (2018: 2.6).

Management has assessed the going concern assumption. A sensitivity analysis performed on the balance sheet ratios supports the preparation of the Consolidated financial statements based on going concern (see also page 241 and note 31 of the Consolidated financial statements).

Cash flow performance

Connected material topic

9.

Important to these stakeholders:
- Investors
- Management

See our overview of material topics on page 39, and the connectivity matrix on pages 45 and 46.

EBITDA improved by 15% to €235 million (2019 IFRS 16: €309 million) (2018: €204 million). Free cash flow decreased to €97 million (2018: €149 million). The cash flow was held back by the implementation of the new Oracle Cloud solution in North America. Despite the good progress made in the fourth quarter, the return to normalized working capital and DSO levels takes more time than earlier anticipated. As monthly billings are now higher than gross revenue this situation will be resolved in due course.

Performance by Segment

The four Segments of Arcadis (Americas, Europe & Middle East, Asia Pacific, and CallisonRTKL) reflect the operating model and responsibilities of the members of the Executive Board. The performance and developments of these Segments are described in more detail in the next sections of this Annual Integrated Report.

Financial dates

The tentative financial publication dates for Arcadis NV in 2020:

24 April	Trading update Q1
6 May	Annual General Meeting of Shareholders
28 July	First half year results
29 October	Trading update Q3
19 November	Capital Markets Day

Performance by segment: Europe & Middle East

Number of employees
headcount as at 31 December

13,230

2018: 12,929

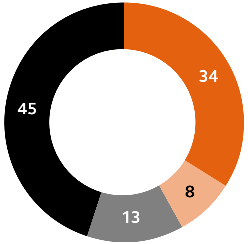
% of net revenues
of total Arcadis

44%

2018: 46%

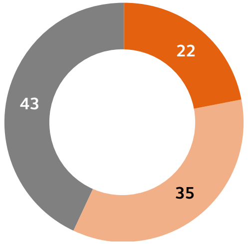
Clients

Unilever, Triodos Bank, Network Rail, Environment Agency, Homes England



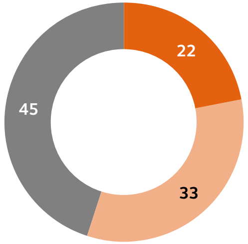
Expertise in %

- Infrastructure
- Water
- Environment
- Buildings



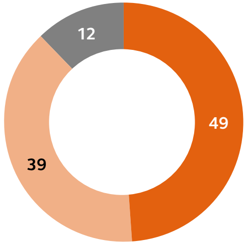
Services in %

- Consultancy
- Design & engineering
- Program, project & cost management
- Architectural design



Clients in %

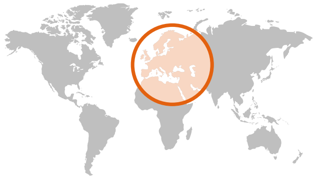
- Public
- Regulated
- Private industrial



Segments in %

- Continental Europe
- United Kingdom
- Middle East

Performance by Segment



Performance in 2019

People & Culture

Number of employees
headcount as at 31 December
13,230 ↑ — 2018: 12,929

Employee engagement
employee net promoter score (on a scale of -100 to 100)
12 — 2018[1]: 3.08

Voluntary turnover rate
as % of total staff
12% ↑ — 2018: 13%

Total Recordable Case Frequency (TRCF)
per 200,000 work hours
0.14 ↓ — 2018: 0.10

Females in total workforce
as % of total staff
32% ↑ — 2018: 31%

Innovation & Growth

Organic revenue growth
net revenues
1% ↑ — 2018: 3%

Organic revenue growth Global Key Clients
net revenues
-2% ↑ — 2018: -3%

Book-to-bill ratio
net revenues
1.01 ↑ — 2018: 0.93

Arcadis Way implementation progress[2]
as % of net revenues
51% ↓ — 2018: 57%

Arcadis' carbon footprint
MT CO_2 per FTE
2.02 ↔ — 2018: 2.02

Focus & Performance

Gross revenues
in € millions
1,390 ↓ — 2018: 1,392

Net revenues
in € millions
1,145 ↑ — 2018: 1,133

Operating EBITA margin
as % of gross revenues
7.6% ↑ — 2018: 6.8%

Net Working Capital
as % of gross revenues
15.8% ↑ — 2018: 16.5%

Days Sales Outstanding
(DSO)
76 ↑ — 2018: 81

1 In prior years a scale of 0 - 4 was used; for the definition and method of measure for the indicator in 2019 see page 277
2 As revenues in countries without Arcadis Way grew faster, the percentage declined, there was no effect from system implementation

Key business developments in 2019

In Continental Europe, private sector demand is strong and government spending on the rise among other things in energy transition. Despite Brexit uncertainties, the UK grew revenues and improved margins across activities. In the Middle East, our selective approach affected revenue growth, but is leading to the targeted margin improvement. Organic growth returned in the last quarter.

Key developments Europe & Middle East

- Organic net revenue growth of 1% included an increase of 3% in Continental Europe and 2% in the UK. In line with our strategy we reduced revenues in the Middle East, resulting in a 10% decrease of organic net revenue growth.
- The operating EBITA margin was 7.6% (2018: 6.8%) where last year was impacted by write downs taken for work in progress (contract assets) in the Middle East.

"Digitalization can now lead to better business insights on the part of clients, which drives their business outcomes. Pairing that to our extensive sector and asset knowledge, as well as our passion to succeed, really sets us apart."

Alan Brookes
Group Executive
responsible for Europe & Middle East

Continental Europe

Market dynamics

Market trends and opportunities that we identified for Continental Europe include:

- Market conditions in infrastructure are strong. We increasingly differentiate ourselves from competitors by using digital technologies, resulting in key project wins. Large projects include railways and stations, metro lines and water related infrastructure projects.
- Despite the uncertainty posed by global (trade war) and regional (Brexit) developments, industrial capex projects continued at pace. Logistics, site expansions and data center development saw good demand.
- Urban dynamics were strong in 2019 around Financial Institution Advisory, Corporate activity and asset optimization, with huge investments around big European cities (Paris, Brussels, Madrid, Milan, Rotterdam and Berlin). Climate resilience and adaptation are also strong drivers.
- Legislation around nitrogen and PFAS is starting to affect new project permits in the Netherlands, which may slow down project management activities. At the same time, we are a strong player in PFAS remediation, and the nitrogen issue is triggering new consulting revenue.
- In environmental activities, demand for strategic environmental consulting was strong as companies seek compliance with increasingly stringent legislation and reporting demands. The remediation market for large projects was favorable as well.
- High speed rail development and the energy transition are expected to be strong drivers going forward and we are well positioned for these markets, with 2019 already bringing some significant wins.

Strategy implementation in Continental Europe

Our strategic focus for Continental Europe remains on accelerating the people and culture pillar of the strategy to become an even more diverse and inclusive company and leverage our brand position to attract and retain the best talent. Investments in design, engineering, and project management capabilities as well as digital and analytics skills will continue, with the latter driving our differentiation vis-à-vis the competition. Increased use of the Global Excellence Centers will further improve our competitive position. In our pursuits, priority will be given to large programs and projects (across the digital transformations with our clients) and large cities.

Developments in 2019

Organic net revenue growth for the year was 3%, and 5% in the fourth quarter. The operating EBITA margin was slightly lower at 8.3% (2018: 8.4%) caused solely by developments in France. The performance in the Netherlands continued to be strong. The nitrogen and PFAS verdicts have a negative impact on the buildings and infrastructure market, although creating also some opportunities for environmental consultancy. Furthermore, the Dutch government plans to invest significantly in sustainable economic transformation, an area in which Arcadis strengthened its capabilities by the acquisition of Over Morgen. The performance of Germany and Belgium remained strong, while in France we continue with improvement measures. Backlog increased by 2%, especially in Germany and France.

Examples of important new project wins and/or projects that were completed during 2019 include:

- In the Netherlands, we are working on the expansion of the Twente Channels for the Dutch water authorities. The expansion creates better accessibility for industry and reduces road freight as transport over water provides a more sustainable alternative. Similarly, we are working on the expansion of the Canal Seine Nord in France.
- In Munich, Germany, we won the assignment to (re)build stations for S-bahn and work on capacity expansion of this urban rail infrastructure system.
- A large 4-year framework contract was won with a large German electricity grid company in which Arcadis will contribute to grid expansion projects.
- In the Netherlands, Arcadis will contribute to the energy transition, as it provides consulting services for the development of biofuel production facility for SkyNRG.
- For Unilever, Arcadis consulted on the completion of its new facility “The Hive”, which combines the European research & development activities for food in one location.
- For Triodos Bank, Arcadis worked on the development of its new circular headquarters in Zeist.

The number of employees in Continental Europe increased to 5,875 (2018: 5752), 37% of whom are female. The number of employees in the Global Excellence Centers/Global Shared Service Center supporting Continental Europe is approximately 5% of the number of employees in this region, and this is expected to continue to increase in the future. Continental Europe had a positive increase in Your Voice survey scores and continues to focus on improving the quality of the working environment and development opportunities for our people.

United Kingdom

Market dynamics

Market trends and opportunities that we identified for the UK include:

- The General election in December 2019 and the return of a majority government has provided some political stability following a year of uncertainty. The UK left the EU in early 2020, although some questions remain around labour supply and just-in-time supply chains. However, the Government has committed to significant investments in infrastructure and public services, particularly in the north of England over the course of the next five years.
- The UK remains a large and attractive market. It is the leading destination for tech investment in Europe with £6bn invested in 2018 .
- Despite uncertainty in the infrastructure sector arising from the High Speed 2 review, output from the UK construction centre remains at historically high levels, driven primarily by ongoing infrastructure works. Infrastructure is forecasted to grow by 7.4% inn 2020 (CPA).
- The achievement of net zero carbon by 2050 has prompted commitments from both the public and private sector. Opportunities arise to facilitate the realisation of these goals.
- The UK has a need to accelerate its housing delivery. This will require new skills in order to apply modern methods of construction and new commercial models.
- The new Government is likely to consider a number of innovative tools and initiatives, including embracing modern methods of construction and providing greater regional devolution to help increase productivity and restore business confidence, with clients likely to require advice on how best to plan for the future.

Strategy implementation in the UK

The digitization of our solutions and the upskilling of our workforce is presenting opportunities to lead the market. Our digital transformation initiative is allowing us to accelerate innovation by transferring successful innovations across the business. We are focused on improving client experience and protecting margins in traditional sectors, and in exploiting opportunities in emerging sectors such as future mobility and climate resilience. Our UK business has been tracking Brexit negotiations closely since before the EU referendum in 2016. Over the last 12 months we created a formal 'Brexit Planning and Readiness Workstream' with dedicated resources. This includes weekly reporting to our leadership team; scenario and contingency planning within the business and for our clients; and ensuring our position is represented at a senior UK Government level and with industry wide groupings. As the UK economic landscape evolves, we will remain focused and agile on the need for good governance, risk sharing and collaboration. As a diversified, resilient business, we are well placed to manage any short-term risks and embrace new opportunities for the UK, both within and outside of the EU.

Developments in 2019

The United Kingdom continued strong organic net revenue growth, with 4% in the quarter and 2% for the year. The operating EBITA margin of our core activities was 8.6% (2018: 8.7%), the overall operating EBITA margin was 8.2% including the costs associated with the start-up of our new digital business Arcadis Gen. Post elections and with clarity about Brexit, conditions for investment have improved. The government commits to a £120 billion, 5-year investment program including economic and social infrastructure in regions where Arcadis has a strong presence. Backlog increased 4% and was particularly strong in the fourth quarter.

Examples of important new project wins and/or projects that were completed during 2019 include:

- Acting as sole advisor to the Department for Transport, looking at key challenges facing Highways England in delivering the £25 billion national Road Investment Strategy. This includes reviewing major projects, recommending best practice operational models and advising on infrastructure investment models, all of which will help to ensure a successful return on public investment.
- Leading the masterplanning process for the creation of a new digitally enabled University and Campus in Milton Keynes, at the heart of the Cambridge-Milton Keynes-Oxford Arc growth corridor. The Masterplan will set the strategy for a three-phase £750 million development, powering a curriculum providing skills for emerging technology industries.
- Appointed to Network Rail's national Project Delivery Services Framework, which is used by all thirteen of Network Rail's routes around the UK. Arcadis won four lots encompassing Building Services, Structural Design, Project Management and Cost Consultancy, with a strong pipeline of work expected over the next three years.
- Working with the Environment Agency (EA) as part of its collaborative four-year, £2.6 billion Client Support Framework; our fifth consecutive framework appointment with the EA. In supporting all aspects of capital investment and improvement works for flood defences nationally across England, it is hoped that up to 300,000 homes will be protected from flooding by 2021.
- Working with the City of Edinburgh Council to support the regeneration of Granton Waterfront, which has the potential to include around 4,000 new homes, a new primary school, healthcare, retail and public spaces. The Council is keen to employ modern methods of construction, including parametric design, and there will be a focus on sustainability, supporting the Council's target to become zero carbon by 2030.
- Awarded a place on the £100 million Homes England Multidisciplinary Framework, which will provide technical services to support the delivery of up to 300,000 new homes a year by the mid-2020s. The services procured through the framework will support the preparation of public sector sites for disposal to developers in order to build much needed new homes. Scaling-up the use of innovative technologies such as precision manufacturing and data analytics will help to accelerate supply and address affordability issues.

Arcadis was named one of the Top 25 Big Companies to work for in the Sunday Times Best Companies 2019. In November, the Financial Times ranked Arcadis as one of the leading companies in Europe for diversity and one of the healthiest workplaces in the UK. A core focus for the UK business has been continuing to build on the strength of our brand, with a focus on enhancing client experience and accelerating innovation in order to meet their needs, and in focussing on Make Every Project Count (MEPC) in order to efficiently and cost effectively service clients.

Digital and technological innovation is presenting opportunities for future growth. For example, our urban planning platform is providing faster decision making and greater certainty in assessing land viability, allowing local authorities to speed up the delivery of housing. We have continued to invest in the training of our people, with high uptake across our employees of Expedition DNA, our employee wide training on digital and innovation processes.

The number of employees in the UK increased to 4,270 (2018: 4,151), 29% of whom are female, while the number of employees in the Global Excellence Centers/Global Shared Service Center supporting the UK business stands at 668. With the potential impact on long-term labor availability post Brexit, the GEC capability continues to boost the UK business and has already led to the adoption of new technologies and efficiency gains.

https://technation.io

Middle East

Market dynamics

2019 has been a relatively slow year economically for the Middle East. This was partly a result of muted oil prices and continued limits on oil production, requiring fiscal restraint in several countries. In addition, various cyclical factors including regional geopolitical issues and an oversupply of real estate have contributed to continued deflation in much of the region. This was particularly evident in the retail market, Sheikh Mohammed bin Rashid, PM and Ruler of Dubai, openly stated that real estate projects in Dubai need to control their pace and bring added value so as not to become a burden on the economy.

Looking beyond the current indicators, significant groundwork is being laid down in markets and legislation that should drive future growth. In Saudi Arabia in particular, where there has been major reform, there are key changes in the landscape for foreign investment and public-private partnerships (PPP). There is a broad trend of reforms across the region, in both the oil exporting and importing countries, to modernize legislation and enhance the business environment.

Looking ahead, it is notable the region will host major global events: the Expo in Dubai, the G20 summit in Saudi Arabia and the football World Cup in Qatar in 2022. These events and the country-specific visions continue to fuel the economy and create more business development opportunities in the region. Expo, for example, is expected to have a significant economic impact for Dubai and is forecast to become the second most visited city in the world in 2020. Although the G20 is a much smaller scale event, it will play a similar role in terms of profile and showcasing some of the social and economic reform changes that have been underway in recent years and potentially catalyzing future investment.

The ‘initial public offering’ of Saudi Aramco is a key pillar of Prince Mohammad Bin Salman’s Vision 2030 plan to change the social and economic fabric of the kingdom and, as mentioned above, attract foreign investment. Proceeds from Aramco’s IPO, making it the world’s most valuable firm, will be transferred to the country’s Public Investment Fund, a body responsible for developing Saudi Arabia.

Strategy implementation in the Middle East

The Middle East business continues to drive the strategy that was updated in 2018. The strategy creates a sustainable business and aims to drive improved long-term value by focusing on core sectors, key clients and geographies.

In addition, the continuation of the Making Every Project Count priority, and the review of our key clients, and has ensured we have significantly reduced the number of loss-making projects, improved the underlying performance and consequently become a higher margin business. In addition, the Middle East is growing by focusing and investing on higher margin services where Arcadis can leverage from global capabilities such as Advisory, Asset Management and Operations & Maintenance.

Developments in 2019

Our increased selectivity led to lower organic net revenues in the Middle East of -10% in the year, but for the first-time since the strategic re-orientation in 2018 we saw organic revenue growth in the fourth quarter. The operating EBITA margin increased to 7.1% (2018: -2.5%). The backlog declined year-over-year with 9%.

Despite the challenging economic market in 2019, the region met its business targets for the year and is strongly set up for growth in 2020. Our digital transformation is progressing well, and on many levels Arcadis Middle East are leading in terms of digitalizing our solutions to clients e.g. such as the introduction of RPA (Robotic Process Automation) in to Cost Management services to our clients and the creation of a digital Program Management Organization on giga developments in Saudi Arabia.

The implementation of the strategy in Saudi Arabia has successfully strengthened our brand name in the market, which has yielded higher business margins in 2019, whilst prioritizing our client portfolio in order to position for further growth in 2020.

The People & Culture strategy has developed well in 2019, with the launch of People First related programs such as Mentoring, Diversity & Inclusion and Wellbeing. The People Strategy has supported the increased engagement score and the reduction in employee turnover, down from 14.4% to 12.8% in 2019. The number of employees in the Middle East in 2019 was 1,136 (2018: 1,316), of whom 24% are females. The Middle East is supported by 332 people in the Global Excellence Centers/Global Shared Service Center.

Segment financial results

The overall financial results of the Segment in 2019, based on IAS 17, were as follows:

	Revenues		Revenue growth			
In € millions	2019	2018	Total	Organic	Acquisitions	Currency
Gross revenues	1,390	1,392	0%	-2%	1%	1%
Net revenues	1,145	1,133	1%	1%	0%	0%

	2019	2018
EBITA	84.7	68.4
EBITA margin	7.4%	6.0%
Operating EBITA[1]	87.0	77.4
Operating EBITA margin	7.6%	6.8%

1 Operating EBITA excludes acquisitions, restructuring, and integration-related costs

For the segment financial results of 2019 based on IFRS16 see page 274.

City Council Stuttgart
Germany

Award-winning inner-city revitalization

The urban redevelopment project on former property of the decommissioned ‘Olga-Hospital’ west of Stuttgart’s city center will create a sustainable and socially divers environment for citizens and residents.

Relevant SDGs:

Challenge

Deconstruction of existing buildings and preparation of a 11,600 m² inner city property for redevelopment poses challenges due to the sensitive, densely populated urban environment. Residents, building structures and infrastructure needed to be protected properly.

Solution

Arcadis planned, supervised and monitored building decontamination, deconstruction and disposal, groundwater management, structural protection of adjacent buildings, explosive ordnance removal as well as dust and noise emissions – keeping ‘people first’ in mind at all times.

Impact

Our effort for clean and punctual site preparation contributed to widespread acclaim: The conversion of former ‘Olga-Hospital’ was awarded with the prestigious ‘Polis-Award’ in the category ‘Urban Redevelopment’. With inner-city space increasingly at a premium, this project demonstrates that urban redevelopment, if well-managed, can add a lot of value.

Water Authorities Ingolstadt
'Donaumoos' near Ingolstadt in Bavaria, Germany

Stop draining the swamp!

Excessive draining led to large scale settlements, reduction of biodiversity as well as CO_2-emissions in the largest low-level moor region in southern Germany. Sustainable water management is paramount for future development and protection - Arcadis provides the digital basis.

Relevant SDGs:

6 CLEAN WATER AND SANITATION
13 CLIMATE ACTION
15 LIFE ON LAND

Challenge

Moor regions accumulate twice as much CO_2 as all forests in the world. Draining them for urbanization and agriculture boosts global warming. Above that, they reduce flood risks by buffering rainwater like sponges. How do we balance climate and flood protection with stakeholder interests of local farmers and residents?

Solution

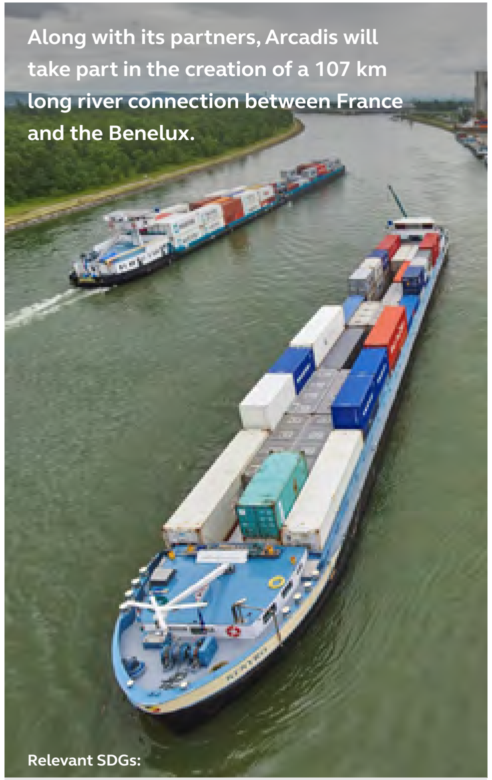
Arcadis worked on preparing the interdisciplinary groundwork for sustainable water management in a dynamic, sensitive and complex environment: monitoring, modeling, analyzing, and visualizing groundwater dynamics, rainfall, floodwater and hydrodynamics.

Impact

Triple-win: Nature conservation, flood protection and a significant contribution to climate protection by reduction of greenhouse gas emissions.

Société du Canal Seine-Nord Europe
France, Belgium and the Netherlands

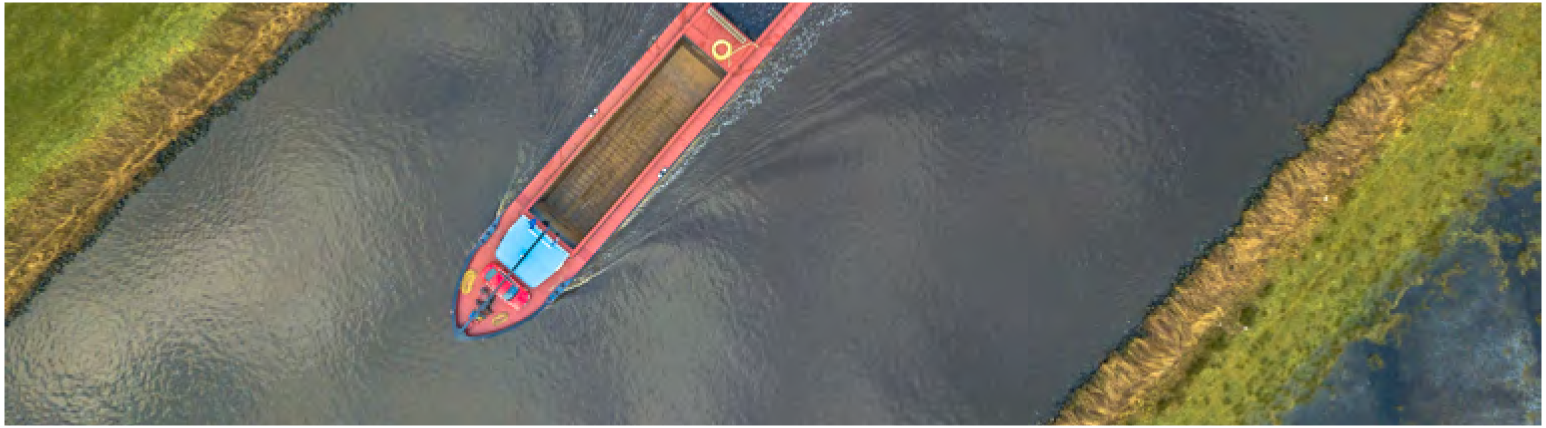
One of the largest infrastructure projects in Europe



Along with its partners, Arcadis will take part in the creation of a 107 km long river connection between France and the Benelux.

Relevant SDGs:

6 CLEAN WATER AND SANITATION
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
13 CLIMATE ACTION



Challenge

The Seine-Northern Europe Canal is the south link in the European Seine-Escaut project which aims to create a 1100 km long river network in Europe. It includes the creation of a large-scale waterway for barges up to 4,400 tones between France, Belgium and the Netherlands, thus connecting the Seine to the Scheldt. Arcadis leverages its international expertise to assist the client in such a complex project that has an impact across national borders and generations and shifts transportation from roads to water, which is better for the environment.

Solution

Given the size and complexity of the project, the design and project management are subdivided into 4 sections. Arcadis is responsible for the design and project management of section 1 along with the Team'O+ group and is the lead company of the consortium responsible for the design and studies of the section 3, composed of Sweco and Explorations Architecture. Designs take into account the environmental and social impacts of the project.

Impact

This project is of great economic importance for Europe. It will give a powerful boost to inland navigation between Northern Europe and the Paris Basin. The Seine-Northern Europe Canal is a large-scale project for France and Europe, the completion of which is a major environmental achievement that contributes to achieving the energy transition objectives promoted by COP21 in Paris. On European roads, the equivalent of 15 to 20% of the road transport on the Amsterdam-Paris axis will disappear.

Royal Horticultural Society (RHS)
Salford, Greater Manchester, UK

Largest new garden in Europe

The Royal Horticultural Society (RHS) is realizing its new RHS Garden in 17 years and the fifth RHS garden in the UK. The £30 million RHS Garden Bridgewater will bring a truly world-class garden within easy reach of audiences in the North West, becoming a major tourist attraction for the region. The largest gardening project in Europe RHS Bridgewater will see a stunning new 154-acre garden open to the public in 2020.

Relevant SDGs:

Challenge

The first phase includes the restoration of the 11-acre Weston Walled Garden and several further gardens are planned, as well as a new Welcome Building which will feature an events space, learning space, offices, café, shop and plant center. RHS has built a commitment to sustainability into the construction of the new garden. The RHS has also placed a large emphasis on providing wider social and economic benefits to the community.

www. rhs.org.uk

Solution

Arcadis has been managing the construction of the new garden on behalf of RHS, ensuring the RHS' core values of sustainability and social value are at the heart of the construction process. The Welcome Building will collect rainwater to supply the buildings' toilets, a borehole aquifer will irrigate the walled garden, a ground source heat pump will provide energy for underfloor heating and a biomass boiler will heat the garden glasshouses. Arcadis' skills across placemaking, construction and management of natural and environmental assets have been essential in bringing together a diverse team across a range of disciplines.

Impact

The garden will create more than 140 jobs by 2029, as well as apprenticeships, partnerships with local schools, colleges and universities, community gardening projects and opportunities for community volunteers to develop a wide range of skills. Further benefits for the local economy have come from Arcadis' commitment to employing local consultants and contractors on the project. This long-term project will keep on developing over the next ten years and many more benefits are expected to be unlocked throughout its creation.

Atlantis the Palm 2 Ltd (part of the Investment Corporation of Dubai, ICD)
Dubai, United Arab Emirates

Robotic Process Automation in action

The Royal Atlantis Resort & Residence plans to open its doors to the public later this year to become a new iconic destination for residents and tourists in Dubai. This massive luxury project of 360,000m² will have 795 hotel rooms and 231 residential units with spectacular water fountain shows & features, signature restaurants, spa and conference facilities.

Challenge

There are very detailed and technical monthly reports required for the client and various project stakeholders about the costs of building a large-scale project such as the Royal Atlantis Resort & Residence. This reporting is mandatory and requires a lot of detail for numerous packages as well as the integration with the client's cost management software, the variation workflow process, and the contractor's reporting of the costs. Arcadis, as cost consultants on the project, with the client wanted to identify a solution to ensure the senior cost consultants on the job were focused on important services and deliverables, such as agreeing variations, while providing the necessary reports without utilizing a majority of their time.

Solution

Arcadis identified that a large amount of time was used taking data from many different sources, checking and verifying, and collating into an excel document format that would produce the data in line with the client's costing structure requirements. Robotic Process Automation (RPA) was created, introduced and identified as a potential strong digital solution for the client and future cost projects. The robot was programmed to complete three detailed processes including collecting data from several different locations, checking, re-organizing and collating in a final summary and even putting the final produced tables into a word report.

Impact

What could take up to 7 working days of a senior consultant to complete was now taking 2 hours via the robot. The time saved has been re-deployed in agreeing variations as desired by the client. 80% of the manual work involved can be done by the robot.

As the project becomes more complex, the administrative input of our resource in production of the cost report has been made more efficient by the implementation of RPA achieving a win-win scenario for Arcadis and our client. This project has proven the abilities of RPA but only scratched the surface of its overall capability which could assist on major projects and programs in the future.

Performance by segment: Americas

Number of employees

headcount as at 31 December

7,667

2018: 7,205

% of net revenues

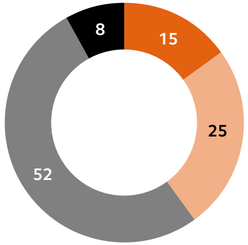
of total Arcadis

33%

2018: 31%

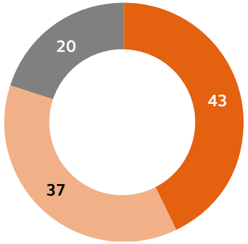
Clients

Georgia DOT, US Air Force, USACE, Hurontario, Alaska Native Health Corp., Norsk Hydro, Vale, Anglo American



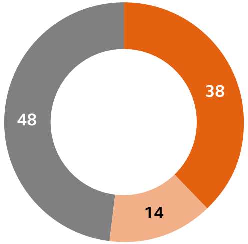
Expertise in %

- Infrastructure
- Water
- Environment
- Buildings



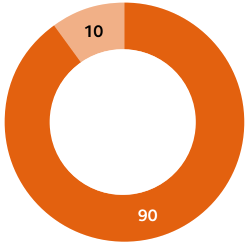
Services in %

- Consultancy
- Design & engineering
- Program, project & cost management
- Architectural design



Clients in %

- Public
- Regulated
- Private industrial



Segments in %

- North America
- Latin America

Performance by Segment

Performance in 2019

People & Culture

Indicator	2019	2018
Number of employees headcount as at 31 December	7,667 ↑	7,205
Employee engagement employee net promoter score	28	2018[1]: 3.15
Voluntary turnover rate as % of total staff	9% ↑	10%
Total Recordable Case Frequency (TRCF) per 200,000 work hours	0.25 ↑	0.44
Females in total workforce as % of total staff	37% ↑	36%

Innovation & Growth

Indicator	2019	2018
Organic revenue growth net revenues	9% ↑	5%
Organic revenue growth Global Key Clients net revenues	11% ↓	14%
Book-to-bill ratio net revenues	1.03 ↓	1.05
Arcadis Way implementation progress as % of net revenues	91% ↑	to start
Arcadis' carbon footprint MT CO_2 per FTE	4.22 ↑	4.91

Focus & Performance

Indicator	2019	2018
Gross revenues in € millions	1,394 ↑	1,186
Net revenues in € millions	860 ↑	755
Operating EBITA margin as % of gross revenues	8.2% ↑	7.3%
Net Working Capital as % of gross revenues	16.2% ↓	13.2%
Days Sales Outstanding (DSO)	97 ↓	78

[1] In prior years a scale of 0 - 4 was used; for the definition and method of measure for the indicator in 2019 see page 277

Key business developments in 2019

Our North America business maintained strong momentum and focus in 2019 to deliver robust organic growth, record bookings and continued margin improvement. All market sectors in North America demonstrated growth, with the environment market in both North and Latin America being very strong. In Latin America, the Brazil economy showed modest growth and more stability. Chile meanwhile was negatively impacted late in the year by political protests.

Key developments Americas

- Organic net revenue growth was 9% for the year. Strong organic growth in North America was supported by double digit organic growth in Latin America.
- The operating EBITA margin increased to 8.2% (2018: 7.3%), due to performance improvements in both North and Latin America.

“The Americas segment has again delivered strong financial results in 2019. This success is the direct result of the dedicated Arcadians who deliver high quality and innovative solutions to our clients. Our inclusive approach to co-creating outcomes with our clients and teammates sets us apart.”

Mary Ann Hopkins
Group Executive
responsible for Americas

North America

Market dynamics

Market trends and opportunities that we identified for North America include:

- The overall economy remains robust and supports continued growth of our business across our private and public sector markets, although concern over trade wars and the 2020 election weighs on clients
- Clients continue to face mounting challenges to harness the value of massive data streams and transform their businesses in a digital world
- The effects of climate change are becoming more pronounced with more frequent damaging floods, forest fires, tornados and hurricanes, and droughts impacting our people, clients, and communities
- Cities are facing more extreme mobility challenges as population densities intensify in urban area
- The greying of the workforce and war on talent is creating critical staff shortages in some of our markets

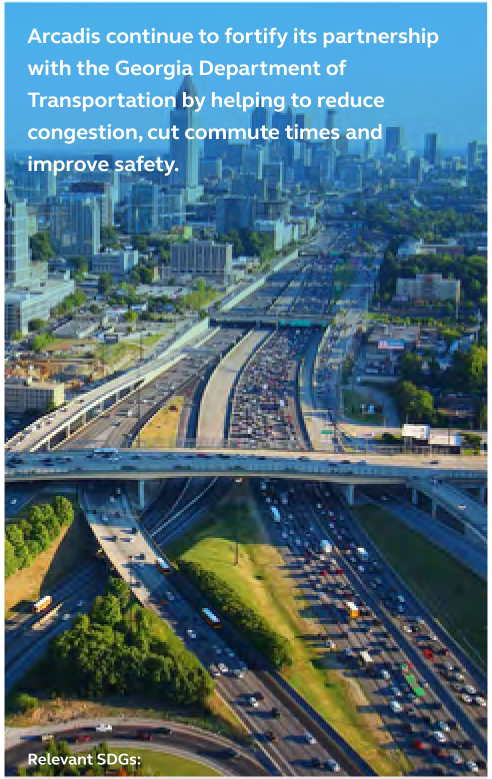
Strategy implementation in North America

While implementing the corporate strategy, North America successfully focused on growing the volume of our business while also improving profitability across our environment, infrastructure, and water markets. Concurrent to achieving strong financial results, we also invested in several key strategic programs for long-term performance;

- **People Experience** – Recognizing our people are our most vital resource, North America continued to invest in recruiting, developing, and retaining the best talent in the industry. We are proud of our low voluntary turnover rate at 9.4%, which is significantly below industry benchmarks.
- **Client Experience** – A major initiative was launched during 2019 and serves as a key pillar for our 3-year business transformation, to create a distinctive, memorable and delightful experience for our clients that will serve as a powerful and lasting competitive advantage. This will transform the way we engage and serve clients, in a more empathetic and collaborative manner, and will become the foundation of our culture.
- **Digital** – North America has made significant progress both in terms of digital mindset and technology shifts within the context of improving the people and client experience. A major initiative to expand our skills in design thinking was undertaken to change our client engagement model and introduce digital solutions. We trained 36 facilitators, completed 20 design thinking sessions with our key clients, and reached over 500 employees in using design thinking as part of the Arcadis Way of working.
- **Technical Knowledge and Innovation (TKI)** – Our unique TKI platform drives collaboration among our business lines, helping achieve greater impact from the coordinated creativity of our people and clients. In 2019 we created an open innovation platform called "Quick Launch" that has inspired over 200 ideas and is being rolled out globally.
- **Global Excellence Centers (GECs)** – Engagement of GECs by North America significantly increased in 2019 due to a 'One Team' approach whereby key client account teams visited GECs and aligned on the most effective delivery model using GEC resources. This has enabled enhanced value to clients through schedule and cost savings and significantly increased project profitability.
- **Arcadis Way** – Following a yearlong planning and training program, we fully launched our Oracle cloud-based Enterprise Resource Planning system that connects our North America business with our worldwide businesses enabling easy access to our global resources to bring the best of Arcadis to our clients.
- **Health and safety** – We implemented two key elements of our Health and Safety improvement strategy involving better use of digital tools to drive better performance. We began implementation of telematics on Arcadis vehicles, a proven method to improve driver safety while reducing vehicle maintenance costs and associated carbon emissions. In addition, we implemented a new system and mobile app for goal setting to increase focus on more activities that contribute to safety and wellness of our employees and their families. Through these efforts we reduced our recordable incident rate in 2019.

Georgia Department of Transportation
Georgia, USA

Preparing Georgia for autonomous and safer transportation



Arcadis continue to fortify its partnership with the Georgia Department of Transportation by helping to reduce congestion, cut commute times and improve safety.

Relevant SDGs:

Challenge
After two decades of population growth, GDOT continues to face challenges accommodating additional drivers on the roads. Tasked with ensuring efficient, safe transportation for the state's residents, GDOT is working with Arcadis to implement new-age technologies that better inform its operations.

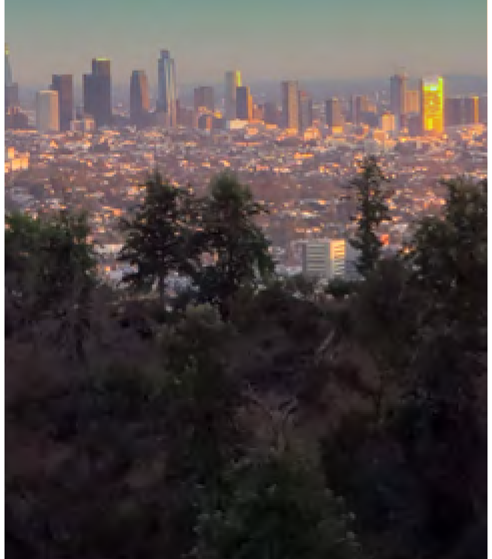
Solution
Arcadis will continue its work helping deliver the agency's Regional Traffic Operations Program (RTOP) and Maintenance, Engineering and Inspection (MEI) program. This includes implementing advanced detection technologies, control strategies and communication architecture to optimize traffic flow as part of RTOP and help with statewide longline striping, guardrail strike collection and overall maintenance innovation through digital solutions as part of MEI.

Impact
Through the application of innovative solutions and best practices, GDOT continues to advance its transportation system infrastructure to support an autonomous and connected future. With more information available and quicker decision-making enabled, GDOT will be able to address the state's most pressing congestion needs and provide Georgians with safer, more efficient roadways.

City of Los Angeles
Los Angeles, USA

Connecting a community to its river and protecting local waterways

Arcadis worked to connect the Lincoln Heights community of Los Angeles to the Los Angeles River by serving as construction manager on the new Albion Riverside Park.



Relevant SDGs:

Challenge

In 2004, Los Angeles voters approved Proposition O. The legislation authorized the city to issue bonds for up to $500 million worth of projects that prevent and remove pollutants from Los Angeles' regional waterways and ocean. As part of the proposition, Arcadis was tasked with transforming a 10-acre project site in the Lincoln Heights community.

Solution

With the primary goal of protecting local water ways and the ocean, Arcadis implemented sustainable practices such as Low Impact Development and Green Infrastructure measures to improve stormwater quality before it is discharged into the Los Angeles River and ultimately, the Pacific Ocean. In addition to collecting, treating and infiltrating onsite runoff, the city now diverts stormwater and dry weather flows from an existing storm drain which can be used within the park.

Impact

In addition to leveraging the power of green infrastructure to protect the Los Angeles River, the parks recreational features connect the community to a cleaner and more useful space. Recreational features include multi-purpose athletic fields, walking paths, adult fitness zones, a children's play area, a picnic area and a new parking lot with permeable paving, landscaping and plaza areas.

www.arcadis.com

Kiewit and PERC Water
Santa Monica, USA

Water self-sufficiency for a thriving seaside community

Arcadis partnered with Kiewit Infrastructure West and PERC Water to provide progressive design-build services for the City of Santa Monica's Sustainable Water Infrastructure Project.

Relevant SDGs:

Challenge

The City of Santa Monica partially relies on imported water to meet its water needs. The city needed a number of energy, infrastructure and technology improvements to better control and manage its own water resources in a state where water scarcity is always top-of-mind.

Solution

In partnership with Kiewit and PERC Water, Arcadis will help implement the city's Sustainable Water Infrastructure Project. This implementation includes helping innovate the city's treatment and reuse of brackish groundwater, wastewater and stormwater runoff. Together with energy, infrastructure and technology implementations, the city will have better capacity to treat and distribute its own water.

Impact

In addition to water independence, this project will also deliver a number of environmental benefits to the Santa Monica community. The implementations and water self-sufficiency will help Santa Monica improve beach water quality in the Santa Monica Bay, reduce energy use and greenhouse gas emissions from transportation, conserve approximately 550 million gallons of water and recycle up to one million gallons per day of wastewater for reuse.

www.arcadis.com

North America

Developments in 2019

North America maintained it's recent strong performance in 2019 with continued growth in revenue and earnings over 2018. After 6% growth in 2018, net revenues increased organically by 8% in 2019. The higher revenues were achieved in our Environment, Water and Infrastructure markets. The operating EBITA margin improved further to 9.2% (2018: 8.8%), while absorbing additional cost related to the Oracle implementation. The voluntary turn-over rate further improved to 9.4% (2018: 9.9%). The market in North America remains strong with many opportunities, which is reflected in a backlog growth of 5% and a strong pipeline. Net working capital deteriorated due to an increase in Days Sales Outstanding (DSO) as a result of implementing a new ERP.

Examples of important new program/project wins during 2019 that illustrate the depth and diversity include:

- Arcadis was re-selected by the Georgia Department of Transportation (GDOT) to manage their Regional Traffic Improvement Program for the Atlanta metropolitan area. Under this five-year contract, Arcadis will manage traffic control along Atlanta's most congested corridors
- Arcadis was selected by an Alaska Native Health Corporation to provide program management services for a $308 million hospital campus expansion program to deliver improved healthcare services serving twelve neighboring communities.
- Through collaboration with Arcadis transportation experts in the United States and Europe, our Canadian business was selected, as part of a partnership, for the Hurontario light rail transit project in Ontario, Canada. Arcadis will provide track design, program management, environmental restoration services, and environmental permitting and planning services.
- Arcadis was selected by a US-based global banking firm for an $18M contract to support their environmental, health and safety programs worldwide.
- Arcadis has partnered with the US Air Force in a technology demonstration for the advancement of PFAS technologies. Based on the success of this demonstration, Arcadis was awarded a pilot project for PFAS surface water/sediment remediation project at Ellsworth AFB in South Dakota to advance the technology application and demonstrate its effectiveness including flocculation, mechanical suspension of sediments, extraction, filtration and subsequent stabilization of pond sediments.
- We were awarded a large construction management services program for the East Bay Region in Northern California.
- The US Army Corps of Engineers New Orleans District selected Arcadis for a $15M contract to provide A/E design services primarily for civil works projects in the New Orleans District as well as in the Mississippi Valley Division. The contract may also be used worldwide for civil works projects.

The number of employees in North America increased 6% to 5,702 (2018: 5,397), 34.1% of whom are female. North America is supported by 339 employees in the Global Excellence Centers/Global Shared Service Center, a number that will continue to grow to improve competitiveness.

Latin America

Market dynamics

Market trends and opportunities that we identified for Latin America include:

- Macro-economic indicators started to improve in Brazil as a result of important reforms, successful privatization auctions and improved confidence. Overall loosening fiscal monetary policies are expected to contribute to continued growth across the region. Political tensions in Chile and Peru warrant continuous monitoring.
- Private and foreign capital continue to respond to concessions, PPPs, and M&A in Brazil as a result of improved macro conditions and overall significant infrastructure gap.
- Mining has generated significant growth across the region with larger contributions from Brazil. Trade tensions between US and China have resulted in slower activity in Chile. Improved activity from energy, water and transportation bringing overall portfolio diversification.

Strategy implementation in Latin America

The strategy in Latin America is starting to pay off, with significant organic growth and overall portfolio diversification and greater contribution from private clients. As a result of greater collaboration and our reshaped client and sector portfolio the region obtained a profitable operating result with improved project performance and overall engagement across all core business areas. A more balanced private & public share of revenues is also contributing to better performance and a reduced number of legacy and loss-making contracts. Our market sector focus includes Industry, Mining, Transport and Logistics, Water and Power where we see the best alignment of capabilities and growth prospects. As a result of our remediation leading expertise in the region we are now serving a wider base of clients with operations in various other countries in the region. BIM and innovative digital solutions are becoming a differentiator to winning work in the region. Close to 10% of our net revenues are already delivered in BIM platforms. The new management structure continues to contribute to a more nimble, efficient and collaborative organization with key new talents joining the company in 2019.

Developments in 2019

Performance in Latin America was significantly improved over 2018. Net organic growth of 16% was achieved and driven by Brazil with excellent performance in Environment and a turnaround in our Infrastructure business. The operating EBITA margin rebounded to positive territory with 5.3% (2018: -1.8%). Our measures to improve DSO resulted in an overall reduction of DSO of 21 days.

Examples of important new project wins and/or projects that were completed during 2019 include:

- Project management support for major projects portfolio of expansion and maintenance projects for Norwegian based Norsk Hydro ASA Bauxite-Alumina plant in Brazil;
- Contract Management and Technical Supervision services for the airport terminal expansion of Aruba´s Queen Beatrix International Airport;
- Highway Environmental Management System for the State of Rio Grande do Sul in Brazil, including guidelines for standardization and improvement of social and environmental management along the State´s highways.
- Conceptual design for a large desalination facility in Brazil -support to a PPP bid to na European Player.
- Master Planning for 19 municipalities along the State Grid owned transmission lines, including integrated urban and environmental planning with leading edge territorial solutions. Project delivered with the support of Arcadis GEC in Romania.
- Design and Field support (a joint effort of Arcadis Chile and Peru) for the Quellaveco Mine in Peru for Anglo American, one of the largest capex investments in the region.
- Environmental impact Assessments for the Andina division of Codelco (Chile), the largest copper producers in the Country.
- Pre-feasibility and Feasibility Studies for the tailings dam of the Nueva Union Mine – Teck & Newmont Goldcorp copper, gold and molybdenum JV in Chile.
- Water Quality Monitoring Program for Vale in Brazil. The services encompassed the setup, collection and management of a large quantity of data made available to the client through a series of dashboards and interactive data management digital platforms.
- Several socio-environmental and technical due diligences for global Private Equity and Infrastructure Funds for M&A transactions in several sectors including power, toll roads, airports, logistics.
- Several Strategic Environmental Services for Global Multinationals across the regions.

The number of employees in Latin America increased in 2019 to 1,621 (2018: 1,413), while 39% of the employees are female and 30% of our leadership team is women. We have also started affinity programs for diversity & inclusion. The region is making increased use of employees in the Global Excellence Centers through a growing number of projects in design & engineering and Environment in Brazil and Chile. The turnover ratio for the region continues to be one of the lowest in the Company.

Segment financial results

The overall financial results of the Segment in 2019, based on IAS 17, were as follows:

	Revenues		Revenue growth			
In € millions	2019	2018	Total	Organic	Acquisitions	Currency
Gross revenues	1,394	1,186	18%	13%	0%	5%
Net revenues	860	755	14%	9%	0%	5%

	2019	2018
EBITA	56.2	51.7
EBITA margin	6.5%	6.8%
Operating EBITA[1]	70.5	54.9
Operating EBITA margin	8.2%	7.3%

[1] Operating EBITA excludes acquisitions, restructuring, and integration-related costs

For the segment financial results of 2019 based on IFRS16 see page 274.

Responsible highway development in Brazil

DAER/RS (Highway Authority)
Brazil

Recognizing the importance of environmental quality, and society's awareness of the importance of environmental preservation and sustainable development, the DAER/RS (Autonomous Department of Highways) identified the necessity to systemically manage the environmental risks and impacts of its highways during the project implementation and operation.

Relevant SDGs:

- 9 Industry, innovation and infrastructure
- 11 Sustainable cities and communities
- 13 Climate action

Challenge

DAER/RS identified the main environmental difficulties and problems in the highway network to propose guidelines and institutionalize the environmental management standards. The DAER/RS is a state authority, responsible for the highway network management of the Rio Grande do Sul State. The authority manages approximately 10,625 km of highways.

Solution

Arcadis, in partnership with DAER/RS, assisted in the diagnostic of the existing processes and the day-by-day problems of highway environmental management.

Accordingly, based on ISO 14001 requirements and client needs, the DAER/RS's Environmental Management System – EMS was created.

The establishment of the EMS guidelines seeks to promote the public investments sustainability, contribute to the efficient implementation of public policies aimed at improving local and regional environmental protection, reduction of environmental impacts, decreases of natural resource consumption, among other government commitments. Through training, knowledge of the system was spread to DAER/RS employees and its contractors.

With this work, DAER/RS became a reference in environmental management systems in the road sector.

Impact

Knowing the environmental impacts of its operations, the standardization of the process and the establishment of controls helps DAER/RS decrease the socioenvironmental impacts of its activities. As a result, it expects a decrease in the number of environmental notifications, an improvement of the relationship with the communities, and of environmental inspection mechanisms. In addition, the management of the legal requirements will become more systematic with better control of the environmental licenses and requirements. Finally, it will improve in internal hiring processes and inclusion; decrease electrical energy use, water use and other natural resource consumption in DAER/RS projects and its network.

Vale
Brazil

Surface water data management and sediment monitoring

After the break of a mine tailings dam, Arcadis in Brazil was chosen to support a big challenge from one of major clients: the need to measure, monitor, manage and report data related to the event, supporting the development of an action plan for the recovery of the affected area.

Relevant SDGs:

6 CLEAN WATER AND SANITATION

15 LIFE ON LAND

Challenge

Some of the challenges included providing better, and faster, decision-making capabilities: designing a basin restoration plan, advising the implementation of programs focused on the social and environmental recovery of the area; gathering, monitoring and reporting data received from different stakeholders – including data related to the fauna rescue activities enabling client to implement a fast action plan.

Solution

Through strong collaboration between Arcadis' technical, digital and Global Excellence Center teams, an action plan was designed. Supported by a digital strategy and a technical toolkit, we have implemented standardized and automated processes, guaranteeing quality assurance and control to monitor construction services and water and sediment quality. Creating a consistent way of reporting whilst also ensuring all data could be compared and benchmarked helped create confidence with the client, allowing data driven and fast decision making. Real time visualization through customized dashboards allowed the client to follow progress and data utilization capabilities through advanced analytics tools supported assertive data management. This led to positive outcomes for the client resulting in an improved client experience and a clear indication of how embracing digitalizing solutions can impact all attributes. Arcadis is long term partner of Vale in Brazil, having also supported the client on developments in Africa, Middle East and Asia.

Impact

By developing and implementing digital tools to enhance the interaction between all stakeholders, we´ve used over 4.5 million records, available in a structured database, resulting in visual, interactive and always available dashboards. Such accurate data speeds up all processes, allowing fast decision making related to recovery plans.

Being able to rapidly react, develop and implement a recovery plan is key. By providing the client with accurate data and real time project progress reports, Arcadis is helping in such challenge. The project is also directly related to the water security of the basin, benefiting over 2.5 million people in 48 municipalities.

Xingu Rio Transmissora de Energia S.A. (XRTE)
Brazil

Master planning energy transmission

The regional company responsible for the electricity grid wants to ensure that its network master plans improve the quality of life for all the habitants within reach of its network. Thus, the general objective is to promote the territorial ordering of each municipality, which generates sustainable growth of each city in order to enable its full potential, including social, economic, environmental and cultural development.

Relevant SDGs:

Challenge

Spread throughout Brazil, the master plans for 19 cities across the XRTE energy transmission system needed to be reviewed and evaluated. The XRTE system is 2,540km long and extends into 5 different states. The population of the cities under review ranged from 3,000 to 50,000 habitants. The challenge was to engage the city authorities and their citizens to understand the master plan as the most important tool for the planning and development of the municipalities and to integrate the urban and rural areas with sustainability.

Solution

A nine-step methodology was developed in order to accomplish with the tight schedule and the lack of data:

1. Articulation Campaign with municipalities
2. Preparation of the Stakeholder Matrix
3. Municipal Diagnosis
4. Public hearings and workshops
5. Integrated analysis of the municipality, including:
   a) Parametric modelling with support of GEC Romenia
   b) Infrastructure capacity indicator
6. Principles and Guidelines for the master plan
7. Proposal of zoning and public policies
8. Public hearings and workshops
9. Preparation of the draft law

Impact

A total of 250,000 habitants of the 19 municipalities were impacted throughout the whole project, as their city will have a new legislation regarding land use and public policies. The land use legislation was drafted with the intention of allocating correct use to the local fragilities of the physical environment, both in the urban area (such as industrial and residential areas) and in the rural area (rural villages and agricultural properties), to make the integration sustainable. Public policies were developed aligned with the SDG-2030, within diverse sectors, understanding the strengths and weaknesses of the municipalities, such as: sustainable rural development, urban economic development, housing, basic sanitation, urban mobility, health, education, public security, environment, and social security.

Performance by Segment
Asia Pacific

Number of employees
headcount as at 31 December

5,386

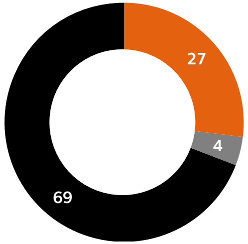
2018: 5,467

% of net revenues
of total Arcadis

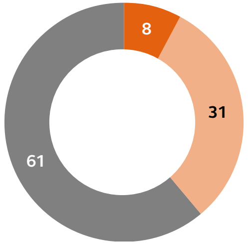
14%

2018: 14%

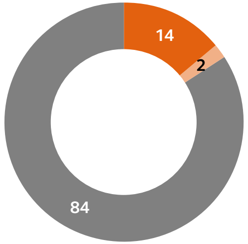
Clients
Hong Kong Rail, Jewel Changi Airport, Western Sydney International Airport, City of Sydney



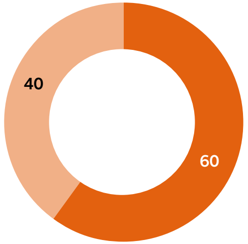
Expertise in %
- Infrastructure
- Water
- Environment
- Buildings



Services in %
- Consultancy
- Design & engineering
- Program, project & cost management
- Architectural design



Clients in %
- Public
- Regulated
- Private industrial



Segments in %
- Asia
- Australia Pacific

Performance by Segment

Performance in 2019

People & Culture

Indicator	Measure	2019	2018
Number of employees	headcount as at 31 December	5,386 ↓	5,467
Employee engagement	employee net promoter score (on a scale of -100 to 100)	28	2018[1]: 3.06
Voluntary turnover rate	as % of total staff	21% ↑	27%
Total Recordable Case Frequency (TRCF)	per 200,000 work hours	0.20 ↓	0.13
Females in total workforce	as % of total staff	48% ↔	48%

Innovation & Growth

Indicator	Measure	2019	2018
Organic revenue growth	net revenues	3% ↑	2%
Organic revenue growth Global Key Clients	net revenues	14% ↓	69%
Book-to-bill ratio	net revenues	0.93 ↓	0.94
Arcadis Way implementation progress	as % of net revenues	78% ↑	72%
Arcadis' carbon footprint	MT CO_2 per FTE	1.38 ↑	1.64

Focus & Performance

Indicator	Measure	2019	2018
Gross revenues	in € millions	388 ↑	375
Net revenues	in € millions	350 ↑	331
Operating EBITA margin	as % of gross revenues	10.0% ↑	7.7%
Net Working Capital	as % of gross revenues	22.1% ↓	21.8%
Days Sales Outstanding	(DSO)	88 ↑	89

[1] In prior years a scale of 0 - 4 was used; for the definition and method of measure for the indicator in 2019 see page 277

Key business developments in 2019

Our Asia business grew organically for the first time in 4 years, despite the divestment of several businesses, the civil unrest in Hong Kong and impacts of the US/China trade war. This was mainly due to enhanced focus on key clients and markets, resulting in good growth in China East, Greater Bay Area and the Philippines. In Australia Pacific we continue to benefit from a strong infrastructure pipeline driven by investment and growth in major cities, and the Federal Government seeking to stimulate a sluggish economy by investing in infrastructure.

Key developments Asia Pacific

- Asia Pacific increased gross revenues in 2019 to €388 million, organically growing net revenue by 3%. Australia Pacific maintained its strong performance by growing organically 7%, whilst Asia reached a turning point by successfully establishing a foundation for future growth, contributing a 1% increase in revenues.
- Operating EBITA margin significantly improved to 10.0% (2018: 7.7%) as a result of actions to stabilize the business in Asia and continuing the momentum of the best in class performance in Australia Pacific.
- In the second half of 2019 an exclusive agreement with EVOCRA was signed, obtaining an exclusive global license for innovative PFAS treatment technology.

“I am delighted with the strong performance of Asia Pacific, in particular the turnaround in Asia. Asia in 2019 returned to growth and solid margins and is now set for longer term profitable growth. Australia Pacific continued its ‘best in class’ performance in growth, margins and cash conversion. I am also really pleased that staff engagement increased, and turnover decreased across the region.”

Greg Steele
Group Executive
responsible Asia Pacific

Asia

Market dynamics

Market trends and opportunities that impacted the region were:
- Strong growth of the China Tech industry continuing;
- Rising costs in China resulting in the establishment of factories in other South East Asian countries such as Vietnam;
- Poor market conditions in Singapore and Malaysia;
- Good growth in China East, Greater Bay Area and Philippines;
- Increased relevance of livability, environment and water issues in Asian cities.

Strategy implementation in Asia

A review of the Asia portfolio of countries, services and clients has resulted in a much more focused and coordinated approach to winning and delivering projects across the region. We successfully exited Taiwan, the D&E business in China and Cost Management in Indonesia. The digitization of our cost management business progressed well, with the benefits of this investment being realized in 2020 and beyond. The wellbeing and diversity & inclusion program implemented for all staff was well received. Staff engagement across the region improved again with a corresponding decrease in staff turnover.

Developments in 2019

Net revenues in Asia increased organically by 1%, even with the divestments, headwinds of Hong Kong disruptions and US/China trade war. This is a result of our greater focus on fewer markets and key clients and our improved concentration on project pursuits.

Examples of new project wins and/or projects that were completed during 2019 include:
- Headquarters for an E-commerce giant
  An e-commerce giant is building its second headquarters in Beijing, which will dramatically drive the economic and digital development of the city. Arcadis provided quantity surveyor services as part of the RMB 6.4 billion investment.
- Hong Kong Rail Operator - Smart City Consultancy and Risk Assessments
  Hong Kong-based operator and property developer engaged Arcadis as a Smart City consultant for an upcoming greenfield district in the city. A detailed study with over 12 Arcadis Smart City thought leaders from around the world made recommendations on how smart city technology can be implemented.
- Jewel Changi Airport
  Arcadis delivered cost management expertise to Jewel, the new iconic addition to Changi Airport, a joint venture development between Changi Airport Group and CapitaLand. It features a wide array of offerings, such as gardens and attractions, retail and dining options, a hotel and facilities for airport operations.

The number of employees in Asia declined 8% to 3,628 (2018: 3,965), 53,4% of whom are female. Asia is supported by 195 employees in the Global Excellence Centers/Global Shared Service Center.

Australia Pacific

Market dynamics

The region continues to perform strongly off the back of a strong infrastructure market. Trends and opportunities include:
- Our key markets of infrastructure, buildings and environment are still solid;
- High population growth in major cities continues to drive urban renewal and enhanced mobility initiatives;
- Very strong infrastructure pipeline in Sydney and Melbourne driven by asset recycling and delivered through PPPs;
- Federal Government increasing infrastructure investment in cities and regionally to boost the overall sluggish economy.

Strategy implementation in Australia Pacific

A continued focus on client & pursuit excellence will remain core to the strategy as will improving project delivery performance and better use of Global Excellence Centers. The region will continue to diversify its business into markets including environment, tunnels, energy and resources and ports and logistics.

Developments in 2019

Net revenues in Australia Pacific increased organically by 7%. This strong revenue growth was fueled by delivery and growth in projects such as Melbourne Metro, Sydney Metro and strong highways programs in Sydney and Melbourne.

Examples of new project wins and/or projects that were completed during 2019 include:

- Western Sydney International Airport
  Arcadis in joint venture won the design of major earthworks and airfields of the world-class smart airport, built to service 10 Million passengers a year from the day it opens in 2026.
- Sydney Central Precinct
  Arcadis will provide planning and design services for a major urban renewal program in one of Sydney's most connected sites. Central Precinct provides an exceptional opportunity to expand Sydney's southern CBD (known as south Central Sydney) and create a new place for business and the community by renewing 24 hectares of government-owned land.

The number of employees in Australia Pacific increased by 19% to 1,171 (2018: 984), 30% of whom are female. The number of employees in the Global Excellence Centers supporting Australia is approximately 360.

Segment financial results

The overall financial results of the Segment in 2019, based on IAS 17, were as follows:

	Revenues			Revenue growth		
In € millions	**2019**	**2018**	Total	Organic	Acquisitions	Currency
Gross revenues	388	375	3%	4%	-1%	0%
Net revenues	350	331	6%	3%	0%	3%

	2019	**2018**
EBITA	31.3	24.2
EBITA margin	9.0%	7.3%
Operating EBITA[1]	34.9	25.4
Operating EBITA margin	10.0%	7.7%

1 Operating EBITA excludes acquisitions, restructuring, and integration-related costs

For the segment financial results of 2019 based on IFRS16 see page 274.

Ikea Shopping Center Group
Shanghai, China

Complex green shopping landmark: IKEA Gathering Center

In Shanghai, Ikea is realizing the largest investment the company has ever made, the IKEA Gathering Center Shanghai project. Upon completion in 2022, the $1.2 billion (7 billion yuan) mixed-use shopping center will encompass 437,000 square meters. It will include shopping malls, restaurants, office buildings, cinemas, and entertainment facilities.

Relevant SDGs:

11 SUSTAINABLE CITIES AND COMMUNITIES

Challenge

The large project scale, extended construction period, high sustainability standards and large number of project participants – more than 20 technical consulting companies alone – all contributed to the complexity of the project. Additional challenges were the connections with existing structures and the project's deep foundations.

Solution

Arcadis covers the project management and full pre and post contract work on the project, using Building Information Modeling throughout. This provides better control of some of the most complex aspects of project, including the connection with the original building of the Hongqiao hub, which has brought challenges to the design, cost control, contract procurement and management, and project progress. Another difficult construction feature was presented by the 22-meter-deep foundation pit and maintenance structure which are extremely difficult to construct. The whole complex is realized under international green building standards.

Impact

With an estimated 300 domestic and international fashion brands, as well as food and beverage outlets accompanied by cultural and entertainment options, including a flagship Ikea store, the new center is an important economic development for this part of Shanghai. Its sustainable and iconic features provide innovative shopping experiences and is expected to attract visitors from throughout the region.

Environmental Protection Department (EPD), HKSAR
Hong Kong, China

Waste to energy for Hong Kong

While separation at the source is an important instrument in reducing the amount of solid waste, not every waste stream is fit for reuse. Hong Kong has limited capacity left in its existing landfills, while its population continues to grow, driving the need for alternative solutions which were found in the form of incineration and advanced recycling of mixed municipal solid waste streams. Working with the contractor and dredging company, Arcadis contributes detailed design and applying its digital tools to facilitate a fast track design.

Relevant SDGs:

Challenge

Looking for alternative solid waste processing solutions, the Environmental Protection Department of Hong Kong has decided to invest in a new US$ 4 billion integrated waste management facility. The new plant will consist of an advanced incineration facility and a demonstration scale plant for the recovery of recyclables. The facility will be developed in phases, with phase 1 delivering a daily incineration treatment capacity of 3,000 tons and a recycling capacity of 200 tons.

Solution

Arcadis delivers detailed design services for several components of the new facility including reclamation, civil and marine structures, buildings, geotechnical and building services. It uses building information modelling (BIM) and BIM management as digital tools to fast track the design for this complex and sizable project. Our design includes prefabricated seawalls and reclamation for a 16-hectare offshore site. Deep cement mixing of the seawall foundations and no-dredge solutions for the reclamation will minimize the environmental effects on the pristine marine life around the site.

Impact

Once completed, the integrated waste management facility will reduce the volume of solid waste by 90% through the incineration process. The facility will be equipped with an installation to recover heat energy from the incineration process to produce about 480 million kilowatt-hours (kWh) of surplus electricity enough to sustain 100,000 households. In addition, the site has a net zero wastewater approach, with on-site treatment and reuse strategies.

Blue SG
Singapore, Asia

Affordable urban mobility in Singapore

Inner city car ownership is costly and often impractical due to parking issues. A more convenient and affordable alternative mode of transport is car sharing, which is becoming increasingly popular. For citizens it diminishes the need to own a car and the responsibility of topping up gas, covering insurance, parking fees or taxes.

Relevant SDGs:

Challenge

BlueSG, is a new environmentally friendly electric car sharing service in Singapore. To enable better access to charging points for their increasing fleet across Singapore, it has a target of building 500 charging stations and 2000 charging points by 2020. BlueSG is a sustainable mode of transport that has zero-emission of CO_2, improves air quality, and produces less noise.

https://www.bluesg.com.sg

Solution

Arcadis prime responsibility is to deliver project management services to BlueSG, ensuring that we meet the target timelines given, and deliver project excellence with quality and accurate work. Scheduling contractors, telecommunication service providers and other stakeholders must be coordinated in a productive and efficient manner with limited room for error to tackle the challenge of a tight timeline. Arcadis works closely with architects to ensure that issues are addressed early to prevent any delays for contractors. We would conduct pre and post-site assessments to all sites and help to give value-added solutions when problems arise.

Impact

At the end of 2018, there has been more than 2 million of kilometres driven on BlueSG and 480 tonnes of CO_2 saved from the use of BlueSG cars. This December 2019, BlueSG reported that the kilometres travelled has quadrupled with over 8 million of kilometers driven from 460,000 BlueSG rentals. On top of the environmental benefits, drivers are charged by the minute at a reasonable price making BlueSG a simple, convenient and affordable alternative mode of transport for Singapore citizens. Through the BlueSG project, Arcadis is proud to help support the Singapore government's Smart Nation and car-lite vision, improving mobility and connectivity for citizens in Singapore.

Transport for NSW
Sydney, Australia

Central Precinct Renewal Program

A major urban renewal program in one of Sydney's most connected sites. Central Precinct provides an exceptional opportunity to expand Sydney's southern CBD (known as south Central Sydney) and create new place for business and the community by renewing 24 hectares of government-owned land.

Relevant SDGs:

11 SUSTAINABLE CITIES AND COMMUNITIES

Challenge

The vision for Central Precinct is a vibrant and exciting place that unites a world-class transport interchange with innovation businesses and public spaces. It will connect the city at its boundaries, celebrate its heritage and become a centre for the jobs of the future and economic growth. To deliver this vision, Transport for NSW (TfNSW) has assembled a world-class team with the depth of knowledge, experience and expertise required to unlock the potential of Central Precinct and transform it into a destination in its own right.

Solution

Working in partnership with TfNSW and the wider project team, Arcadis will provide engineering design services to inform the solutions being developed for the precinct. This will evolve into a broader masterplan to support the state significant precinct planning process. A key focus of the project team will be to inspire and engage the community, industry and stakeholders, and bring them along for the journey.

Impact

Urban renewal in one of Sydney's most connected sites. A new place for business and the community.

Performance by Segment
CallisonRTKL

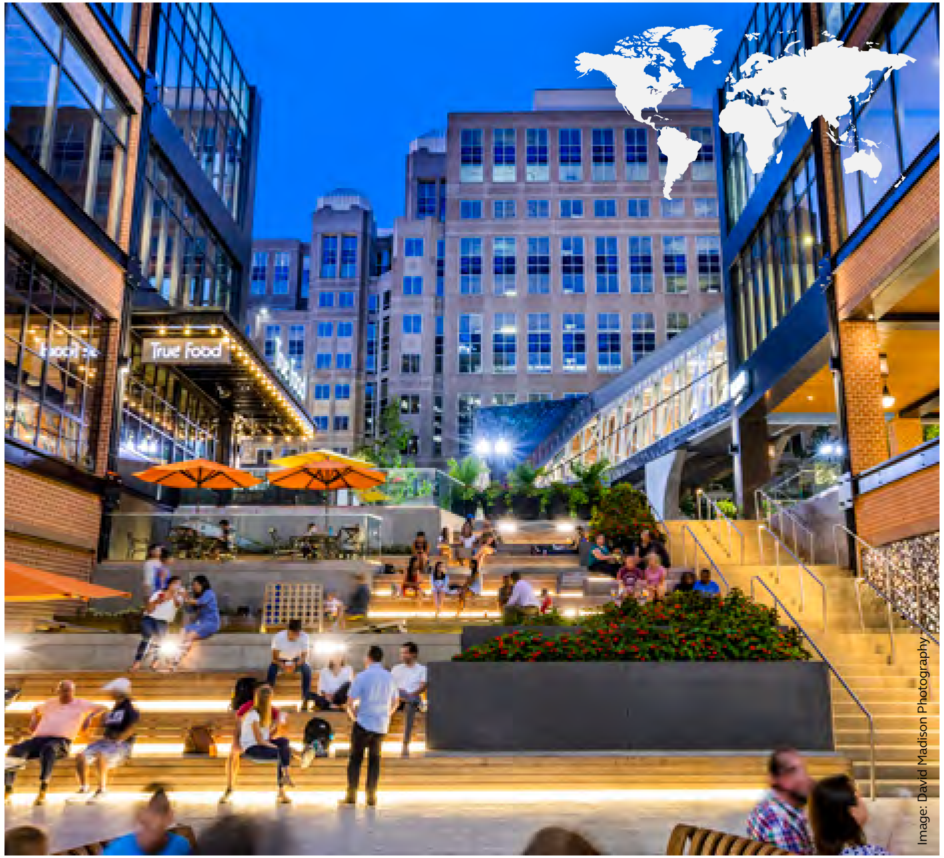


Image: David Madison Photography

Number of employees
headcount as at 31 December

1,592

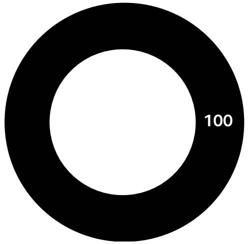
2018: 1,753

% of net revenues
of total Arcadis

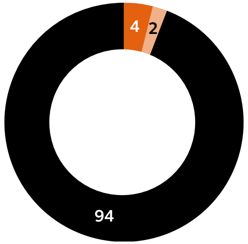
9%

2018: 9%

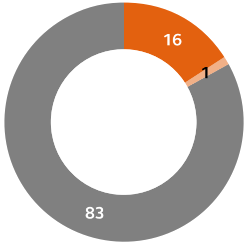
Clients
University of California San Diego, The Stanford Adult Hospital, Aldar Properties



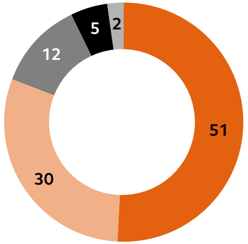
Expertise in %
- Infrastructure
- Water
- Environment
- Buildings



Services in %
- Consultancy
- Design & engineering
- Program, project & cost management
- Architectural design



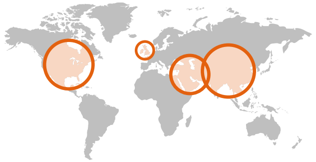
Clients in %
- Public
- Regulated
- Private industrial



Segments in %
- North America
- Asia
- Middle East
- UK/Europe
- Other

Performance by Segment

Performance in 2019



People & Culture

			2018
Number of employees	headcount as at 31 December	1,592 ↓	1,753
Employee engagement score		68%	2018[1]: n/a
Voluntary turnover rate	as % of total staff	17% ↑	21%
Total Recordable Case Frequency (TRCF)	per 200,000 work hours	0.00 ↑	0.07
Females in total workforce	as % of total staff	48% ↑	47%

Innovation & Growth

			2018
Organic revenue growth	net revenues	-5% ↓	0%
Organic revenue growth Global Key Clients[2]	net revenues	–	-22%
Book-to-bill ratio	net revenues	0.94 ↑	0.91
Arcadis Way implementation progress	as % of net revenues	to start ↔	to start
Arcadis' carbon footprint	MT CO_2 per FTE	4.10 ↑	4.76

Focus & Performance

			2018
Gross revenues	in € millions	301 ↔	301
Net revenues	in € millions	222 ↑	220
Operating EBITA margin	as % of gross revenues	7.6% ↓	8.8%
Net Working Capital	as % of gross revenues	14.8% ↓	8.9%
Days Sales Outstanding	(DSO)	98 ↓	70

1 CallisonRTKL implemented its own employee engagement survey in 2019
2 In 2018 it was decided that CallisonRTKL will have its own separate global organization, also resulting in its own client focus program

Key business developments in 2019

CallisonRTKL continued to transform its business in 2019. Kelly Farrell was named CEO in May 2019 and put an immediate focus on our clients, our people and improving operational performance through project selection and performance, operational efficiencies and cost control measures. Investments in healthcare and workplace practices resulted in backlog growth in the fourth quarter. Geographic and sub-sectors diversification of our commercial and retail practices provide a good foundation for 2020.

Key developments CallisonRTKL

- CallisonRTKL is implementing a new operating model to improve profitability, including measures to address underperforming offices.
- Other key priorities in the new model include strengthening of business development and investing in talent.
- Net revenues declined organically by 5% for the year. The operating EBITA margin was lower at 7.6% (2018: 8.8%). Although overall backlog was 7% lower than 2018 it shows a positive trend and grew by 3% in the fourth quarter.

"**CallisonRTKL steered through several headwinds in 2019, which impacted financial performance.** It continues to create positive impacts for our clients, communities and people through award-winning design and consulting work. Their commitment to clients, operations, the next generation of practice creates resilience in our offering and positions CallisonRTKL for future success."

Mary Ann Hopkins
Group Executive
responsible for CallisonRTKL

CallisonRTKL

Market dynamics

Market trends and opportunities that we identified for CallisonRTKL include:

- Clients are increasingly reimaging their business strategies for a digital world, striving to make smarter and more agile decisions.
- Clients are blurring the lines between traditional market sectors redefining mixed-use opportunities.
- Clients are becoming increasingly focused on local impacts while looking at broader global markets
- Cities and industries are developing and implementing resilience strategies building on the environmental spectrum and adding the social spectrum to ensure that communities can remain vibrant and diverse.
- Increasing demand for quality housing across all spectrums of affordability;
- Increased density leading to more mixed-use projects;
- Adaptive reuse of assets that have been made redundant by our changing world; the repositioning of existing assets also addressed challenges in getting planning and construction approvals, which is hindering new development in many of the developed markets of the world.
- Continued changes in demographics creating new opportunities in health care and housing;
- Integration of innovative technology with a strong design to create positive and robust user experiences.
- Increased focus of investors, developers, and local authorities in measuring the social impact of their strategies. This added metric beyond the financial return as the primary metric, leads to different criteria in evaluating project success.

Strategy implementation in CallisonRTKL

While implementing the corporate strategy, CallisonRTKL focuses on our people and our clients. For our people, we are committed to their development, opportunity and rewarding their performance becoming an employer of choice. CallisonRTKL' s people represent a diverse community speaking 55+ languages, living on four continents, with talents that range from urban design through architecture and interiors to user experience. For our clients, we are committed to partnering in improving outcomes for their cities, communities, industry, and users while creating beautiful places that people love.

CallisonRTKL's market position is diversified through strong footholds in four primary practice areas – Health, Commercial, Retail and Workplace; significant services in Architecture, Interiors, Urban planning, technology, and user experience; and three major geographic regions North America, EMEA, and APAC. In 2019 the aim was to grow resilience in practice by investing in Healthcare and Workplace and to expand diversity of geographic market and subsectors in both Commercial and Retail.

Healthy growth in both Workplace and Healthcare backlogs in 2019; and a continued strength in diversified retail and commercial markets provide a good foundation for 2020. Focus on project selection, operational efficiencies and cost-control measures continued in the second half of the year.

Developments in 2019

CallisonRTKL is implementing a new operating model to improve profitability, including measures to address underperforming offices. Other key priorities in the new model include strengthening of business development and investing in talent. Net revenues declined organically by 5% for the year. The operating EBITA margin was lower at 7.6% (2018: 8.8%). Although overall backlog was 7% lower than 2018 it shows a positive trend and grew by 3% in the fourth quarter.

Examples of important new project wins and/or projects that were completed during 2019 include:

- CallisonRTKL extended their contract with the University of California San Diego through the award of the US $5.2M Schematic Design Phase of the Hillcrest Phase 1 Outpatient Pavilion, which will house advanced imaging, oncology, and surgical facilities for the first phase of their campus redevelopment project.
- CallisonRTKL has kicked off Architectural Phase 1 of a mixed-use transformation of Ivanhoe Cambridge's Metrotown mall in Burnaby, BC, the top mall in their portfolio. CallisonRTKL's initial expansion leaves an urban mall concourse at the highly valuable central area of the sprawling mall, and future CallisonRTKL projects will convert outlying concourses to mixed-use developments as department store leases expire over the next 20-60 years.
- CallisonRTKL, through OneEQ has recently been a part of the opening of a large academic state of the art new Hospital, The Stanford Adult Hospital. The project is 824,000 square feet of building space, 368 new private rooms, 3 acres of surgical floor space, 3 MRI machines, 20 operating rooms, eight interventional/radiology image-guided highly integrated rooms, 3 CT machines, and one intraoperative (iMRI) suite. The project has 30% reduced irrigation and 35% less energy consumption than traditional Hospital buildings.
- CallisonRTKL has developed the master plan and the Phase 1 architectural design for Station Hill, a major urban regeneration scheme adjacent to the central train station in Reading west of London. Phase 1, consisting of 538 residential units, received planning permission in July and will start construction in March 2020, and Phase 2, consisting of 600,000 sq.ft. of commercial office, 380,000 sq.ft. of mixed residential (Hotel, Apartments, Co-Living, and Student housing). The scheme features a significant public realm component and will bring back to life an essential urban site in Reading that had not been able to be redeveloped for nearly 20 years.

- CallisonRTKL has just completed the master planning and phase 1 of the Saadiyat Grove project in Abu Dhabi, an AED8 billion ($2.18 billion) community located in the heart of the Cultural District on Saadiyat Island, to be developed by Aldar Properties. The project will feature 60,000 square meters of experiential retail, entertainment, and leisure space designed to create an inclusive community, as well as 3,706 residential units, including 170 branded residential units.
- A new strategic business alliance has been struck to support a €2 billion European-based lifestyle hotel company in developing all future constructed hotels and BIM standards globally. The alliance plans to strengthen internal business processes while linking new technology to tracking and implementing a new construction methodology.
- CallisonRTKL has been awarded a design and supervision role over a five-year build-out period for a new US$325 million new hotel tower and refurbished entertainment venue in New Orleans. This multi-phase project will bring a new 340-key hotel tower, 10,000 square feet of meeting space, pool areas and 3 new F&B venues.
- Maike Center in Xi'an China has been provisionally recognized as an 'Award of Excellence' winner in the Best Tall Building (200m-299m height category) of the CTBUH 2020 Awards Program.

CallisonRTKL has 1,524 employees, of which 48% are female, across 20 offices worldwide as it pivoted its strategy around resources and initiatives. CallisonRTKL takes pride in its diverse representation across its global footprint. As of December 2019, CallisonRTKL is supported by 68 employees in the Global Excellence Centers. With an employee engagement score of 68%, as measured by a global conjoint survey managed in partnership with Mercer in December 2018, CallisonRTKL has been focused on leadership repositioning and strategic hires since Kelly Farrell was appointed CEO in May 2019 with an effort to streamline its practice areas and service lines that have already shown steady signs of positive trending across the business.

Safety performance continues to be strong within the culture of CallisonRTKL with no recordable incidents in 2019. CallisonRTKL continues to build on this foundation focusing on wellbeing to further advance the lives of our people.

Segment financial results

The overall financial results of the Segment in 2019, based on IAS 17, were as follows:

	Revenues		Revenue growth			
In € millions	**2019**	**2018**	Total	Organic	Acquisitions	Currency
Gross revenues	301	301	0%	-4%	0%	4%
Net revenues	222	220	1%	-5%	0%	6%

	2019	**2018**
EBITA	16.7	17.3
EBITA margin	7.5%	7.9%
Operating EBITA[1]	17.0	19.4
Operating EBITA margin	7.6%	8.8%

1 Operating EBITA excludes acquisitions, restructuring, and integration-related costs

For the segment financial results of 2019 based on IFRS16 see page 274.

A beacon for global business

Infirnosa
Madrid, Spain

Challenge

Originally constructed in 1985 in the heart of the city's business district, the 120-metre high Torre Europa needed modern technology upgrades, energy efficient systems and refreshed facades. The fundamental drivers for the refurbishment was that the tower needed to respond to the new urban needs of Madrid and the modern user, while creating a smarter and more sustainable building; a desirable place to work. To add to the challenge, the refurbishment had to take place without suspending the ordinary operation of the companies located in the tower.

Solution

Creating a modern and sustainable building was paramount. CallisonRTKL reoriented the entrance and reduced the lobby by 50%, resulting in a more efficient space, both in terms of use and energy. As a result, a new public entry plaza was created, connecting Torre Europa to its surrounding urban environment. A second entrance on the ground level enhances outdoor connectivity, leading to a new public plaza with dining and other amenities. A more energy efficient air conditioning system was installed, and all elevator lobbies were upgraded accordingly, complemented by new finishes, stone floors, contemporary lighting and a consistent branding identity. CallisonRTKL also replaced the tower's exposed concrete facade with stainless steel, enhancing its modern appeal for a target market of international office tenants.

Impact

The new design reduced Torre Europa's emissions by 31%. By purchasing the additional energy from clean and renewable sources, the building achieves Net Zero Carbon. Key technology upgrades ensure that the whole building is efficient and user friendly. Torre Europa is now a world-class sustainable working environment and has been awarded LEED Gold status by USGBC. When refurbishment works began at Torre Europa, it had 40% vacancy; today, it is 98% leased.

Room with a view: Staff engagement and Virtual Reality

Jefferson Health
Cherry Hill and Washington Township, USA

In 2015, CallisonRTKL conducted a system-wide facility assessment and master plan for Jefferson Health New Jersey's network of hospitals. This resulted in a strategic 2020 vision for the organization with a focus on acute care bed expansion to meet growing demand and consumer expectations for private accommodations. CallisonRTKL was subsequently hired to design two 120-bed patient towers.

Challenge

Despite strong leadership and quality staff, the aging infrastructure of Jefferson Health's New Jersey hospitals needed modernization. Double-occupancy rooms and a lack of facility standardization created inconsistent levels of care and operational inefficiencies. Jefferson/CRTKL identified the design of the patient room as a critical element to the challenges and promote a new shared standard of care.

Solution

Our approach focused on continuous user input throughout the design process and engaged staff at interactive planning sessions, facility tours and with virtual reality experiences. At a week-long user engagement event, over 150 staff members toured a physical and virtual reality mock-up of the patient room. Staff evaluated their practices and how the design of the room will enable better outcomes. A survey was conducted to collect quantifiable data as well as qualitative impressions. exposed concrete façade with stainless steel, enhancing its modern appeal for a target market of international office tenants.

Impact

By committing to continuous user engagement, Jefferson Health is using design to improve care practices and foster a shared vision throughout the organization. Our unique process also enabled their culture to shift from 'this is how we always do it' to a modern, optimal workflow focused on patient, family and staff experiences.

The Arcadis Shelter Program: Building Beira Back Better after the disaster

The Arcadis Shelter Program, supporting UN-Habitat

Arcadis supports UN-Habitat to provide pro bono technical expertise for development projects all over the world. UN-Habitat is the United Nations program working towards a better urban future. Through the Shelter Program technical expertise of Arcadis staff is combined with the humanitarian goals of UN-Habitat in those locations where this expertise is needed most. Since 2010 with financial support of the Lovinklaan Foundation the Shelter program supported over 100 development projects on request of UN-Habitat.

Tropical Cyclone Idai

On 15 March 2019, one of the worst tropical storms ever recorded hit the east coast of Mozambique near the City of Beira, bringing extreme winds and rainfall, and causing extensive flooding. The cyclone left more than 1.200 people dead and 80% of the buildings were damaged. In the weeks after the storm thousands of people contracted cholera from water contaminated with sewage.

Taskforce rebuilding Beira

Shortly after the cyclone, UN-Habitat and the Arcadis Shelter program decided to join a Taskforce Beira together with the Netherlands government and UNDP, to develop a post-disaster needs assessment and project plans to create a more sustainable, safe and future-proof Beira. A team of six Arcadis experts from Brazil, Belgium and The Netherlands immediately travelled to Beira to make project plans for coastal protection, drainage systems, waste management and green infrastructure.

Building Back Better

In June 2019 the Mayor of Beira presented the project proposals at the Beira Donor Conference, for international donors such as the World Bank, the European Union and the United Nations. USD 1.2 billion was pledged for reconstruction in Mozambique. 200 million dollars (USD) of that money is earmarked for the projects which were identified by the Arcadis experts, enabling Beira to Build Back Better.

Performance associate
Arcadis Logos Energia (ALEN)

Arcadis Logos Energia (ALEN), an associate of Arcadis in which it owns 49.99% of the shares and voting rights, builds, operates and transfers renewable energy assets in Brazil, leveraging the engineering skills of Arcadis Logos. Since 2011, ALEN has focused primarily on divesting the existing portfolio of energy assets and no new projects have been taken on board.

Today, the assets in ALEN's portfolio are biogas installations on five large landfills in the metropoles of Rio de Janeiro and São Paulo. The biogas installations contribute significantly in reducing greenhouse gas emissions from methane that would otherwise be released to the atmosphere, besides contributing to sustainable energy production.

Since mid-2017, the ALEN associate together with partners, has focused on (re)building five state-of-the-art installations with the aim to divest the assets by the end of 2019. The venture had to relocate the gas-to-gas plant 'Gas Verde' from another landfill, rebuild and commission it. During these activities it was confronted with several significant setbacks resulting in delays in the production ramp-up and additional costs. The gas-to-power plants required significant construction activities and whereas all of these activities faced challenges and setbacks, it managed to deliver fairly good progress.

Given this progress, the ALEN associate together with partners proceeded with the divestment process, starting in the beginning of the year and supported by financial advisor Itaú bank with the objective to divest the energy assets by the end of 2019. The divestment process provided clear signals of serious interest by third parties, as also reflected in the number of non-binding bids, received in early October. However, recent developments, including the unsatisfactory performance of the biggest (Gas Verde) asset, and the offers received, led us to the reassess the business case.

This reassessment led to the decision to stop further investments in the ALEN associate and take an additional provision in the fourth quarter of €85 million against the exposure, mainly for provided guarantees. The decision will imply that our local partners will continue with the operation of the assets and we will support them in their attempt to sell the assets in due course. However, and as evidenced by our reassessment of the business case we do not expect the overall value to cover for the expected credit loss on guarantees.

See note 16 of the Consolidated financial statements for further details on Arcadis' investment in ALEN and the provided corporate guarantees.

Gas-to-gas

Gas Verde Seropédica Rio de Janeiro
- 42% stake by ALEN
- Operational since 2019

Gas-to-power

Nova Iguaçu Rio de Janeiro
- 50% stake by ALEN
- Operational since 2019

São Gonçalo Rio de Janeiro
- 50% stake by ALEN
- Operational in 2020

São João São Paulo
- 75% stake by ALEN
- Operational since 2008

Bandeirantes São Paulo
- 75% stake by ALEN
- Operational since 2004

Governance & Compliance
Operating responsibility

Composition of the Executive Board

Peter Oosterveer
Dutch nationality,
1957
BSc
Term 2017 - 2021

Chief Executive Officer and Chairman of the Executive Board

IT/Arcadis Way, Legal & Compliance, Internal Audit
Other position: Member Executive Committee World Business Council for Sustainable Development

Peter Oosterveer was selected as Chief Executive Officer and Chairman of the Executive Board of Arcadis NV in 2017. Before joining Arcadis, he worked for Fluor Corporation which he joined in 1988 as Controls System Engineer. Initially based out of the Netherlands, he was assigned to several international projects, followed by general management roles.

In 1999, he moved to Fluor's headquarters in California to lead the Corporate SAP implementation. After the successful delivery of this program, he returned to the Netherlands to assume the role of General Manager for Fluor in the Netherlands, and subsequently to lead the growth of the Chemicals business for Fluor in Europe, Africa, and the Middle East, followed by assuming global responsibility for the Chemicals Group. Peter Oosterveer relocated to Houston in 2009 to become President of the Energy and Chemicals group for Fluor globally, which also made him a member of the Fluor Corporate Leadership Team.

In 2014, he was appointed as Chief Operating Officer of Fluor, based in Dallas and responsible for approximately US$20 billion of annual revenues. Peter Oosterveer is also a former Director of the US-China Business Council and a former Director of FMC Technologies.

Prior to his career in Fluor he worked for Hoogovens IJmuiden (now Tata Steel) and Alpha Engineering.

Sarah Kuijlaars
British nationality,
1967
MA (Oxon), FCMA, ACT
Term 2018 - 2022

Chief Financial Officer and Member of the Executive Board

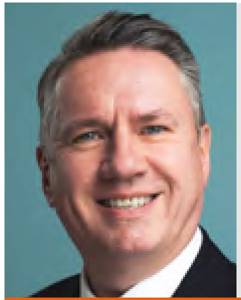
Financial Planning, Reporting & Business Appraisal, Tax, Treasury, Risk & Control, Investor Relations
Other position: Non-executive Director Aggreko plc.

Sarah Kuijlaars was selected as Chief Financial Officer and Member of the Executive Board of Arcadis NV in 2018. Prior to joining Arcadis she worked in various roles for Royal Dutch Shell and Rolls-Royce Holdings. In 1989, she joined Royal Dutch Shell in London as Regional Treasury and Banking Management Assistant, followed by financial planning, advisory and treasury roles based in, inter alia, Brazil, Argentina and the Netherlands. She subsequently took on larger financial leadership roles, including Finance Manager Shell Exploration and Production International in the United Arab Emirates, Finance Director Shell Nigeria Exploration and Production, and Vice President Finance Upstream CIS in Russia. In 2013, Sarah Kuijlaars was appointed Senior Vice President Finance Downstream Global Controller in the United Kingdom. She moved to Rolls-Royce Holdings in 2016, where she held various positions, including Controller, Deputy CFO and CFO of Civil Aerospace.

Sarah Kuijlaars holds a master's degree in mathematics from Oxford University, is a Fellow of the Chartered Institute of Management Accountants (FCMA) and an associated member of Corporate Treasurers (ACT).

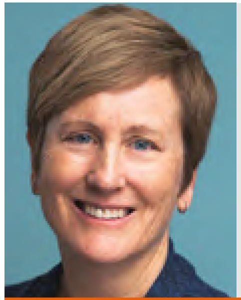
Governance & Compliance
Operating responsibility

Composition of the Executive Leadership Team[1]



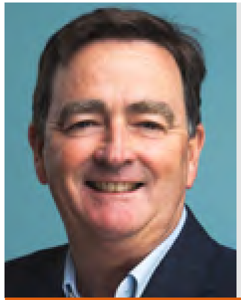
Alan Brookes
British nationality, 1961
MBc, FRICS
In ELT since 1 April 2018

Group Executive Europe & Middle East
Continental Europe, United Kingdom, Middle East



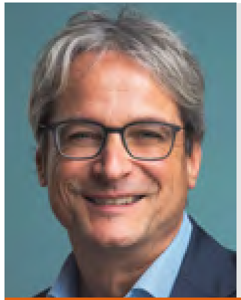
Mary Ann Hopkins
US nationality, 1965
MS
In ELT since 11 March 2018

Group Executive Americas & CallisonRTKL
North America, Latin America, CallisonRTKL



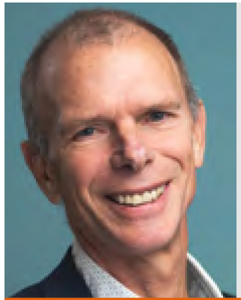
Greg Steele
Australian nationality, 1961
MBE, Grad Dip Bus, FIEAust
In ELT since 16 July 2018

Group Executive Asia Pacific
Asia, Australia Pacific



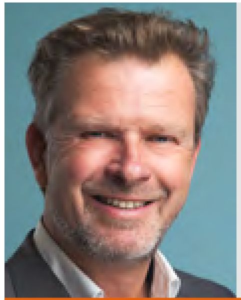
Stephan Ritter
German nationality, 1968
MB
In ELT since 11 March 2018

Group Executive Innovation & Transformation
Corporate Strategy & Development, Digital, Marketing & Communications, Sustainability, Arcadis Gen



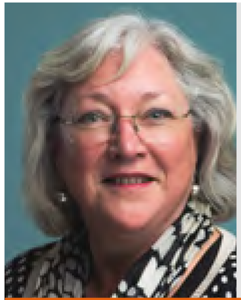
Rob Mooren
Dutch nationality, 1956
MSc
In ELT since 1 April 2018

Group Executive Project Services
GECs, Health & Safety, Project Management Excellence



Erik Blokhuis
Dutch nationality, 1967
MBc
In ELT since 1 April 2018

Group Executive Sales & Business development
Sales & Business development



Jacoline van Blokland
Dutch nationality, 1964
MSc
In ELT since 1 October 2019

Chief People Officer
People Strategy & Culture

1 The full Executive Leadership Team includes the CEO and CFO

Composition of the Supervisory Board

Niek W. Hoek
Dutch nationality, 1956
Term 2013 – 2021

Chairman, Audit and Risk Committee, Selection and Appointment Committee (Chair), Remuneration Committee

Current other non-Executive Board positions:
- Chairman of the Supervisory Board of Van Oord
- Member of the Supervisory Board of Anthony Veder (Netherlands Antilles N.V.)
- Member of the Supervisory Board of the KNRM (Raad van Toezicht)
- Member of the Supervisory Board of BE Semiconductor Industries N.V.
- Member of the board of the foundation Preference Shares NEDAP N.V.

Current other positions:
- Managing Director of Brandaris Capital
- Executive Director Dutch Star Companies ONE

Previous positions:
Chairman of the Supervisory Board of Stadsherstel Amsterdam N.V. (2011 - 2015; member SB 2003 - 2015); Chairman of the Supervisory Board of Stichting Zuiderzeemuseum (2011 - 2015; member SB 2008 - 2015); Member of the Supervisory Board of NIBC Bank N.V. (2003 - 2015); Chairman Executive Board Delta Lloyd (2001 - 2014; member EB 1997 - 2014); Member of the Supervisory Board of Euronext N.V. (2010 - 2013); Several functions within Delta Lloyd and Shell.

Michiel P. Lap
Dutch nationality, 1962
Term 2015 – 2023

Vice-Chairman Supervisory Board, Audit and Risk Committee

Current other non-Executive Board positions:
- Member Supervisory Board ABN Amro Bank N.V.
- Director Rijn Capital B.V.

Previous positions:
Industrial Advisor to EQT Partners (2014 - 2019); Member Supervisory Board Janivo Holding (2015 - 2018); Non-executive director Royal Brompton & Harefield Hospitals Charity in London (2012 - 2015); Managing Director and Partner Goldman Sachs Inc. (2004 - 2014); Executive Vice President Orange SA (2001 - 2003); Managing Director Morgan Stanley and Co., London (1988 - 2001); Assistant Vice President JP Morgan (1984 - 1988).

J.C. Maarten Schönfeld
Dutch nationality, 1949
Term 2008 – 2020

Audit and Risk Committee (Chairman)

Current other non-Executive Board positions:
- Member Supervisory Board Fugro N.V.
- Board member Stichting VOPAK
- Board Member Stichting Continuïteit ICT
- Board Chairman Children Fund of Malawi

Previous positions:
Member Supervisory Board SIF Holding N.V. (2016 - 2018); Member Supervisory Board University of the Arts, The Hague (2008 - 2016); Member Supervisory Board AFM (2012 - 2014); Member Supervisory Board Brunel N.V. (2011 - 2012); Member Supervisory Board Draka N.V. (2010 - 2011); Member Supervisory Board Technical University Delft (2008 - 2016); Member Supervisory Board S&B Industrial Minerals Finance Holdings S.a.r.l. (2009 – 2015); Vice-Chairman of the Executive Board and CFO of Stork BV (2001 - 2008); Several senior international management positions at Royal Dutch Shell Plc. (1977 - 2001); USA, Argentina, Portugal, Switzerland, Germany, and the Netherlands); worked in Malawi, Africa for the UN Development Program (1974 - 1976).

Ruth Markland
British nationality, 1953
Term 2009 – 2021

Remuneration Committee (Chair), Selection Committee

Current other non-Executive Board positions:
- Independent non-Executive Board Member Deloitte LLP
- Senior Independent Director Quilter PLC

Previous positions:
Non-executive Director The Sage Group PLC (2007 - 2017); Non-executive Director Standard Chartered PLC (2003 - 2015); Lawyer/Partner, Freshfields (1977 - 2003) in their offices in London, Singapore, and Hong Kong; Lawyer, Nabarro Nathanson (1975 - 1977).

Composition of the Supervisory Board

Deanna Goodwin
Canadian nationality, 1965
Term 2016 – 2020

Remuneration Committee, Selection Committeee

Current other positions:
- Member of the Board of Directors Kosmos Energy
- Member of the Board of Directors Oceaneering International, Inc.

Previous positions:
President TECHNIP North America (2013 - 2017); Chief Operating Officer, Offshore TECHNIP North America (2012 - 2013); Senior Vice President Operations Integration, TECHNIP (2011 - 2012); Chief Financial Officer North America, TECHNIP (2007 - 2011); Various positions at VeritasDCG (1993 - 2007).

Wee Gee Ang
Singaporean nationality, 1961
Term 2017 – 2021

Remuneration Committee, Selection Committee

Current other non-Executive Board position:
- Advisor to TVS Motor Limited (Singapore branch)

Previous positions:
Board member Building and Construction Authority of Singapore (2016 - 2019); CEO Keppel Land Limited (2013 - 2017); Board member Raffles Institution (2015 - 2017); Board member Keppel REIT Management Limited (2013 - 2017); Executive Vice-Chairman Keppel Land China (2010 - 2012); Executive Director and Chief Executive Officer Keppel Land international (2006 - 2009); Various positions in hotel, real estate, and strategy consulting industries in the USA, Hong Kong and Singapore.

Michael C. Putnam
British nationality, 1960
Term 2018 – 2022

Audit and Risk Committee

Current other non-Executive Board positions:
- Non-Executive Director Network Rail Ltd
- Non-Executive Director Southern Water Services Ltd
- Non-Executive Director 'Tideway' Bazalgette Tunnel Ltd

Previous positions:
Member of the Advisory Board of the Association of Consulting Engineers (2012 - 2018); Specialist Advisor to the House of Lords Science & Technology Committee, assisting their Report on 'Offsite manufacture for Construction' (2018); Member of the UK Government's Construction Leadership Council (2012 - Jan 2018); Chair of the UK Government's Green Construction Board (2012 - 2017); CEO Skanska UK PLC (2009 - 2017); Several leadership positions within Skanska UK PLC (1995 - 2009); Area Manager and Contracts Manager Balfour Beatty Plc (1988 - 1995); Trafalgar House (1982 - 1987).

Pulling our weight in plastics

As Arcadians we are committed to improving the quality of life. Our ability to do this comes from our partnerships with our clients and our communities, relies on the energy of our globally linked staff networks, and is helped by a supportive executive leadership that place a priority on our positive impact as a company.

A recent hot topic around the world is plastic in the environment. Without a doubt, plastic is one of humankind's most versatile inventions. It supports physical safety, food safety and hygiene, medical advances, and innumerable other functions that have improved the quality of modern life. It's everywhere – really, everywhere. The use of plastic has outpaced the waste management infrastructure needed to manage it. Herein lies an opportunity.

When we first heard about Dow's vision of a 'circular economy' for plastic, where its value is retained throughout the entire lifecycle, we wanted to get involved. This ambition is complex, and as Dow works to bring the circular economy to life, they are also doing what they can to raise awareness about plastic in the environment not just with Dow's employees, but with their customers service providers and the communities they operate in. This was Arcadis' first opportunity to help – pitching in on Dow's global #PullingOurWeight campaign of volunteer events to recover plastic waste from the environment and properly recycle or dispose of it.

The #PullingOurWeight campaign is well-aligned with the passion at Arcadis to improve the quality of life. As such, we pledged our support to help Dow. To do this, Arcadis leveraged its global network of young professionals, called 'City Shapers,' to quickly coordinate support for #PullingOurWeight events all around the world. In fact, we had nearly 120 employees support the campaign in 11 different locations ranging from Canada (Toronto and Calgary) to the US (Bay City, Collegeville, Bristol), Brazil (Sao Paulo), China (Beijing, Shanghai, Sanshui, Hong Kong), and Singapore. Attached are photos from those events, showing all the smiling people from Dow, Arcadis, and many others that pitched in to help Dow beat its overall goal of exceeding 100,000 pounds of waste recovered.

The testimonials we heard from our people that participated in these events showed how energized they felt afterward. There was a sense of accomplishment and an appreciation for the company support – these are the kinds of activities they want to see the company involved in.

The positive impact was also very tangible – you could see and measure the waste that was removed from the environment.

We will be doing what we can to help Dow with this campaign as they continue to broaden the awareness and the impact beyond just their own footprint, and even perhaps beyond the collection of waste in communities, possibly going upstream in the plastic lifecycle, helping support the transition to a circular economy. Who knows what may be accomplished, but one thing is for sure, it will take all of us!

Corporate Governance report

Arcadis is committed to the principles of good governance: integrity, transparency, accountability, and proper supervision. It has complied with the Dutch Corporate Governance Code since it was first introduced in 2003, with few deviations. On 1 December 2019, the Dutch Act implementing the amended European Shareholder Rights Directive entered into force (with a few provisions exempted). The Directive aims to encourage effective and sustainable shareholder engagement in listed companies. Key elements relate to remuneration of the Executive Board and the Supervisory Board. In 2019, we have commenced the implementation of the new rules within Arcadis. We will continue these efforts in 2020 and will report on the resulting governance changes in our annual report 2020.

The core topics of the Corporate Governance Code are all explicitly addressed in various chapters of this Annual Integrated Report. For example, diversity in the Executive Board, Executive Leadership Team and Supervisory Board is addressed in this Corporate Governance report on pages 143 and 144. Long-term value creation within Arcadis is addressed on pages 16 and 17 in the Report by the Executive Board. Our company culture is discussed in the section People & Culture starting on page 47. The section on Enterprise Risk Management can be found on page 147.

An overview of the corporate governance structure of Arcadis in 2019 is provided below. Arcadis applies all principles and best practice provisions of the Corporate Governance Code, with one historical exception. This is described on page 146.

For additional information about corporate governance at Arcadis, please visit our website.

www.arcadis.com/governance

Organizational structure

The Executive Board, consisting of the CEO and CFO, is entrusted with the management of the Company, under supervision of the Supervisory Board. To accelerate progress on the implementation of the strategy of Arcadis, the Company introduced the Executive Leadership Team.

The Executive Leadership Team consists of the CEO, the CFO and seven executives with clear accountability to deliver on all components of the Strategy.

Since 2003, Arcadis NV has been an international holding company. Members of the Executive and Supervisory Boards are appointed and dismissed by the General Meeting of Shareholders. The General Meeting can amend the Articles of Association if and as proposed by the Executive Board, with prior approval of the Supervisory Board and the Arcadis Priority Foundation. Such a decision requires a majority of at least three-quarters of the votes cast in a meeting in which at least three-quarters of the issued share capital is represented. If the quorum is not met, a second meeting is required, in which the resolution can be adopted by a majority of at least three-quarters of the votes, regardless of the share capital represented in the meeting.

Executive Board

The Executive Board consists of the CEO and the CFO. The Executive Board is responsible for the management of the Company as well as the continuity of the Company and the Company's goals, objectives, long-term value creation strategy, policy, and results.

The General Meeting appoints the Executive Board members. For every appointment, the Supervisory Board is entitled to make a nomination. The General Meeting can overrule a binding nomination by the Supervisory Board by a resolution adopted by a majority of at least two-thirds of the votes, representing more than half of the issued share capital. On a non-binding nomination, the General Meeting decides by simple majority. The General Meeting can dismiss an Executive Board member. Such a decision, other than proposed by the Supervisory Board, requires at least two-thirds of the votes, representing at least half of the issued share capital.

The Supervisory Board appoints one of the members of the Executive Board as Chairperson and determines, in consultation with the Executive Board, the division of tasks. The composition of the Executive Board and information about its members is provided on page 136 of this Annual Integrated Report.

Executive Leadership Team

The Executive Leadership Team consists of the CEO, the CFO and seven executives with clear accountability to deliver on all components of the strategic plan. Key functional focus areas of the Executive Leadership Team include People, Innovation, Sales and Business Development, and Project performance, all institutionalized globally. The present composition of the Executive Leadership Team and information about its members is provided on page 137 of this Annual Integrated Report.

The CEO determines the number of members of the Executive Leadership Team with approval of the Supervisory Board. The members of the Executive Leadership Team who are not Executive Board members are appointed and dismissed by the CEO, subject to approval of the Supervisory Board.

At least once a year, the Executive Leadership Team evaluates its own functioning as a whole, including the dynamics of and the relationship between the Executive Leadership Team and the Executive Board, and that of individual members of the Executive Leadership Team. At least once a year, outside the presence of the Executive Board and the Executive Leadership Team, the Supervisory Board evaluates the functioning of the Executive Leadership Team, the Executive Board and that of the individual Executive Board members, and discusses the conclusions that must be attached to the evaluation, also in light of succession.

Supervisory Board

The Supervisory Board supervises and advises the Executive Board and the Executive Leadership Team on the performance of its tasks and supervises the overall development of the Company and its affiliates. In doing so, the Supervisory Board is guided by the interests of the Company and its stakeholders. Pursuant to the Articles of Association of the Company, the Supervisory Board consists of at least three members. Members are appointed by the General Meeting.
For every appointment, the Supervisory Board is entitled to make a nomination. The General Meeting can overrule a binding nomination of the Supervisory Board by a resolution adopted by a majority of at least two-thirds of the votes, representing more than one-third of the issued share capital.

In the case of a non-binding nomination, the General Meeting decides by simple majority. The General Meeting can dismiss a member of the Supervisory Board. Such a decision, other than proposed by the Supervisory Board, requires at least two-thirds of the votes, representing at least one-third of the issued share capital.

The Supervisory Board appoints one of its members as Chairperson and one as Vice-Chairperson[1]. In the case of an appointment or reappointment of Supervisory Board members, the Supervisory Board profile is taken into account. Members are appointed for a maximum period of four years. Pursuant to best practice provision 2.2.2 of the Corporate Governance Code, as of financial year 2017, a Supervisory Board member may be reappointed once for a second maximum period of four years, and subsequently for a maximum period of two years, which reappointment may be extended by a maximum of another two years[2]. In the event of a reappointment after eight years, reasons will be given in the report of the Supervisory Board.

The Supervisory Board has established three committees from among its members: an Audit and Risk Committee, a Selection Committee, and a Remuneration Committee. Their task is to assist and advise the Supervisory Board in fulfilling its responsibilities. The tasks and procedures of the committees are outlined in their charters, which can be found on our website. The present composition of the Supervisory Board, its committees, and information about the Supervisory Board members are provided on pages 138 and 139 of this Annual Integrated Report.

1 In 2019, Niek Hoek was chairperson and Michiel Lap was vice-chairperson
2 Based on the transitional arrangement in the Corporate Governance Code 2016, the reappointment of Ruth Markland during the Annual General Meeting 2017 for a third four-year term was exempted from this best practice provision 2.2.2. Furthermore, best practice provision 2.2.2 does not apply to Maarten Schönfeld, whose third four-year term extends until 2020

At least once per year, outside the presence of the Executive Board, the Supervisory Board evaluates its own functioning, the functioning of the Supervisory Board committees, and that of the individual Supervisory Board members, and discusses the conclusions that are attached to the evaluation.

Diversity in the Executive Board, Executive Leadership Team and Supervisory Board

Arcadis believes that diversity and inclusion should extend to all areas of its organization[1]. Arcadis believes that the organization gains from a broad range of skills and a variety of backgrounds. Based on the nature and complexity of the Arcadis business, the markets in which Arcadis operates, and the diversity of the client base of Arcadis, Arcadis identified the diversity aspects of gender, nationality/geographical provenance, and background (education and/or (work) experience) as being most relevant for Arcadis and its business. On the basis of these diversity aspects, diversity targets have been identified for the Supervisory Board, the Executive Board and the Executive Leadership Team. The paragraphs below describe these specific diversity targets and their implementation and results against the targets. Going forward, Arcadis will continue to identify and search internal and external candidates for positions in the Executive Board, the Executive Leadership Team and the Supervisory Board from a variety of backgrounds, whilst at the same time not compromising quality, expertise, and experience. In the event that a global recruitment firm is engaged, Arcadis gives search instructions in line with the diversity policies.

Gender – targets & outcome

In line with applicable legislation[2], the Supervisory Board has set the following gender diversity targets: for both the Executive Board and the Executive Leadership Team at least 30% shall consist of female members, and at least 30% shall consist of male members. Likewise, for the Supervisory Board at least 30% shall consist of female members, and at least 30% shall consist of male members. After the appointment in 2018 of Sarah Kuijlaars as member of the Executive Board, the Executive Board consists of one male (50%) and one female member (50%). With the appointment of Jacoline van Blokland as Chief People Officer, on October 1, 2019, the Executive Leadership Team consists of three female (33.3%) and six male (66.6%) members. The Supervisory Board consists of five male (71%) and two female members (29%). With this Arcadis achieved, or is very close to achieving, its gender diversity targets.

Nationality/geographical provenance –targets & outcome

Arcadis is active in many regions and countries worldwide. Arcadis set the following targets in terms of nationality/geographical provenance. In the Executive Leadership Team, at least three regions where Arcadis is active shall be represented. In the Supervisory Board, at least three regions where Arcadis is active shall be represented. Based on the current composition of the Executive Leadership Team and the Supervisory Board, Arcadis meets these diversity targets.

Background: education and/or (work) experience – targets & outcome

The background target for the Executive Leadership Team requires that at least three members shall have experience in the global design, the engineering and/or the consulting industry or an industry adjacent thereto. Arcadis meets this target as seven members of the Executive Leadership Team have this type of experience. The background target for the Supervisory Board consists of two requirements. The first requirement, which also follows from the Dutch Decree Establishing Audit Committees, is that at least one member of the Supervisory Board shall have a financial background.

As four of the seven Supervisory Board members have a financial background, Arcadis meets this requirement. The second target set by Arcadis requires that at least one member of the Supervisory Board shall have experience in the global design, the engineering and/or the consulting industry or an industry adjacent thereto. This target is also met with five members having this type of experience.

1 For more information about Diversity and Inclusion within Arcadis globally, please see page 51
2 Section 166 of Book 2 of the Dutch Civil Code which was applicable during 2019

Diversity in the Executive Board and the Executive Leadership Team

	Year of birth	Gender	Nationality
Mr. Oosterveer	1957	Male	Dutch
Ms. Kuijlaars	1967	Female	British
Mr. Blokhuis	1967	Male	Dutch
Ms. Van Blokland	1964	Female	Dutch
Mr. Brookes	1961	Male	British
Ms. Hopkins	1965	Female	American
Mr. Mooren	1956	Male	Dutch
Mr. Ritter	1968	Male	German
Mr. Steele	1961	Male	Australian

	International experience	Professional service/ engineering and consulting experience	Legal, Tax and risk management	Finance	Client relationship and external stakeholder management
Mr. Oosterveer	●	●	●		●
Ms. Kuijlaars	●	●	●	●	●
Mr. Blokhuis	●	●			●
Ms. Van Blokland	●	●			●
Mr. Brookes	●	●	●		●
Ms. Hopkins	●	●	●		●
Mr. Mooren	●	●			●
Mr. Ritter	●	●			●
Mr. Steele	●	●			●

Diversity in the Supervisory Board

	Year of birth	Gender	Nationality
Mr. Hoek	1956	Male	Dutch
Mr. Lap	1962	Male	Dutch
Mr. Schönfeld	1949	Male	Dutch
Ms. Markland	1953	Female	British
Ms. Goodwin	1965	Female	Canadian
Mr. Ang	1961	Male	Singaporean
Mr. Putnam	1960	Male	British

	International experience	Professional service/ engineering and consulting experience	Legal, Tax and risk management	Finance	Client relationship and external stakeholder management
Mr. Hoek	●	●	●	●	●
Mr. Lap	●		●	●	
Mr. Schönfeld	●		●	●	
Ms. Markland	●	●	●		●
Ms. Goodwin	●	●		●	●
Mr. Ang	●	●	●		●
Mr. Putnam	●	●			●

For more information about nationality/geographical provenance and the background (education/work experience) of the members of the Executive Leadership Team and the Supervisory Board of Arcadis, please refer to their biographies on pages 136 to 139 respectively.

General meeting of shareholders

At least once a year, Arcadis NV convenes a shareholder meeting. Meetings are convened by the Executive and/or Supervisory Board. Meetings can also be convened at the request of shareholders jointly representing at least 10% of the Company's issued share capital if authorized by the relevant Dutch court. Shareholders who hold at least 3% of the issued share capital have the right to propose an item for inclusion on the agenda. The Company will in principle include the item on the agenda if it receives the substantiated proposal clearly stating the item to be discussed, or a draft resolution, in writing at least 60 days prior to the meeting date.

Each shareholder is entitled to attend shareholder meetings in person or be represented by written proxy and to exercise voting rights with due observance of the provisions in the Articles of Association. Each outstanding share entitles the holder to one vote. Resolutions are adopted by simple majority unless the Articles of Association or the law provide(s) otherwise. Arcadis advocates active shareholder participation at shareholder meetings.

Since 2007, the Articles of Association allow for communication and voting by electronic means. For more information about the powers of the General Meeting as well as the Company's Articles of Association, please visit:

www.arcadis.com/governance

Share capital

The authorized share capital of Arcadis NV consists of ordinary shares, cumulative financing preference shares, priority shares, and cumulative preference (protective) shares, each with a nominal value of €0.02. At year-end 2019, the total number of ordinary shares issued was 89,045,228. Currently, only ordinary shares and 600 priority shares have been issued. See note 25 to the Consolidated financial statements for further details. Priority shares and cumulative preference shares have an impact on the governance of the Company.

Priority shares

The 600 priority shares, held by the Arcadis Priority Foundation (Stichting Prioriteit Arcadis NV), entitle the holder to a right of approval regarding certain important decisions. These include the issuance, acquisition or disposal of shares, amendments to the Articles of Association, dissolution of the Company, as well as certain major co-operations, acquisitions, and divestments.

Pursuant to the articles of association of the Priority Foundation, the Priority Foundation Board is comprised of two members of the Executive Board, one member of the Executive Leadership Team, seven members of the Supervisory Board, and ten members who are Arcadis employees. All resolutions of the Board require a majority of at least 60% of the votes cast, meaning that both employee support and Board support is needed for those far-reaching decisions.

Cumulative preference (protective) shares

Currently, no cumulative preference shares have been issued. However, an option agreement to acquire and transfer such shares has been entered into between the Arcadis Preferred Stock Foundation (Stichting Preferente Aandelen Arcadis NV) and Arcadis NV. The objective of this foundation is to protect the interests of Arcadis, its enterprises, and all of those involved. In the event of any hostile situation, preference shares can be obtained by this Foundation. This would allow the Executive Board and the Supervisory Board time to duly consider the situation and the interests involved. For more information, please see note 25 to the Consolidated financial statements.

Regulations concerning Arcadis securities transactions

Arcadis has put in place regulations regarding transactions in Arcadis securities that apply to all employees unless stipulated otherwise. These regulations also prohibit Executive Board members and (other) members of the Executive Leadership Team from executing transactions in the securities of certain identified listed peer companies, regardless of whether they have inside information or not. Members of the Supervisory Board are required to obtain prior approval from the Compliance Officer if they wish to execute transactions in the securities of such companies.

Financial reporting and role of auditors

Before being presented to the General Meeting for adoption, annual financial statements as prepared by the Executive Board must be examined by an external certified public auditor.

The General Meeting has the authority to appoint the auditor. Each year, the Supervisory Board nominates the auditor for (re-)appointment by the General Meeting, taking into account the advice of the Audit and Risk Committee. The auditor's assignment and remuneration are resolved on by the Supervisory Board, on the recommendation of the Audit and Risk Committee. Prior to publication, the half-year results and reports are discussed with the Audit and Risk Committee in the presence of the external auditors, and subsequently with the Supervisory Board. The (quarterly) results and reports of the first and the third quarter are discussed with the Audit and Risk Committee, in the presence of the external auditors, prior to publication.

The external auditor attends all Audit and Risk Committee meetings and the meetings of the Supervisory Board in which the annual financial statements are to be approved and the year-end audit report of the external auditor is discussed. The Arcadis Auditor Independence Policy contains rules and procedures for the engagement of the external auditor, in order to ensure its independence.

The Audit and Risk Committee annually reports to the Supervisory Board on the functioning of the external auditor and the relationship with the external auditor, whilst giving due consideration to the Executive Board's observations. The desirability of rotating the external auditor's lead partner is also evaluated. In 2014, PricewaterhouseCoopers Accountants NV was appointed as the new auditor for the financial year 2015. PricewaterhouseCoopers has been reappointed by the General Meeting every year since then. The lead partner was changed in 2017 due to retirement.

Arcadis has an internal audit function which operates under the responsibility of the Executive Board, (with lines to the CEO, CFO, and the Audit and Risk Committee). The role of the internal audit function is to assess the design and the operation of the internal risk management and control systems. The scope of work of the internal audit function is regulated in an Internal Audit Charter. In line with the Corporate Governance Code, both the appointment and dismissal of the Head of Internal Audit shall be submitted to the full Supervisory Board for approval, with a recommendation issued by the Audit and Risk Committee. In line with the Corporate Governance Code, the Executive Board, the external auditor and the Audit and Risk Committee are involved in the preparation and approval of the annual internal audit plan. The annual internal audit plan is submitted to the Executive Board and Supervisory Board for approval. Internal Audit Reports are discussed with the Executive Board and with the Audit and Risk Committee in the presence of the external auditor.

Compliance with the principles and best practice provisions of the Corporate Governance Code

Arcadis applies the principles and best practices of the Corporate Governance Code, except for the following and for the reasons set out below:

4.3.3: In 2003, the Articles of Association of the Company were amended to abandon the structure regime. At that time, provisions were included in the Articles of Association that prescribe that binding nominations for the appointment or dismissal of members of the Executive and Supervisory Board can only be overruled by the General Meeting by a qualified majority rather than an absolute majority. This was done in view of the percentage of share ownership of the Lovinklaan Foundation. As the percentage of share ownership of Lovinklaan is still significant (18.2% on 31 December 2019, see page 88), the reasons for this deviation are still applicable and the deviation is expected to continue to apply as long as Lovinklaan has a significant ownership.

It was further stipulated that nominations to the Executive Board would normally be binding, whereas nominations to the Supervisory Board would, under normal circumstances, be non-binding. The General Meeting explicitly approved this practice in 2003 by adopting the resolution to make the related amendments to the Articles of Association.

Relevant documents on corporate website

- Dutch Corporate Governance Code (version 2016)
- Arcadis NV Articles of Association
- Executive Board and Executive Leadership Team Rules
- Regulation Supervisory Board
- Diversity Policy for the Executive Board and the Executive Leadership Team of Arcadis NV
- Diversity Policy Supervisory Board
- Regulations regarding transactions in Arcadis securities
- Arcadis policy on bilateral contacts with shareholders

www.arcadis.com/governance

Enterprise Risk Management

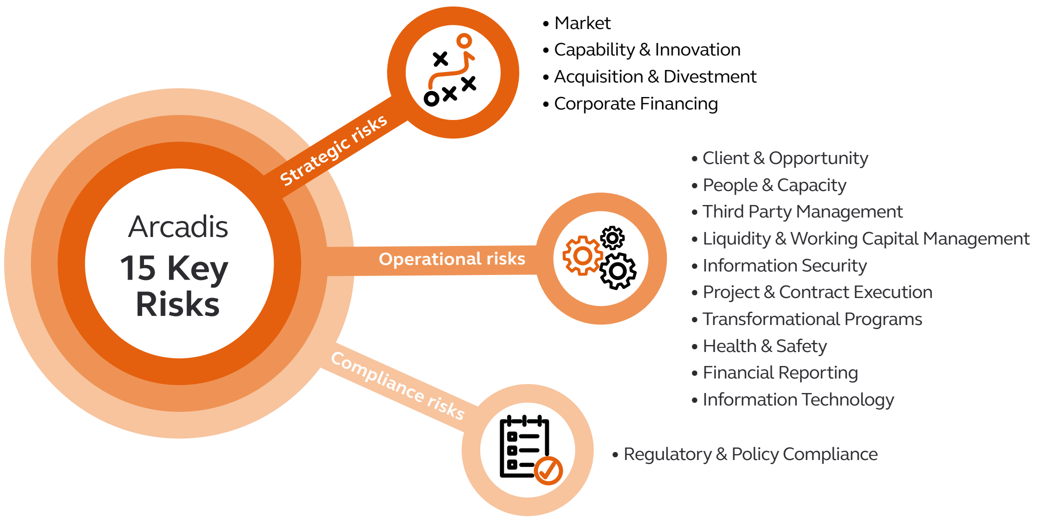
Exposure to risk is unavoidable in pursuit of Arcadis' strategy. Well controlled risks can present new opportunities, resulting in value creation, however, uncontrolled risks can hinder the achievement of long-term strategic objectives and Arcadis' ability to succeed. Arcadis' risk and control framework enables a culture of risk awareness across the organization by identifying risks and defining controls which mitigate or manage these risks in line with Arcadis' risk appetite. It helps Arcadis' leadership identify, evaluate, communicate, and address risks.

The Changing Risk Universe

Arcadis' Executive Board is responsible for maintaining a comprehensive system of risk management and internal control, and for regularly reviewing its effectiveness. Each year the Executive Board performs a review of Arcadis' risk universe and the risk and control framework and makes adjustments as conditions change. Following this review, the Arcadis Risk & Control Framework (the ARC Framework) is updated and communicated to the wider leadership team.

The ARC Framework identifies fifteen key risks, divided into three risk categories – Strategic, Operational and Compliance. It includes the business controls which are supported by policies, standards, procedures and guidelines, all of which target risk mitigation in accordance with Arcadis' risk appetite and the successful pursuit of the three pillars from Arcadis' 2018-2020 strategy: People & Culture, Innovation & Growth and Focus & Performance. ARC is the cornerstone of Arcadis' risk management approach and supports Arcadis in embedding a more risk conscious way of working in all layers of the organization.

Following its introduction in 2018, Arcadis further embedded the ARC framework into how it does business, managing its risk exposure in accordance with its risk appetite whilst remaining competitive in a rapidly evolving business environment. This has allowed the company to evolve business models in line with our risk appetite, execute on the Top 10 priorities in a controlled manner and experience less surprises in business performance.



Risks at a glance – the Arcadis Risk and Control Framework

Risk Area	Risk	Risk Description	Business Impact	Trend	Risk Appetite
Strategic	**Market**	The risk that market developments have an adverse effect on Arcadis' growth	Not meeting revenue and profitability targets set in business plans	Stable	Medium–High
	Capability & Innovation	The risk that the knowledge and technical capability and capacity of Arcadis' employees does not always match prevailing market needs and that Arcadis is not developing or applying new, innovative solutions for the market effectively	Lack of presence in growth sectors of the market and inability to replace obsolete service offerings	Stable	Low–Medium
	Acquisition & Divestment	The risk that acquisitions do not deliver the intended return on investment or that assets to be divested are not divested in a timely fashion, for the right values	Value destruction, negative impact on profit, deterioration of employee morale	Stable	Low–Medium
	Corporate Financing	The risk of having inadequate access to capital from external sources	Inability to invest in organic growth or business acquisitions	Stable	Low
Operational	**Client & Opportunity**	The risk that too large a proportion of net revenue comes from a small group of clients and/or that an insufficient number of strategic pursuits are converted to profitable wins	Growth in revenue falls short of business objectives or declines	Stable	Low–Medium
	Project & Contract Execution	The risk of underperformance in the delivery of projects	Shortfalls in project financial results (multipliers/margins, cash collection), dissatisfied clients, and legal claims against Arcadis	Stable	Low–Medium
	People & Capacity	The risk that the business has insufficient talent to win and deliver client projects and to lead the business to achieve its fullest potential	Ineffective delivery of projects, management of operations and leadership of the business	Stable	Low
	Transformational Programs	The risk that major change programs are not delivered effectively or cost efficiently	Impedes the achievement of business objectives including growth, collaboration, and operational efficiency	Increasing	Low
	Third Party Management	The risk of inadequate performance by third parties (e.g. suppliers, agents, sub-contractors, joint venture partners, equity partners)	Financial performance negatively impacted; disruption to business operations; reputational damage	Stable	Low
	Health & Safety	The risk of health and safety incidents which adversely affect Arcadis' people or the business	Harm to employee(s), personal liability, financial loss and reputational damage	Stable	Averse
	Liquidity & Working Capital Management	The risk that the business has insufficient Free Cash Flow to fund its operations and stay within acceptable debt ratios	Inability to pay liabilities, including suppliers and payroll, on time	Stable	Low
	Financial Reporting	The risk that the financial statements contain material misstatements	Loss of confidence in the accounts by key external and internal users	Stable	Averse
	Information Security	The risk that confidentiality, integrity and availability of data is compromised due to cyber-attacks	Loss of critical business information or availability of systems leading to financial losses and/or reputational damage	Increasing	Low
	Information Technology	The risk of critical IT systems being unavailable or having restricted availability to the business	Financial loss due to business disruption; inability to support the business with providing its services in an effective and efficient manner	Stable	Averse
Compliance	**Regulatory & Policy Compliance**	The risk of non-compliance with statutory laws and regulations in applicable jurisdictions in which Arcadis operates or with Arcadis' internal authority schemes and other company standards, policies or guidelines	Fines, claims, reputational damage and negative effect on Company culture	Stable	Averse

Increasing Stable Decreasing Averse Low Medium High

Responsibility for risk management

In addition to creating and maintaining an internal risk and control system, the Executive Board is responsible for ensuring that such a system is integrated and embedded into the way Arcadis works. The Executive Board is supported in this by the ELT members. In order to strengthen risk oversight at a functional level, each ELT member is given overall responsibility for one or more of the fifteen key risks in the ARC Framework.

The Risk Management function, headed by the Chief Risk Officer (CRO) and supported by a Corporate Risk Management team and Regional Risk Managers, provides guidance and assistance to the Executive Board. This includes active participation in Pursuit Committees and project reviews, carrying out Project Deep Dives, driving risk awareness across the organization and supporting the assessments of the operation and effectiveness of the ARC Framework in the regions (see below 'Arcadis Risk Assurance Program').

The Risk Management function provides both risk assurance and proactive risk support to the business. In 2019, Risk Management has stepped up its contribution to the business through playing an increasingly active role in Pursuit Boards to ensure that the selection of clients and opportunities is in line with the strategy. Additionally, Risk Management engaged with Senior Leadership across the organization to identify, evaluate and mitigate enterprise risks. Leadership was also supported in identifying and assessing risks in the new delivery models that emerge as a result of the execution of Arcadis' digital roadmap activities.

The quarterly Risk Management Committee, chaired by the Chief Financial Officer (CFO), advises the ELT and the Executive Board on strategic, operational and global risk matters in the context of Arcadis' risk appetite. It assesses from time to time whether Arcadis has identified and mitigated or managed known and emerging risks to ensure that robust risk management is in place across Arcadis. The Chair nominates the other members of the Risk Management Committee, to include (at least) five members: Senior Business Representative(s) from one or more regions, Arcadis NV General Counsel, Head of Internal Audit, Group Executive Project Services and the CRO. Their appointment is confirmed by the Executive Board/ELT.

Risk appetite

The ARC Framework balances risk and opportunity and clearly sets out the Executive Board's appetite for risk. To facilitate the communication of the risk appetite to the business, Key Risk Indicators, based on both qualitative and quantitative metrics, were developed for each of the fifteen key risks.

The Key Risk Indicators are monitored on a periodic basis to provide an early warning as to where exposure to risk may be exceeding appetite. Where exposure is outside of appetite range, existing controls may have more focus placed on them, alternatively the introduction of additional or revised controls may be considered. The Key Risk Indicators are reported to both the ELT and Audit and Risk Committee on a quarterly basis.

Arcadis' risk appetite changes over time reflecting developments in society, legislation, geopolitics, the client landscape and changes within Arcadis.

Risk management in action

Arcadis follows a three-line defense model. The operating entities are the first line of defense, embedding risk management as a formal part of all major decision making via tools such as risk registers, project watch lists and client and project Go/No Go assessments.

The Risk Management function is part of the second line of defense along with other enabling functions including Human Resources, Legal, Health & Safety, Compliance & Privacy, Finance and Information Security. These functions assist and support the first line of defense with identification and analysis of key risks (including the likely impact and probability of the risks arising), mitigation of risk through the introduction of policies, standards, procedures and guidelines, providing training and awareness, and with the periodic assessment of the design and operating effectiveness of risk mitigating controls. The function is led by the CRO, reporting directly to the CFO with a dotted line to the Group Executive Project Services. This allows the function to retain appropriate focus on project risks and financial reporting risks.

Arcadis' Internal Audit function provides the third line of defense. Its role is explained in more detail on the next page.

Arcadis' Risk Assurance Program

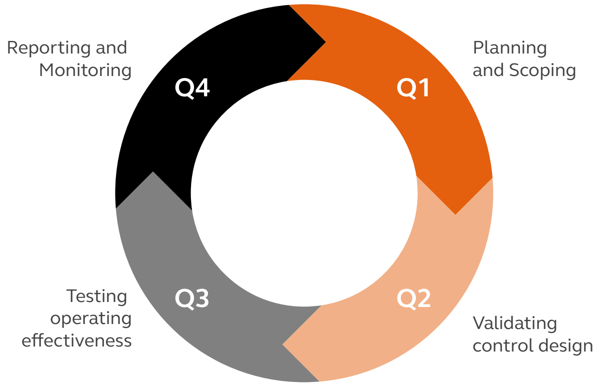
A key part of Arcadis' risk management process is the Risk Assurance Program which is designed to periodically and systematically assess whether the controls, as defined in the ARC Framework, are designed and operating effectively across the regions. Controls found not to be designed or operating effectively are remediated.

The Risk Assurance Program provides for a continuous annual cycle for testing the design and operation of the controls to ensure that the key risks are being effectively mitigated or managed.

The Risk Assurance Program operates at both a corporate and regional level with each region reporting the results of its annual assessment at the end of the financial year to the CRO and Group Controller.

Attention is given to observed weaknesses, instances of misconduct and irregularities, indications from whistle blowers, lessons learned and findings and recommendations from the internal audit department and external audit firm.

Phases of the Risk Assurance Program



The Risk Assurance Program helps identify new and evolving risk causes which require the design of controls to be updated and/or strengthened. These changes will be actioned and communicated by Corporate Risk Management. Where remediations of the controls by the regions or functions are identified, these are captured in a tracker. The tracker is periodically monitored by Corporate Risk Management to ensure that the remediations are being actioned. Risk Management is working to further improve the clarity of these actions to ensure that they are specific and time-bound.

Each Regional CEO and CFO is required to sign off an annual Letter/Document of Representation (DOR), which is addressed to the Group CEO and CFO. In addition, each ELT member is required to develop and sign off a Functional DOR in respect of the key risks in their areas of responsibility. They are supported in this by relevant functional leaders and Corporate Risk Management. The DORs include a statement regarding the design and operating effectiveness of controls.

Based on the Regional and Functional DORs, Arcadis NV issues a DOR (including an In Control Statement) to the external auditor.

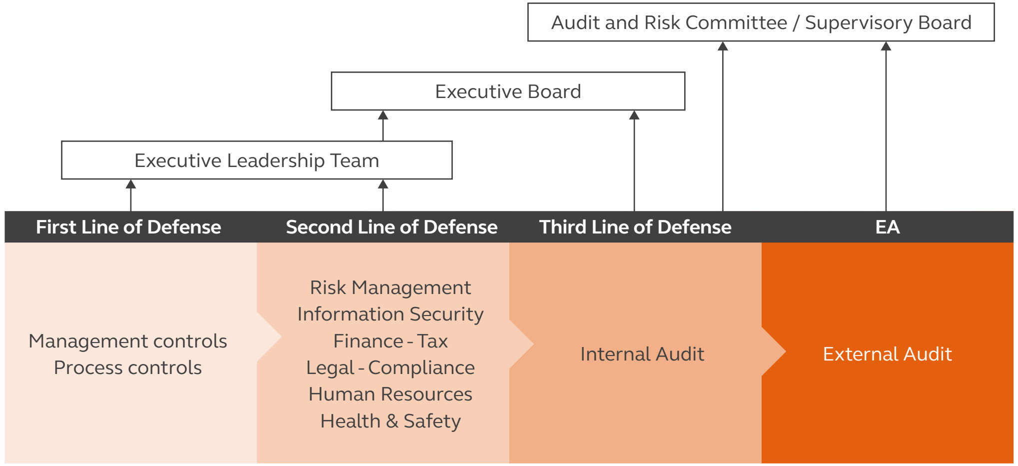
Internal Audit

Arcadis' Internal Audit function acts as the third line of defense and operates under the responsibility of the Executive Board. Its objective is to enhance Arcadis' performance through assurance.

The Head of Internal Audit has direct access to the Executive Board, Chairman of the Audit and Risk Committee and is a permanent invitee to the Audit and Risk Committee meetings.

The priorities for Internal Audit are defined in a dialogue with the ELT and the Audit and Risk Committee and are approved by the Executive Board and the Supervisory Board. They are based on the results of an overall risk assessment of Arcadis which focuses on the main risk management and internal control systems and the Top 10 strategic priorities of the organization. Additionally, the Internal Audit plan is discussed with the external auditor. Ongoing interaction exists between Internal Audit and the external auditor regarding the progress of execution of the plan and main results. The audit plan is reassessed quarterly against changes in the overall risk environment of Arcadis. The audits of Internal Audit are aligned with the second line functions.

Three lines of defence



In 2019, Internal Audit completed its audit plan and conducted all scheduled audit engagements. It continued to focus its activities on the Arcadis Way and the transition of the organization to Oracle ERP Cloud, including ongoing assessments of effective embedment of risk management and segregation of duties in Oracle. Process audits in operating entities and on global themes across regions were undertaken. Internal audit also performed audits of health and safety in certain operating entities.

During 2019, Internal Audit observed that there were some deficiencies and areas for improvement, however, these do not materially impact the finding of the overall effectiveness of the risk and control systems. The main reportable observations were around the roll-out of Arcadis Way in the North America and Australia Pacific regions made in pre go-live reviews in both regions.

Observations and recommendations as reported by Internal Audit are submitted to management of the operating entities or global functions including appropriate regional leadership and reported quarterly to ELT members. Regional leadership is responsible for executing and monitoring the progress of remedial measures put in place to mitigate and manage the reported risks.

The EB and Audit and Risk committee receive, on a quarterly basis, the results of audits and activities as performed by Risk Management, Internal Audit and the external auditor (PwC), and the main results and progress on actions are discussed. The role of the Audit and Risk Committee includes monitoring the progress of management follow up as a result of audits.

Main risks table

Strategic risks

Market risk

Arcadis continues to operate in a competitive market that is exposed to economic cycles, geopolitical shifts, societal and legislative change and the consolidation of both competitors and client supplier bases. In 2019, global trade and geopolitical events impacted global investment flows. Another concern is the decline in forecasted global economic growth through to 2021.

Specific risk-mitigating actions in 2019

1. Focus on strengthening relationships with key clients continued to be a fundamental element of Arcadis' market strategy.
2. Arcadis continues to re-evaluate regional portfolios focusing on markets where it has a strong position.
3. Significant progress in the delivery of the digital agenda better positions Arcadis to succeed in the current market, including digitalization of solutions, training of employees and investing in internal and external innovation. This has allowed Arcadis to maintain competitiveness in traditional markets and increase competitiveness in non-traditional markets.
4. Regional leadership has focused on key client relationships to broaden the scope of what we offer our key clients. Growth in this respect is made possible by Arcadis further strengthening collaboration across markets.
5. Effective scenario planning has allowed Arcadis to successfully predict and navigate the impact of specific market events.
6. In each region, leadership has retained a focus on diversification into new markets and, where appropriate restructured to ensure a focus on areas of high growth.

Risk Appetite: Risk Trend:

Further activities planned for 2020

Arcadis will retain a focus on implementing its current strategy. Additionally, emerging market risks will be considered in the development of a new strategy in 2020.

Capability & Innovation

Market needs are rapidly changing. Arcadis is aware that it must innovate based on the changing market demands and not based on its existing capabilities. It is developing the knowledge and the technical capability of its people to match those market needs. The evolution of Arcadis' business helps it to maintain a sustainable future, but this is being achieved quickly and it must maintain a comprehensive understanding of what is needed to achieve this transformation, and by when.

Specific risk-mitigating actions in 2019

1. Arcadis strengthened its digital offering by the acquisition of EAMS (building on the acquisition of SEAMS in 2018) which represents a significant step in its ambition to become a digital frontrunner and an innovation leader. This not only leads Arcadis into entering new services but also to rethink its service delivery across all of its solution offerings.
2. In continuation of last year's global 'Deep Orange' event, and with design thinking becoming a key element in the way Arcadis works, 'Sprint Orange' was introduced as part of the client experience. 'Sprint Orange' is a local design thinking innovation program which allows Arcadians to co-create with clients and partners to design digital solutions to support their business needs.
3. With the support of the Lovinklaan Foundation, Expedition DNA, an online program, enables all Arcadians to act upon digital client opportunities in an effective manner. It also facilitates the company to staff teams effectively when it comes to projects that require an innovative mindset and digital capabilities. Over 10,000 Arcadians to date took part in Expedition DNA in 2019, which highlights a desire on the part of many Arcadians to self-develop and contribute to Arcadis' digital journey. Further embedding a digital culture, Hike DNA, a course for continued development of digital capabilities, was launched in the UK.
4. Arcadis continued the digitalization of core solutions including Cost and Commercial Management, Design and Engineering, Environmental remediation and Project Management. A core element of this journey is increasing digital capabilities within GECs. What started as a global initiative is now being driven by solution leaders where each is responsible for digitalization of their core service.
5. As part of Vision 2030, Arcadis defined a roadmap which positions the company with both clients and employees as a consultant and employer of choice. Being an employer of choice helps to retain and attract talent with key digital skills.
6. Working with the startup accelerator, Techstars, Arcadis continued its global program aimed at identifying and developing innovative start-ups to transform the natural and built environment.
7. The design and implementation of an innovation framework has allowed Arcadis to bring ideas to the market quickly via its Global Design Studio. Ideas are efficiently moved through checkpoints assessing feasibility, viability and desirability prior to their potential being released with its clients.
8. Recognizing the key role technology plays in the development and delivery of its services and products, the position of Chief Technology Officer (CTO) was created.

Risk Appetite: Risk Trend:

Further activities planned for 2020

In January 2020 Arcadis launched Arcadis Gen, the new digital business from Arcadis, SEAMS and EAMS Group. Arcadis' digital capability and committed approach to innovation and product development will be a core component of the renewed strategy to be defined in 2020. Arcadis will increase its focus on demonstrating its digital capabilities in what they do.

Increasing Stable Decreasing Averse Low Medium High

Acquisition & Divestment risk

In 2019, Arcadis did not undertake any large mergers or acquisitions, but chose to focus on the organic growth of the global organization. It added some strategically significant companies to its portfolio, with a focus on adding value through increasing its digital competencies.

Specific risk-mitigating actions in 2019

1. Arcadis continued to cautiously look at smaller investments, applying a diligent process for reviewing targets and assessing added value. Arcadis includes in its review the ability to finance acquisitions and the managerial capabilities required for integration.
2. Arcadis continues to carefully monitor the integration and value creation of past acquisitions with a formal review of past acquisitions after one and three years. It applies lessons learned when integrating subsequent acquisitions.
3. Arcadis retained its focus on increasing its technological ability through the acquisition of EAMS, a company specialized in optimizing asset management through the use of big data.
4. Divestment of small non-core entities to allow Arcadis to focus on core markets and opportunities.
5. In Q4 2019, Arcadis decided to stop investing in the ALEN associate to allow leadership to focus fully on the path of long-term value creation.

Risk Appetite: Risk Trend:

Further activities planned for 2020

Arcadis will continue to review its portfolio in certain regions which may lead to exiting certain markets and sectors to reduce its overall risk profile. In 2020, Arcadis will continue to seek smaller strategic investments.

Corporate Financing risk

Debt capital markets remained strong in 2019. Arcadis' ability to access capital from external sources remained good. On-going discussions with existing and potential lenders are being held to maximize financing flexibility for the group. The corporate guarantees issued by Arcadis NV in relation to the credit facilities provided to ALEN may impact the relevant bank covenant ratios if these guarantees were called by the respective lending banks, increasing the Senior Leverage ratio by a maximum of +0.4.

Specific risk-mitigating actions in 2019

1. Scenario analyses were performed on debt capacity to ensure that the company is properly considering financing headroom on a continuous basis. The resilience of Arcadis' financing structure has improved as a result of further deleveraging. Arcadis has sufficient headroom in its committed credit facilities to absorb negative surprises such as the timing effects of cash collections due to the implementation of Oracle in the ANA region and the possible future cash impact of the payment of ALEN guarantees.
2. In Q1, the process to refinance a part of the Arcadis relationship bank debt and extend maturity to 2024 was concluded. This is decreasing the refinancing risk of these credit facilities for the next 5 years.
3. Quarterly Treasury reporting to the Executive Board has been established, including measurement of Key Risk Indicators, ensuring the company fulfils its corporate financing strategy and adheres to its financial covenants.
4. Included in the loan portfolio are loans that are linked to Environmental, Social and Governance (ESG) metrics, further stimulating the sustainability efforts of Arcadis.

Risk Appetite: Risk Trend:

Further activities planned for 2020

Arcadis will continue to actively review the level of diversification and maturity of the existing debt portfolio, in line with market conditions and risk appetite.

Continued sensitivity analysis will be performed to provide insight into the impact of material changes, such as business underperformance, the financial impact of acquisitions and divestments, and/or an increase in net working capital.

Increasing Stable Decreasing Averse Low Medium High

Operational risks

Client & Opportunity risk

Client buying patterns are changing. Clients are looking for integrated thinking to solve complex problems in a sustainable way and are increasingly transferring risk to their supply chain. Reflecting this trend, engagement by contractors and public/private partnerships, whose own clients have procured services on a design and build basis, has gradually increased. This trend and other market forces have resulted in increased exposure to Client & Opportunity risk.

Specific risk-mitigating actions in 2019

1. A globally consistent approach to sales and business development allows the company to seamlessly link its efforts to other strategic initiatives e.g. MEPC, sustainability and the digital agenda. This global approach has allowed Arcadis to create a culture that reflects its risk appetite in this regard.
2. Arcadis' focus on its top 250 local, regional and global key clients, ensures that it works with clients who have a good business fit and alignment. This, combined with the development of client account plans, has been fundamental in the company transitioning from opportunistic to strategic in its sales efforts.
3. The client and opportunity Go/No Go process was strengthened which has resulted a uniform global approach to client and opportunity selection. The Go/No Go process is not just focused on profitability but also other factors including payment behaviors of clients, social and environmental concerns.
4. Pursuit Boards involve senior stakeholders, creating better focus on pursuits by ensuring that pursuit leaders on strategic and high value opportunities have access to Arcadis' world-class experts, best in class experience and knowledge. By connecting the right people to the right opportunities, Arcadis is managing risk from the bid stage in the project lifecycle for the benefit of its own performance and its client outcomes. Within the Pursuit Boards, win themes are identified that increase Arcadis' win and capture rates.
5. The creation of a Pursuits and Enablement team in the GEC provides sales excellence to the Arcadis bid process.
6. Regions have developed formalized bid models that allow a consistent focus on pricing and profitability.

Risk Appetite: Risk Trend:

Further activities planned for 2020

A further focus on the Top Client program will see a concentration of sales efforts in the Top 200 clients. The Oracle Sales Cloud platform will be further exploited to provide increased analytics of opportunity management and the sales pipeline. Client Focus Academies will be held to certify Arcadis Account Managers.

Project & Contract Execution risk

Arcadis experiences a variety of risks in project delivery including service delivery quality, project management, commercial terms and the impact of external events on project performance. The risk of underperformance in the delivery of client projects has continued to increase slightly due to the on-going trend of clients transferring risk into the supply chain. Arcadis' project teams have to be able to respond to changing demands and risk profiles on traditional projects and teams are increasingly involved in client projects with new contract types and alternative delivery models.

Specific risk-mitigating actions in 2019

1. As part of the Make Every Project Count (MEPC) initiative, 60 maturity assessments were carried out globally, involving over 1,000 Arcadians. The participants critically evaluated progress against action plans formed in workshops in 2018 to improve project performance.
2. A formal process to facilitate early intervention into projects that are performing below expectations was further rolled out in 2019. Project managers and line managers receive a report detailing projects which could become loss making. If required, a structured support program is provided. This initiative has led to a cultural change with better project performance and less negative surprises.
3. Training was delivered to leadership of the most significant segments around alternative delivery models and guidance related to alternative delivery models was introduced and implemented in the regions.
4. The Arcadis Way of project management has been further embedded into the business allowing projects to benefit from mandatory control points within the project lifecycle.
5. The 'Line Management Experience' online training was introduced and will serve as a building block for better project execution by strengthening managers' skills and facilitating their growth.
6. Project manager networks have been set up in several regions to share lessons learned across business lines and solutions and to provide coaching and mentoring of junior project managers.

Risk Appetite: Risk Trend:

Further activities planned for 2020

MEPC Maturity assessments will be continued and improved. MEPC now moves from being a business initiative to a fundamental element of the way Arcadis works. Data analytics on projects and the project performance dashboards will also be further improved, providing more predictive tools and better integrating the bid-process and project execution phases in the project lifecycle. Arcadis will strengthen the hand-over process from bid teams to delivery teams.

Increasing Stable Decreasing Averse Low Medium High

People & Capacity risk

Effective delivery of projects and strong leadership of Arcadis is dependent on attracting a diverse workforce and retaining employees with the appropriate competencies. Retaining sufficient talent with such competencies against the background of rapidly changing needs and the 'war for talent' continues to present a challenge. Providing opportunities for employees to develop new competencies is key to Arcadis' success, particularly as it becomes more digital, client needs evolve and new competitors come into its traditional markets.

Specific risk-mitigating actions in 2019

1. The performance management framework, 'Grow Perform Succeed', which was implemented globally continues to provide more frequent and meaningful performance conversations, focused on the future, employee growth and career development. This promotes a growth mindset where employees are encouraged to develop their skills to suit the changing market demands. The program has helped develop a more feedback-oriented culture with continuous quality dialogue between employees and their line managers.
2. Academies remain at the heart of development of professional competence needed to differentiate Arcadis in the marketplace and achieve strategic aims. The Digital Academy, Client Focus Academy, Program Management Academy and Project Management Academy continued to be well attended by Arcadians globally.
3. A framework for the foundation of being the employer of choice was created. This allows each region to focus their people initiatives on becoming a 'best' place to work in their respective locations. The framework will be used for continual progression of being a better employer.
4. The 'Line Management Experience' program was launched. It ensures a more consistent approach to managing staff globally by equipping line managers with the right skills to maximize employee engagement.
5. Arcadis has increased focus globally on diversity and inclusion. Regions created specific diversity and inclusion plans.
6. Arcadis remains committed to becoming increasingly agile in how it listens to employees and responds to feedback, with greater opportunities for engagement through shorter, more frequent employee engagement surveys. Additionally, the culture of open dialogue between leadership and the employees is set from the top of the company with all employees able to ask the ELT questions through the online portal "Ask Me Anything".
7. With the support of the Lovinklaan foundation, Arcadis continues to help Arcadians grow and reach their full potential personally and professionally through the Quest and Global Shapers programs. Quest is an international transfer program that focuses on connecting Arcadians from all over the world. The Global Shapers Program helps shape the future leadership of the company by providing 100 early career professionals the opportunity to improve Arcadis, create more international connections and share knowledge.

Risk Appetite: Low | Risk Trend: Stable

Further activities planned for 2020

A new employee engagement platform, 'Your Voice', will be launched globally. 'Your Voice' focuses on increased communication between leadership and staff and ensures that Arcadis will be able to continually hear and act on its staff's opinions across the globe. Regions will implement the 'Line Management Experience' program specific to the needs of their workforce. All regions will adopt a more focused and disciplined approach to implement initiatives in order to be the 'best' place to work.

Arcadis will also focus on talent development – looking at the leadership pipeline and taking a more proactive approach to succession planning as well as defining an approach to attracting top talent in particular talent pools, such as digital.

Transformational Programs

Transformation programs are established to deliver strategic aims and objectives. However, Arcadis recognizes that there are potentially negative impacts that require managing which are related to the disruption they can cause if not handled well. For instance poor communication across such a highly distributed business or too many initiatives may negate or reduce the intended positive impact they bring, with people potentially becoming confused, disengaged or distracted from their day-to-day activities.

Specific risk-mitigating actions in 2019

1. The Top 10 Priorities continue to be the fundamental driving force behind Arcadis' business transformation. The Enterprise Program Management Office (EPMO) focuses on shaping the Top 10 Priorities into an aligned program of projects with a carefully phased implementation to avoid overburdening the regional businesses.
2. The EPMO brings four capabilities:
   - I. The establishment of a formal change management methodology to harmonize the approach in all regions.
   - II. A benefits management framework to ensure that planned business outcomes are met.
   - III. A planning and scheduling framework that resolves and reconciles all key dependencies and inter-dependencies that may be overlooked in such a decentralized business.
   - IV. A reporting framework that brings transparency over execution; allowing the Executive Leadership Team (ELT) and senior leadership to 'course correct' as necessary.
3. Arcadis has improved its capability to implement change across the business resulting in a more agile organization.
4. In the second half of 2019, Arcadis experienced challenges in the implementation of the Oracle Cloud solution in North America resulting in a delay in billing and subsequent cash generation. Following this, the Arcadis Way leadership team was strengthened, and a new governance & program management approach was implemented for the remaining regions. This allowed Arcadis to achieve improved predictability, program transparency and leadership to make better informed decisions.
5. Arcadis redeveloped its sustainability strategy to not only reduce its own environmental footprint but also to increase its community development contribution and integration of sustainability in all client projects.
6. Arcadis continues to make sustainability a priority in its business transformation strategy. The Arcadis CEO, Peter Oosterveer, was appointed as an Executive Committee member of the World Business Council for Sustainable Development (WBCSD) in November 2019.

Risk Appetite: Low | Risk Trend: Increasing

Further activities planned for 2020

Arcadis plans to mature and strengthen the selection process of the top transformational programs by only selecting programs that best align with Arcadis' strategy. Management of the portfolio of change programs will allow for prioritizing the right projects and programs to fulfil the Arcadis strategy.

The staged roll-out of Arcadis Way will continue and benefits will be sought from lessons learned from previous implementations. The implementation timelines will be continuously revisited to mitigate the risk of significant impact to the business.

Increasing | Stable | Decreasing | Averse | Low | Medium | High

Third Party Management risk

Inadequate performance by third parties (e.g. suppliers, agents, sub-contractors, joint venture partners, ecosystem partners) can negatively impact financial performance, disrupt business operations and result in reputational damage. Arcadis strives to appoint third parties which are financially stable, and which align with Arcadis' business principles and core values. Client and market awareness of the potential risks of poor third-party management and the impact it could have on projects is increasing, therefore clients are looking in more detail at the measures and controls that Arcadis has in place regarding this risk.

Specific risk-mitigating actions in 2019

1. Arcadis has updated its standard on engagement with third parties, which in combination with the ARC Framework sets out minimum standards for the selection and evaluation of third parties (due diligence) and the contracting and governance requirements.
2. A third-party due diligence initiative, focused on a more consistent global approach, which included a new standard on engaging or collaborating with third parties, was further developed and driven to completion. The updated standard has an increased focus on assessing the compliance of third parties with standards similar to our General Business Principles.
3. In addition to local joint venture guidance, global guidance, including on arrangements during the discussion phase (pre-JV contracting) was made available. Arcadis also refreshed processes around the use of, and reporting of, agents.
4. In selected regions, supplier pre-qualifications have been performed to ensure consistency in selection and allow the company to be agile to client requirements.

Risk Appetite: Risk Trend:

Further activities planned for 2020

The Procurement function will continue to work with Arcadis' system implementation partner to develop cloud-based modules covering supplier pre-qualification/due diligence, e-sourcing, supplier self-service portal, contract creation and performance management which will eventually replace legacy systems and create a global standard approach. These will be rolled out to the regions as they move onto the Oracle ERP Cloud platform and bring all regions onto the same third-party management platform. The supplier diligence and decision-making process will be automated where possible.

Health & Safety risk

Arcadis' core business, regions and activities have remained substantially the same in 2019 and from that perspective the risk of health and safety incidents occurring has not significantly altered this year. Due to the increased focus on the opportunity Go/No Go process, health and safety concerns on potential projects are being raised at a much earlier stage. This enables the health and safety function to more consistently provide input and for health and safety controls to be fully scoped and priced into projects.

Specific risk-mitigating actions in 2019

1. Regional employee well-being programs were implemented with achievement of the planned objectives forming part of the KPIs for each region.
2. Health and Safety is integrated into the global risk management tracker so that all actions identified during health & safety audits or regional Health and Safety self-assessments are tracked to ensure prompt and adequate follow-up.
3. Health and Safety was integrated into the internal audit plan which provided an independent view reported to the ELT, Audit and Risk Committee and Supervisory Board.
4. The number and type of engagement activities available were expanded substantially in 2019 to support more robust leadership engagement in the Health & Safety program.

Risk Appetite: Risk Trend:

Further activities planned for 2020

Current health and safety initiatives will be maintained in 2020, their objectives updated and implemented with a focus on maintaining historically low injury rates. Arcadis will continue to drive improvement in its proactive health and safety culture by driving leadership engagement and employee participation, supported by the health and safety KPIs for the most senior leaders.

Increasing Stable Decreasing Averse Low Medium High

Liquidity and Working Capital Management risk

Insufficient free cash flow could prevent Arcadis from being able to fund its operations. The Total Leverage Ratio continues to decrease, with ongoing close monitoring of EBITDA performance and composition of net debt.

Specific risk-mitigating actions in 2019

1. Regional cash targets were provided on a quarterly, instead of bi-annual, basis. This led to improved cash visibility and further improved Arcadis' liquidity position.
2. A renewed Working Capital manual which is closely aligned with the Arcadis Way enforces efforts to improve working capital management and ensures that responsibility is taken by the Project Management and Client Relationship communities, as well as regional leadership.
3. Increased granularity in the reporting of overdue receivables to leadership enabled the collection progress to be tracked and allowing for intervention where necessary.
4. The Group Treasury Policy was reviewed, and an update was approved by the Executive Board and ELT. This update ensured that the policy remains in line with the current business environment.
5. A leverage sensitivity test was performed to ensure that the company is monitoring possible liquidity impacts. This allows the organization to absorb negative surprises, such as the timing effects of cash collections due to the implementation of Oracle in the ANA region and the future cash impact of the possible payment under the ALEN guarantees.

Risk Appetite: Risk Trend:

Further activities planned for 2020

There will be a continued focus on overdue and aged receivables, including additional reporting and analysis from Corporate Finance provided to company management for their consideration.

In addition to the regular project management principles, cost and cash management is one of Arcadis' Top 10 Priorities. A focus on improved cash collection, improving cost management and a better understanding of commercial terms, as well as the technical outcomes of projects is inherent in the way Arcadis works.

Financial Reporting risk

As a globally operating publicly listed company, Arcadis is required to comply with financial reporting requirements. Material misstatements in reporting could significantly affect Arcadis' reputation and/or its stock market value which in turn may result in shareholder issues. It is critical that all operating entities report to the same standards and deliver the same transparent, high quality of reporting, in line with accounting and reporting principles applicable to Arcadis N.V. (IFRS as adopted by the EU). Arcadis now reports in line with IFRS 16 and IFRIC 23 which came into force as of 1 January 2019. Arcadis continues to work towards ensuring compliance with new and amended IFRS standards and interpretations. PwC continues as statutory auditor for the majority of Arcadis' operating entities. The Independent Auditor's Report on page 262 reflects the significant financial reporting risks as identified by the external auditor.

Specific risk-mitigating actions in 2019

1. Continuous monitoring of upcoming and effective changes in accounting and/or reporting standards, laws and regulations, and periodic discussions of comprehension and compliance with senior finance leaders and supervisory functions.
2. Dedicated project team at headquarters and local subject-matter experts to ensure the implementation of IFRS 16, including the release of online guidance, training and policies and audit procedures by the external auditor.
3. Further development of standardized financial reports and management information with the use of, amongst others, Business Intelligence tools linked to our ERP systems.
4. Cross functional collaboration to improve (the implementation of) risk and control matrices to support financial accounting and reporting processes within Arcadis.
5. Ongoing centralized and regional assurance activities to underpin the accuracy, timeliness and reliability of our internal and external financial and business performance reporting process.
6. The finance community references centralized accounting policies which are compliant with the most recent IFRS standards and include Arcadis' interpretations and practices of the Standards. Accounting and reporting in accordance with the accounting policies as published on the Arcadis Intranet is mandatory and is referred to as the Arcadis Way of accounting and reporting.

Risk Appetite: Risk Trend:

Further activities planned for 2020

Continued focus on adherence to accounting standards (e.g. revenue recognition as applied to digital business models) and related internal policies, as well as improving forecasting capabilities and collaboration with other functions to work with a single data source. Implementation of XBRL tooling to ensure compliance of the annual financial statements 2020 with the European Single Electronic Format (ESEF).

Cross functional collaboration on embedding financial accounting and reporting controls in the Regions which have gone live on the Oracle platform, including further development of (automated) controls and standardized reports.

Increasing Stable Decreasing Averse Low Medium High

Information Security risk

Information Security risks continue to present a threat to day-to-day business activities. The threats are rapidly changing and constantly evolving. Market requirements have changed with increased client awareness of certifications. Regulators and clients are taking a greater interest in how organizations protect their data and will choose to do business with organizations which have the best security ratings.

Specific risk-mitigating actions in 2019

1. An updated Information Security strategy has been developed and approved by the EB/ELT.
2. Arcadis developed core security processes by investing in threat preventions and developing an incident handling process and vulnerability management process which were all deployed.
3. The size of the information security team was significantly increased, and the security operations team were upskilled. This allowed Arcadis to mature its ability to detect and respond to information security threats.
4. Improved security awareness training as part of the Global Induction program. Additionally, updated security awareness training has been launched globally with completion rates and pass rates monitored. Additional support is provided to regions where pass rates are lower than expected.

Risk Appetite: Risk Trend:

Further activities planned for 2020

Arcadis plans to design and deploy additional components in its security architecture in response to an evolving threat landscape. With continued commitment and alignment to ISO27001, new security controls will be implemented, and a threat monitoring & detection technology will be deployed. Security awareness training will be incorporated into the global induction program in 2019 meaning all new starters will have security awareness training upon joining Arcadis.

Develop a consistent global data approach in terms of information classification and data quality to complement our Information Security policies.

Information Technology risk

The risk of critical IT systems being unavailable or having restricted availability to the business leading to loss of operational functionality and business disruption is a constant threat to Arcadis. Arcadis therefore needs to ensure that its IT systems are developed and improved in line with its digital offering to support its future competitiveness in this growing market and enable it to provide its services in an effective and efficient manner.

Specific risk-mitigating actions in 2019

1. The process of IT control testing was reviewed in line with the ARC Framework to and performed by a specialist IT risk team.
2. Continued improvements were made to the connectivity of services.
3. IT infrastructure was centralized, including migration of applications and platforms into the global data centers, in order to reduce exposure in terms of availability and to optimize resources.
4. Arcadis continues to monitor software installed within our IT environment to ensure that we are in line with all licensing requirements.

Risk Appetite: Risk Trend:

Further activities planned for 2020

Following the updated Information Security Strategy, the scope of the Global Information Security Management system will be determined in alignment with ISO27001 to support Arcadis' digital journey, developments in legislation, security threats and include other specific regional requirements.

Increasing Stable Decreasing Averse Low Medium High

Compliance risk

Regulatory & Policy Compliance risk

Arcadis does business in accordance with its General Business Principles, laws and regulations including labor laws, privacy regulations, accounting standards, tax laws, health and safety regulations, as well as governance and periodic filing requirements, applicable in the jurisdictions in which it operates. Management is responsible for raising awareness of, and applying, applicable laws and regulations. Global, Regional and Local policies are developed and implemented to support compliance.

Specific risk-mitigating actions in 2019

1. All Arcadis employees undertake training on the Arcadis General Business Principles (AGBP). This training provides legal background as well as guidance on recognizing compliance issues and on raising actual or suspected misconduct or irregularities under the applicable reporting procedures.
2. Arcadis' Privacy Policies (Binding Corporate Rules) relating to both Employee data and the data of Arcadis' Business Partners, Clients and Suppliers were introduced through a global awareness Program, and a GDPR online training was rolled out to focused regions and functions. A privacy management system, which drives a consistent approach across regions, was refreshed in 2019.
3. A privacy impact assessment tool was introduced to address Arcadis' record keeping obligations as a data processor.
4. The global integrity and anti-corruption program in 2019 continued to focus on encouraging management to own integrity. Various integrity sessions with senior leadership teams were carried out, led as a joint effort by people from local and global Legal or Compliance function, and CEOs.
5. Our tooling regarding project approvals for projects that may be affected by sanctions and/or performed in countries that are gray or blacklisted was digitalized to better support related compliance developments.
6. The Global Crisis Response Plan was updated across all regions.
7. Arcadis has developed a framework of non-financial metrics in order to disclose certain information on the way it operates and manage social and environmental challenges.

Risk Appetite: Risk Trend:

Further activities planned for 2020

In 2020, the General Business Principles will be reviewed for societal, legislative and other developments, and updated if necessary. Further privacy trainings will be rolled out in 2020 reinforcing the requirements of the business in relation to data privacy. A privacy impact assessment tool will be introduced for the data controller role of Arcadis.

Increasing Stable Decreasing Averse Low Medium High

Management statements

As a result of the management testing carried out in 2019, the regions and operating companies issued signed Letters/Documents of Representation and In-Control statements to the Executive Board.
The Executive Board/ELT has reviewed the Letters of Representation and In-Control statements, along with reports from Internal Audit and the Board Report from the external auditor. It has assessed the effectiveness of the design and operation of the ARC Framework in 2019 and has discussed this with the Audit and Risk Committee and the Supervisory Board.

During 2019, no major failings (i.e. no failings which resulted in material losses or impact) in the design or implementation of the controls under the ARC Framework were observed. Where a control did not operate as expected, areas for improvement were identified, remedial action plans formalized and the plans will continue to be monitored through 2020.

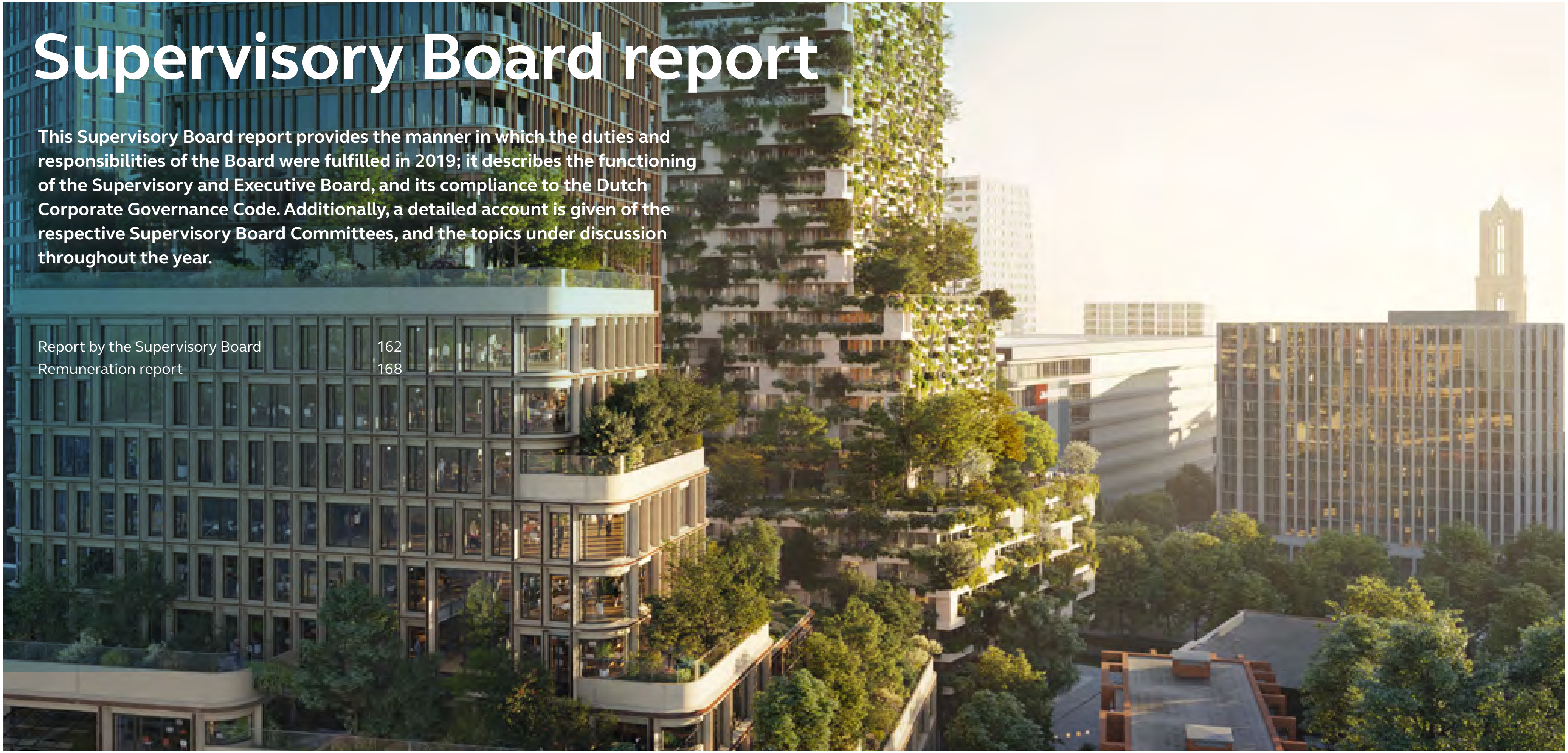
Based on the information referred to above and its assessment, the Executive Board believes that:

1. The report provides sufficient insights into any failings in the effectiveness of the internal managements and control systems;
2. The aforementioned systems and controls provide a reasonable assurance that the financial reporting does not contain any material inaccuracies;
3. Based on the current state of affairs, it is justified that the financial reporting is prepared on a going concern basis; and
4. The report states those material risks and uncertainties that are relevant to the expectation of the company's continuity for the period of twelve months after the preparation of the report.

In accordance with Article 5:25c of the Financial Markets Supervision Act (Wet op het Financieel Toezicht), the Executive Board confirms, to the best of its knowledge, that:

- the Consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit and loss of Arcadis and its consolidated companies;
- the Annual Report gives a true and fair view of the position as at 31 December 2018 and the developments during the financial year of Arcadis and its group companies included in the Consolidated financial statements; and
- the Annual Report describes the main risks Arcadis is facing.

The above statements are given on the basis that the ARC Framework is primarily designed to bring Arcadis' risk exposure within its appetite and cannot therefore provide full and complete assurance that all human error, unforeseen circumstances, material misstatements, fraud or non-compliance with laws and regulations will be prevented.



Supervisory Board report

This Supervisory Board report provides the manner in which the duties and responsibilities of the Board were fulfilled in 2019; it describes the functioning of the Supervisory and Executive Board, and its compliance to the Dutch Corporate Governance Code. Additionally, a detailed account is given of the respective Supervisory Board Committees, and the topics under discussion throughout the year.

Report by the Supervisory Board

Arcadis NV has a two-tier Board structure, consisting of the Executive Board and the Supervisory Board, both with responsibilities for the Company and its stakeholders, yet each with its own specific task description. The task of the Executive Board is to manage the Company, and to realize its objectives and strategic goals. The task of the Supervisory Board is to supervise and advise the Executive Board.

This Report by the Supervisory Board sets out the manner in which the Supervisory Board fulfilled its duties and responsibilities in 2019. For details on the organizational structure see the paragraphs in the section on Corporate Governance in this Annual Integrated Report. For the activities of the Executive Board and Executive Leadership Team in 2019 see, amongst others, the CEO message, and also the performance by Segment pages in this Annual Integrated Report.

Focus items 2019 and Our Role as Supervisory Board

The Supervisory Board notes that good progress was made in the Top Priorities mentioned in the message from the Chairman. The focus and discipline resulting from the MEPC program and ensuring that the right countries/clients project opportunities are being pursued has contributed to an improved financial performance across the board. We believe that further improvement will be created with this sustained focus and a further utilization of the GEC's. We are furthermore pleased with the improved engagement of the employees of Arcadis and appreciate in particular their personal commitment and involvement in expanding our Digital capabilities, factors which have contributed to a reduced level of voluntary turn over and will help the Company in becoming an employer of choice. The further introduction of the Arcadis Way has progressed throughout the year with the implementation of the Oracle cloud solution in North America, which included some challenges resulting in delays in invoicing to clients.

Investor confidence is largely built on delivering predictable Company performance and acting with a high degree of Integrity. On the performance side, the Company had to stabilize and improve the delivery in Asia, after the portfolio analysis undertaken by new management in Asia in late 2018. This analysis amongst others included the divestment of some of our smaller local and non-profitable activities such as in Taiwan, Korea and in Indonesia. The Supervisory Board is pleased with the resulting performance improvement in Asia and believes that the region is now set up for measured growth.

In CallisonRTKL new leadership was put in place and the organization and structure were simplified. We expect to see results of the improvements in 2020. Australia continued to perform very well in 2019, and performance in North America was also very strong. The macro indicators for Brazil continued to improve in Q4 2019 but is not back yet. Nevertheless, Latin America continues to make improvements. Europe, Middle East and the United Kingdom also did well albeit in the Middle East cash collection remains an attention point. During the year Brexit got focused attention; the effect of Brexit so far remained limited.

With regard to the ALEN associate, the intent was to sell the clean energy assets as they are non-core business. However, despite interest in the market, it became clear at the end of the year that a successful divestment would not occur in the foreseeable future. As a result, the Company decided to stop any further investments and to take a provision to cover the full exposure.

Risk is inherent to doing business and to the realization of the Company's strategy. Risk identification, in combination with pro-active and rigorous risk management, however also offers opportunities to further improve performance. With regards to risk management and particularly related to follow up on identified issues, the Supervisory Board is of the opinion that the organization needs to further strengthen its ability for timely close issues out. In 2020 the Supervisory Board will therefore put additional focus on risk related supervision.

Various efforts were undertaken in 2019 in the areas of Integrity and Sustainability. This includes the 2019 global Integrity & Anti-Corruption program and the implementation of the Global Privacy Program. The Company's commitment to Sustainability was further strengthened in 2019 through the explicit inclusion of the 'Sustainalytics score' in the long-term incentive of Executive Leadership Team. The Supervisory Board is keen to see further steps on sustainability in 2020.

Reducing indirect costs and organizational simplification stayed on the agenda. Various steps were taken to progress the topic such as the appointment of a Global Procurement Officer and a Director of Global Workplace to ensure better leverage of our Global spent as well as a more efficient management of our global real estate portfolio.

The Supervisory Board fully supports all efforts in the mentioned area and stresses the importance of progress. Digitalization will be crucial to long-term value creation as well as for the sustainability and longevity of the Company. In 2019, a sub-committee of the Supervisory Board continued to regularly interact with the Leadership of the Digital team, which we will continue in 2020. The Supervisory Board has also consistently supported and pushed the focus on clients, MEPC, the utilization of the shared service centers, the people and value related efforts, as well as profitability and positive cash generation.

We are pleased with the overall performance and particularly with the improvements in Asia and the Middle East, following the actions we took. As to the ALEN Clean Energy Assets, we have received very frequent updates and had many in-depth discussions with the Executive Board during the year. We believe that the ALEN associate has been given ample time to create a return on the investments in clean energy assets. We fully supported the December decision of the Executive Board to stop investing in ALEN and take a provision for the full exposure. Arcadis can now focus on its core business. Debt ratio levels stayed within strategic brackets. It is good to see the Executive Leadership team function as a team and jointly driving improvements. Continued attention for cost management will remain important in 2020 to achieve our strategic targets by the end of 2020. We believe there is further room to simplify the organization and will continue to keep this on our attention list. On Health & Safety we continued to always start our meetings with an update on Health & Safety status and/or a Health & Safety moment. By sharing experiences and suggestions the Supervisory Board continues to contribute to further awareness and improvement. The Supervisory Board is pleased with the H&S performance for 2019. The Supervisory Board also feels the organization is coping well with H&S crisis situations (such as the Australian bush fires and the corona virus).

Finally, we note that several of the priorities were (also) extensively addressed in the respective Committees of the Supervisory Board. Supervisory Board members that are not a member of a relevant Committee frequently sit in on those other Committee meetings. The respective chairpersons of the Committees always report on their discussions during the full Board meetings.

Supervisory Board meetings. Attendance

In 2019, we had five regular scheduled meetings. All our meetings were attended by the members of the Executive Board and various members of the Executive Leadership Team. We also had five 'Supervisory Board-only' meetings, as per our regular schedule.

In our scheduled meetings we addressed the focus items listed earlier in this Report, as well as topics that we address every year, including the financials, performance, governance (including composition of the Supervisory Board and Executive Board and related (re-)nominations, the remuneration of the Supervisory Board, Executive Board and Executive Leadership Team, and more in general the preparation of the annual shareholders meeting), Risk Management, Internal Audit, Legal, Claims and Claim related trends, Integrity, Compliance and the Integrity & Anti-Corruption program, People, IT, developments in the organization, important project wins and M&A/divestment/portfolio (opportunities). During the year we monitor progress against the priorities mentioned earlier in this Report.

Supervisory Board members were rarely absent from either Supervisory Board meetings or Supervisory Board Committee meetings. The attendance percentage for the full Supervisory Board meetings was 97.1% (2018: 98.6%), for Supervisory Board-only meetings 97.1% (2018: 100%), for Audit and Risk Committee meetings 93.7% (2018: 93.8%), for Remuneration Committee meetings 91.6%% (2018: 100%) and for Selection Committee meetings 100% (2018: 100%). As for absence from meetings: two Supervisory Board members had to each miss one day of meetings due to personal (family related) circumstances. They provided input for the meetings prior to the meetings.

Next to interaction with the Executive Board, the Executive Leadership Team as well as other regional leadership in the Supervisory Board meetings in the form of presentations in areas of responsibility and discussion, interaction also takes place during social events in offices, dinners and one-on-one discussions with various senior leaders. Throughout the year, the Chairman maintained frequent contact with the CEO, CFO as well as with the General Counsel & Company Secretary. Similarly the Chairpersons of the Supervisory Board Committees were in frequent contact with, as applicable, the CEO, CFO, (interim) Chief People Officer, Chief Risk Officer, Head of Internal Audit and General Counsel & Company Secretary or her deputy.

Finally, we like to mention that all Supervisory Board members, as well as two Executive Board members and one Executive Leadership team member, are board members of the Priority Foundation. This foundation also has ten Arcadis employees in its Board from across the organization. As a group, these ten employees are joined up in another foundation's board, called the Bellevue Foundation. The board of the Priority Foundation meets at least twice a year to discuss Arcadis affairs. Reference is made to note 25 of the Consolidated financial statements for further information on the Priority Foundation and the Bellevue Foundation.

Functioning of the Supervisory Board, the Executive Board and the Executive Leadership Team

Annually we perform our assessment of the functioning of the Supervisory Board, the Supervisory Board Committees and the individual Supervisory Board members. In December 2019, we performed the assessments with two structured questionnaires prepared in co-ordination with the Company. The assessment of the functioning of the Chairman of the Supervisory Board was led by the Vice-Chairman of the Supervisory Board without the presence of the Chairman. As a result of the evaluation we re-emphasized the need for further improvement in delivery of Supervisory Board materials and more focus on risk management.

Same as in the last years, in the Board meetings each of the Supervisory Board members takes responsibility that certain specific attention areas/topics are addressed. This helps ensure that we give the topics the required attention and optimize our respective specific expertise. Since 2016 we also structurally evaluate our Supervisory Board meetings amongst ourselves at the end of every scheduled Supervisory Board meeting.

In our meeting in February 2020 we concluded that the induction program of the Supervisory Board is set up well.

In February 2019 we set personal targets for the CEO. During the year we monitored the performance of the Executive Board and the individual Executive Board members in our Supervisory Board-only meeting(s). In December 2019 and February 2020 we did assessments of the Executive Board performance, the two Executive Board members and the performance of the Executive Leadership Team. Following the discussions during the year, and following the assessments, we have or will be providing feedback. Based on the assessment, the Supervisory Board has concluded that the relationship between the Executive Leadership Team and Supervisory Board is good and constructive, whilst sufficiently critical. This is considered essential to functioning properly.

Composition Executive, Supervisory Board and Executive Leadership Team

As at 31 December 2019, the Supervisory Board consisted of seven members, the Executive Board of two members and the Executive Leadership Team of nine members, including the two Executive Board members. In October 2019, Mrs. van Blokland was appointed to the Executive Leadership Team in the role of Chief People Officer. She replaced Mrs. Belilos, who left the organization earlier in 2019.

For information about diversity targets in our Supervisory Board we refer to the chapter on Corporate Governance in this Annual Integrated Report. For the current composition of the Executive Board, the Executive Leadership Team and information about its members, please refer to pages 136 and 137 of this Annual Integrated Report. For the current composition of the Supervisory Board, its Committees, and information about its members, please refer to pages 138 and 139 of this Annual Integrated Report.

Corporate Governance

In the chapter on Corporate Governance in this Annual Integrated Report, the governance structure of the Company is described, and we explain the one deviation from the principles and best practice provisions of the Corporate Governance Code. The Supervisory Board meets the requirements of the Code regarding the independence of its Chairman, of the other Supervisory Board members, and of the Supervisory Board as a whole. The Supervisory Board also complies with the best practice provision that its members do not hold more than five supervisory board positions at certain 'large' (listed) companies or entities. The Executive Board members do not hold more than two supervisory board positions with such companies. During 2019, no material transactions involving conflict of interest occurred for Executive or Supervisory Board members.

Supervisory Board Committee reports

Audit and Risk Committee report

M. Schönfeld (Chairman), N. Hoek, M. Lap, M. Putnam

In 2019, the Audit and Risk Committee (AARC) had four regular scheduled meetings. All regular scheduled meetings of the Committee were attended by the CEO, the CFO, the Group Controller as well as the internal and external auditors. There were also two 'AARC-only' meetings, as per the regular schedule.

The Chairman of the Committee had regular contact with the CEO and the CFO, but also with the external auditor and the Head of Internal Audit, to discuss focus items like financial performance, business risks and other matters. It is customary that the Committee shares its main deliberations and findings in the Supervisory Board meeting following the AARC meeting.

Focus and Performance

Financial performance of the Company remained the common thread of the Committee's discussions and activities throughout 2019. Progress on each of the ten group-wide priorities was discussed, with special attention for, inter alia, the Make Every Project Count initiative. Likewise, the use of our Global Excellence Centers, the growth of order pipeline and backlog and the reduction of working capital as well as cost and cash management were recurring agenda items. Cash collection continued to be high on the agenda, especially the delays in invoicing in North America as a result of the implementation of Oracle in the second half of 2019 (limited progress).

As in 2018, the single-greatest specific attention item of the AARC in 2019 was the development of the clean energy assets in Brazil (ALEN) (including related risk and financial reporting) as well as the divestment process of these assets that started in Q2 2019. Progress was discussed during each meeting. In addition, bi-weekly written updates continued to be provided to the full Supervisory Board.

In each meeting, in the presence of the Head of Internal Audit the past quarter's main internal audit findings were discussed and progress made against the annual internal audit plan was discussed. The Head of Internal Audit also presented the Committee with the positive outcome of a self-assessment on compliance with the requirements that the Dutch Corporate Governance Code imposes on the Internal Audit function.

In its October session the Committee evaluated the performance, independence and financial literacy of the Committee and its members, with a positive conclusion. Identified areas of improvement for AARC meetings include attributing clear accountability within the organization for solving issues brought up in AARC meetings, with corresponding timeline, priority, and reporting back to the AARC on actions taken.

Also, in each meeting, in the presence of the Chief Risk Officer, the meeting dedicated time to discuss various Risk Management topics. The meeting further regularly discussed, and reported to the Supervisory Board on, the Arcadis Risk Assurance Program. The main findings of this annual assessment cycle are discussed in the AARC and SB meetings in February of each year. The meeting agreed with the assessment's main findings and observed weaknesses (including ALEN, the implementation of Oracle and the need to step up our information security efforts and further strengthen our defenses in this field). As an overall conclusion for the year, the meeting confirmed in its February 2020 meeting the importance of not only having adequate risk and control systems in place, but also of embedding Risk Management into the way Arcadis works. In this regard, the meeting witnessed improvement in 2019. The ELT and senior Regional management have taken increased ownership of the key risks, their management and, where necessary, mitigation. More work remains to be done on certain identified risks and to further improve our culture into both a culture of discipline and accountability as well as a culture where people feel free to bring up and discuss issues.

In the context of the annual results 2018, the meeting discussed and reconfirmed the Company's dividend policy and recommended the dividend proposal of €0.47 per ordinary share to the Supervisory Board.
As is customary, during the April meeting the AARC also evaluated the performance of PricewaterhouseCoopers (PwC), the Company's external auditor, and discussed certain improvement areas (for both PwC and the Company). PwC also presented its audit plan for 2019 during this meeting, which was discussed and approved. During the July Committee meeting, PwC's half-year review report was discussed. PwC's key financial reporting risks for 2019 and its audit findings, both at mid-year and at year-end, were aligned to the focus items identified by the Committee and by the Internal Audit department. Throughout the year, the Committee discussed and assessed with PwC the progress made regarding its key audit findings.

Like every year, the Committee frequently reviewed and discussed the Company's quarterly reports on key legal claims and pending litigation, as well as claims statistics. The Committee also discussed assumptions used for impairment testing and the Company's capital allocation policy.

The Committee was kept closely informed on the implementation of the Company's Privacy program. The Committee was also regularly updated on (potential) integrity issues and related statistics, as well as on the status of the Integrity and Compliance program 2019.

Also on the agenda were presentations by the CFO EME, by the new Group Treasurer, and by PwC on non-financial information and sustainability. On the latter, the meeting discussed how the company can make sustainability a differentiator against peers and identified a number of improvement areas, including being more proactive and vocal about our ambition level and defining more concrete targets.

Finally, as is customary with acquisitions by the company, a post-acquisition review of the Hyder acquisition took place in 2019, five years after Hyder was acquired. With the people most closely involved in the acquisition process, the meeting discussed the strategic and financial value of the acquisition and the results. The meeting concluded that most strategic objectives of the acquisition were met, including strengthening the positions in UK Infrastructure and Australia and scaling up the capacity, capability and growth rate of the Global Excellence Centers. The meeting also discussed the valuable lessons learned from this transaction, including lessons regarding the post-merger integration process (e.g. handover of due diligence findings to Post Merger Integration team should be clear and explicit; focus should be on in-region collaboration instead of cross-region collaboration) and the purchase price adjustment process (importance of close collaboration between legal and finance departments; importance of clearly defining scope of exercise; and importance of making appropriate resources available).

Remuneration Committee report

R. Markland (Chair), N. Hoek, D. Goodwin, W.G. Ang

In 2019, the Arcadis Remuneration Committee (RemCo) met three times. The Chief Executive Officer, the Chief People Officer and the Chief Financial Officer (CFO) were invited to attend (parts of) the meetings.

The RemCo prepared in the first quarter the performance evaluation of the Executive Board members for discussion in the Supervisory Board. Other meeting topics included the granting of bonuses and conditional performances shares to the Executive Board, senior management and other key staff, and the 2019 bonus program for the Executive Board and Executive Leadership Team.

The RemCo also confirmed the ranking of Arcadis among the TSR peer group which determines the vesting percentage. Based on this ranking, the conditional performance shares awarded in May 2016 vested against 0% in 2019. In Q3 and Q4, the RemCo reviewed the Executive Board remuneration policy and established a Supervisory Remuneration policy to comply with the new Shareholder Rights Directive. The updated Executive Board remuneration policy and Supervisory Board remuneration policy will be put forward for resolution in the Annual General Meeting in April 2020. Furthermore a review of the Executive Leadership Team remuneration was undertaken.

Selection Committee report

N. Hoek (Chair), R. Markland, D. Goodwin, W.G. Ang

In 2019, the Arcadis Selection Committee (ASC) met two times. The Chief Executive Officer and the Chief People Officer attended (parts of) of these meetings. In the first quarter of 2019, the replacement of the Chief People Officer was discussed and in the selection process both external and internal candidates were considered. During both ASC meetings the committee discussed the succession Plan of the Executive Board and the Executive Leadership Team.

Furthermore, the replacement of Mr. J.C.M. Schönfeld as a member of the Supervisory Board was discussed. The third and final term of Mr. Schönfeld will expire after the AGM in 2020. After twelve years and in line with the Corporate Governance Code, he will not be eligible for re-appointment. The search for candidates to replace Mr. Schönfeld has been initiated, taking into account the profile and diversity policy for the Supervisory Board. The ASC Committee discussed and agreed on the appointment of Mr. M. Lap for appointment as Chair of the Audit and Risk Committee succeeding Mr. Schönfeld in this role.

The committee discussed and agreed on the nomination of Mrs. D. Goodwin for re-appointment as member of the Supervisory Board which re-appointment will be on the agenda of the AGM in 2020.

2019 financial statements, and dividend

The Executive Board has prepared this Annual Integrated Report, including the 2019 financial statements. PricewaterhouseCoopers, the external auditor, has issued its auditor report which can be found starting on page 262 of this Annual Integrated Report.

The members of the Executive Board have issued the statements required under section 5:25c.2.c of the Financial Markets Supervision Act (Wet op het financieel toezicht). All members of the Supervisory Board and Executive Board signed the 2018 Financial Statements in accordance with section 2:101.2 of the Dutch Civil Code (Burgerlijk Wetboek).

We recommend that the General Meeting (i) adopts the 2019 Financial Statements, (ii) approve the proposal to distribute a dividend of €0.56 per ordinary share, to be provided in cash or in shares at the option of the shareholder(s), and (iii) discharge the members of the Executive Board for their management of the Company and its affairs during 2019, and the members of the Supervisory Board for their supervision over said management.

Concluding remarks

2019 was a challenging but satisfying year. We are pleased to see that the focus on the core topics of the strategy for 2018-2020 as presented on 21 November 2017 is paying off. We thank the Executive Board, Executive Leadership Team, managers and all of the Arcadis staff worldwide for their strong contributions to our performance throughout the year. We look forward to another good year in 2020.

Amsterdam, the Netherlands, 12 February 2020

On behalf of the Supervisory Board
Niek W. Hoek, Chairman

Relevant documents on our corporate website

1. Profile Supervisory Board
2. Diversity Policy for the Supervisory Board
3. Regulation Supervisory Board
4. Re-appointment schedule Supervisory Board
5. Arcadis Remuneration Committee Charter
6. Arcadis Audit & Risk Committee Charter
7. Arcadis Selection Committee Charter

www.arcadis.com

Remuneration report

The remuneration policy for the Executive Board and the remuneration for the Supervisory Board is proposed by the Supervisory Board to the Annual General Meeting, based on the advice of the Arcadis Remuneration Committee ('RemCo'), and aims to attract, motivate and retain qualified executives and non-executives for an international company of Arcadis's size and complexity to deliver our business strategy.

This report outlines the application of the remuneration policy for the Executive Board in 2019 as well as actual performance in 2019 against set performance criteria. In addition, the report outlines the Supervisory Board remuneration.

2019 financial performance

Arcadis is on track to achieve our strategic targets set for 2020. Our revenue and margin growth in the fourth quarter contributed to an improved performance for the full year. We are also pleased with the results in Asia, the Middle East and Latin America, following the actions we took. Our balance sheet is strong despite a lower free cash flow due to residual delays in cash collection in North America resulting from the Oracle Cloud implementation.

The foundation for better business results starts with our people. To create an environment for people to grow, perform and succeed it is vital to attract, develop and retain the workforce of the future for Arcadis. Our People First approach significantly lowered our voluntary employee turnover rate compared to last year.

We also continue to invest in our Innovation & Growth agenda, through the recent launch of our new digital business, "Arcadis Gen", focused on developing digital products and services and delivering them through new business models. Arcadis Gen already demonstrated the global scalability of our enterprise asset management platform by winning a major project for Amtrak, the passenger railway operator in North America, which follows the win of a project for Transport for London late last year. In addition, we continue to enhance the digitalization of our core business. In the Netherlands we strengthened our business with the acquisition of "Over Morgen", a consultancy focused on urban planning and energy transition.

When we announced our strategy 'Creating a Sustainable Future' in 2017, we defined a clear path on long-term value creation, we are pleased to see that our efforts deliver results.

Contribution of remuneration to the performance of the company

The total remuneration in 2019 for both Executive Board and Supervisory Board is in line with the adopted remuneration policy.

The total remuneration for the Executive Board consists of fixed remuneration and variable remuneration. The fixed remuneration equals the amounts in the Remuneration Policy. Both the short-term and long-term variable remuneration are in line with the approved remuneration policy.

The short-term incentive criteria are directly linked to the strategic pillars, therefore supporting the long-term performance of the company. The financial criteria support sustainable revenue growth, while making sure enough free cashflow is generated. The people criterion focuses on reduction of our voluntary turnover, which is a leading measure for stability of the company. Finally, role modelling leadership behavior is measured in order to embrace the right culture in the company.

For the long-term incentive, the criteria, being Total Shareholder Return, Earnings per Share and Sustainability, contribute to the long-term performance of the company.

The total remuneration for the Supervisory Board reflects the amounts as approved by the General Meeting of Shareholders in 2017.

Executive Board remuneration policy

In April 2019, the General Meeting of Shareholders ('General Meeting') adopted the revisions to the remuneration policy for the Executive Board as proposed by the Supervisory Board, with effective date1 January 2019. The revisions made served to ensure continued alignment of the remuneration policy for the Executive Board with relevant market practice.

Remuneration in line with median level of reference groups

The remuneration policy for Executive Board members aims to support the business strategy, enhance the link between pay and performance and align the interests of our Executive Board members with shareholders' interests by stimulating share ownership while adopting the highest standards of good corporate governance. Remuneration for Executive Board members consists of fixed remuneration, short-term variable remuneration, long-term variable remuneration and other benefits, such as a pension scheme. Variable remuneration is an important part of the total package and is based on annual performance criteria that support long-term value creation.

Arcadis has developed from a multi-local to a leading international company with clear focus on creating a sustainable future. In order to align with Arcadis' size (in terms of revenues, average market capitalization, total assets and number of FTE), geographic and industry scope, and labor market competition, the remuneration policy is based on a comparison against two reference groups of sixteen companies each. A clear distinction is made between Dutch headquarter companies with significant international activities on the one hand and global industry peer companies on the other hand.

Dutch headquarter companies	Global industry peer companies
Aalberts Industries (NL)	AECOM (USA)
AkzoNobel (NL)	Amec Foster Wheeler (UK)
BAM (NL)	Cardo (AUS)
Boskalis (NL)	CBRE (USA)
Brunel (NL)	Hill International (USA)
DSM (NL)	Jacobs Engineering (USA)
Fugro (NL)	Jones Lang LaSalle (USA)
KPN (NL)	Pöyry (FIN)
PostNL (NL)	RPS Group (UK)
SBM Offshore (NL)	SNC Lavalin (CAN)
TKH Group (NL)	Stantec (CAN)
Tom Tom (NL)	Sweco (Sw)
Randstad (NL)	Tetra Tech (USA)
Refresco (NL)	Worley Parsons (AUS)
Vopak (NL)	WS Atkins (UK)
Wolters Kluwer (NL)	WSP Global (CAN)

The remuneration policy aims to align Arcadis with the market median of both reference groups on Total Direct Remuneration (the sum of fixed remuneration, short-term variable remuneration and long-term variable remuneration).

Internal pay ratio

When drafting the remuneration policy for the Executive Board, Arcadis considered the pay ratio within the organization. For 2019, Arcadis has a pay ratio 29, implying that the CEO pay is 29 times the average pay within the organization. The Arcadis internal pay ratio is calculated by dividing the total CEO remuneration by the average employee remuneration[1,2]. The internal pay ratio of 2019 has increased compared to the pay ratio of 2018, which was 25[3].

Fixed remuneration

In 2019, the fixed remuneration for the Executive Board has not changed compared to 2018. The following annual fixed remuneration levels applied to members of the Executive Board as set by the General Meeting in 25 April 2019:

Executive Board member	Annual fixed remuneration
CEO (P. Oosterveer)	€660,000
CFO (S. Kuijlaars)	€475,000

Short-term variable remuneration

The short-term variable remuneration ranges from 0% to 85% of the fixed remuneration, with 50% payout when targets are met. The short-term variable remuneration is paid fully in cash in line with the remuneration policy.

Performance criteria

To support the Company's strategy, the criteria for the short-term variable remuneration are based on the three pillars of the strategy and are partly financial and partly non-financial. The financially driven criteria determine 60% and reflect the financial priorities of the Company. They support the pillars of the strategy relating to Focus & Performance and Innovation & Growth. The remaining 40% support the People & Culture pillar.

1 Average employee remuneration is based on total personnel costs and the average number of full-time employees over two years excluding CEO as disclosed in note 8 of the Consolidated financial statements on page 196 and as stated in the five-year summary on page 272
2 Considering transparency and clarity, Arcadis applies a methodology to calculate the internal pay ratio that is IFRS-driven (i.e. linked to Arcadis' notes to the Consolidated Financial statements). From 2019, the pay ratio calculation is based on IFRS values, previous years have been restated to apply consistent calculation
3 Since the CEO only joined in 2017, the 2018 LTI expenses were limited to two years. Therefore, there is a significant increase from 2018 to 2019

The criteria for the members of the Executive Board are:

Strategic pillar	Criteria	Weight
Focus & Performance	Reported EBITA[4] %	20%
Focus & Performance	Free cash flow[5]	20%
Innovation & Growth	Organic net-revenue growth %[6]	20%
People & Culture	Voluntary turnover rate[7]	20%
People & Culture	Role modeling leadership behavior[8]	20%

4 Reported EBITA %:Earnings Before Interest, Taxes, and Amortization/Impairment of goodwill and/or identifiable assets
5 Free cash flow: cash flow from operating activities minus (dis)(in)vestments in (in)tangible assets
6 Organic revenue growth (revenue) %: year-on-year Net revenue change minus contributions from acquisitions in that period plus contributions of divestments in the previous period, minus exchange rate differences, and adjusted, if applicable, for non-recurring items
7 Voluntary Turnover Rate: voluntary termination of permanent employees divided by the average number of permanent employees during a 12-month period (January – December). A termination is voluntary when the decision for termination is made by the employee
8 The assessment of this target is done by comparing the actual performance with a matrix, indicating on different aspects, what it means to meet expectations, exceed expectations or falls short of meeting expectations. The assessment of this target considers how the Executive Board members have performed towards the identity, mission and values of the company

The short-term variable remuneration targets are set annually by the Supervisory Board based on the plan and budget for the respective year and considering the strategic aspirations. No payout will be made for below threshold performance. All short-term variable remuneration criteria allow for rewarding excellent performance. Short-term variable remuneration will not exceed 85% of the fixed remuneration.

In 2019, the performance of the company against the targets set was as follows. Targets and actuals reported in the table below are based on IAS17 figures, as the targets were not restated for the impact of the implementation of IFRS16.

	Realization	
Criteria	Payout as percentage of target	Payout as % of fixed remuneration
Free cash flow (in € millions)	60%	6%
Reported EBITA %	114%	11%
Organic net revenue growth %	139%	14%
Voluntary turnover rate %	103%	10%

The performance on the financial targets and the Role Modelling Leadership Behavior target (as assessed by the Supervisory Board) leads to the following payout:

	Fixed Remuneration	Realization (as percentage of fixed remuneration)						Payout
Name	(in €)	Free cash flow	Reported EBITA%	Organic net revenue growth %	Voluntary turnover rate %	Leadership behavior	Total	(in €)
CEO (P. Oosterveer)	660,000	6%	11%	14%	10%	15%	57%	373,098
CFO (S. Kuijlaars)	475,000	6%	11%	14%	10%	10%	52%	244,768

Long-term variable remuneration: performance shares

The long-term variable remuneration aims to align the interests of the members of the Executive Board with long-term shareholder interests. Therefore, under the remuneration policy, members of the Executive Board receive annually conditional performance shares. The conditional performance shares will vest and become unconditional three years after the grant and are restricted for another two years after vesting.

The value of the annual award is determined by a percentage of fixed remuneration. The actual number of conditional performance shares awarded is determined by the percentage of fixed remuneration divided by the Volume Weighted Average Price (VWAP)[9].

In 2019, the members of the Executive Board received the following Long-term variable remuneration:

	% of fixed remuneration	Grant value (in €)	VWAP (in €)	Number of shares	Fair value[10] (in €)	Total IFRS grant value (in €)
CEO (P. Oosterveer)	110%	726,000	14.22	51,055	17.63	900,100
CFO (S. Kuijlaars)	100%	475,000	14.22	33,404	17.63	588,913

10 Fair value is the IFRS value of one performance share at the date of grant

Performance criteria long-term variable remuneration

In order to support the three strategic pillars of the strategy, the performance criteria are:

- Total Shareholder Return
- Earnings per share
- Sustainability

Each parameter counts for 33.33%.

9 Volume Weighted Average Price (VWAP) of a 30-day period starting on the day of the publication of the annual results

Performance Criterion 1: Total Shareholder Return

The vesting percentage of the performance shares is conditional upon the achievement of performance measured as relative Total Shareholder Return (TSR), which is defined as share price movements including dividends, assuming dividends are reinvested over three years.

The TSR performance of Arcadis is measured against the performance of direct competitors. In 2019, Poyry (Finland), has been acquired by AF (Sweden) and continues as AF Poyry. Therefore, the Supervisory Board decided to replace Poyry by AF Poyry.

The current TSR group is as follows:

TSR peer group		
Arcadis (NL)	AF Pöyry (FIN)	Stantec (CAN)
AECOM (USA)	RPS Group (UK)	Wood Group (UK)
Cardno (AUS)	SNC-Lavalin (CAN)	Worley Parsons (AUS)
Hill International (USA)	Sweco (SE)	WSP Global (CAN)
Jacobs Engineering (USA)	Tetra Tech (USA)	

The position of Arcadis within the peer group, after three years, determines the final number of conditional performance shares that vest and becomes unconditional, in accordance with the following table:

Ranking	8 - 14	7	6	5	4	3	2	1
Vesting%	0%	50%	75%	100%	125%	150%	175%	200%

Performance Criterion 2: Earnings Per Share

Earnings Per Share (“EPS”) is calculated by applying the simple point-to-point[11] method at the end of the period. EPS is disclosed in our Consolidated Financial statement and is calculated by dividing the net income from operations by the weighted average number of shares outstanding during the period, excluding ordinary shares purchased by the Company and held as treasury shares (i.e. shares purchased to cover share/option plans). Earnings are adjusted for changes in accounting principles during the performance period. The Supervisory Board has the discretion to include other adjustments, for example, the account for events that were not planned when targets were set or were outside of management’s control.

11 % growth from t0 to tx, divided by # years

The EPS growth target, threshold and maximum are set annually for each award by the Supervisory Board. Given that these targets are commercially sensitive, EPS targets and the achieved performance are published in the Annual Report after the relevant performance period for the relevant award.

The following performance incentive zones will be used to define the vesting for this part of the conditional grant:

	< Threshold	Threshold	Target	Maximum
EPS	0	50%	100%	150%

Performance Criterion 3: Sustainability (Sustainalytics score (ESG))

The sustainability target is measured by reference to the score applied to the Company by Sustainalytics, a leading independent global ESG ratings firm which provides a robust analytical framework that addresses a broad range of Environmental, Social and Governmental (“ESG”) issues and trends that have a significant and material impact on industries and companies. Sustainalytics analyzes and rates the performance of companies across 42 different peer groups (comparable to sub-industries). The analysis is made by looking at and weighting the core and sector specific metrics to determine the overall ESG performance.

The following performance incentive zones and targets were set to define the vesting for this part of the conditional award made in 2019:

	< Threshold	Threshold	Target	Maximum
Sustainalytics score	0	50%	100%	150%
Target performance period 2019 - 2021[12]		74	76	78

12 The score will be based on the Sustainalytics score of 2021. In 2018, the Sustainalytics score was 70, in 2019, the score was 73. The scores are known in Q4 of the respective year

Conditional performance shares held by member of the Executive Board

In 2019, the aggregate numbers of conditional performance shares held by members of the Executive Board are as per below. The Executive board members did not hold any stock options in 2019.

Conditional performance shares	Granted in	Share price at grant date (in €)	Outstanding at 1 January 2019	Granted in 2019	Increase/(decrease) by performance measure	Forfeited in 2019	Outstanding at 31 December 2019	Vesting date
Peter Oosterveer								
	2017	15.91	87,790	–	–	–	87,790	ex-dividend date 2020
	2018	15.75	87,790	–	–	–	87,790	ex-dividend date 2021
	2019	16.90	–	51,055	–	–	51,055	ex-dividend date 2022
			175,580	**51,055**	**–**	**–**	**226,635**	
Sarah Kuijlaars								
	2018	15.75	6,000	–	–	–	6,000	ex-dividend date 2020
	2018	15.75	57,440	–	–	–	57,440	ex-dividend date 2021
	2019	16.90	–	33,404	–	–	33,404	ex-dividend date 2022
			63,440	**33,404**	**–**	**–**	**96,844**	
Total conditional performance shares current board members			**239,020**	**84,459**	**–**	**–**	**323,479**	

Vested shares

Conditional performance shares vested in 2019

Over the performance period 2016 - 2018 Arcadis ended on the 14th place of the peer group. Therefore, the conditional performance shares that were granted in 2016 vested at 0% in 2019.

Conditional performance shares to vest in 2020

Over the performance period 2017 - 2019 Arcadis ended on the 4th place of the peer group. Therefore, the conditional performance shares that were granted in 2017 will vest at 125%.

Number of shares	2017 grant	2020 vesting
CEO (P. Oosterveer)	87,790	109,738
CFO (S. Kuijlaars)		Not applicable

The actual vesting will take place on 8 May 2020, the ex-dividend date.

The members of the Executive Board have to retain the shares awarded under the long-term variable remuneration for a period of at least five years from the grant date, while allowing part of the shares to be sold to cover taxes due on the date of vesting, if any.

Conditional performance shares to vest in 2021

The conditional performance shares that were granted in 2018 will vest in 2021. The performance criterion over the performance period 2018 – 2020 is the Total Shareholder Return which will be determined in January 2021.

Total remuneration

The total remuneration of the Executive Board members over 2019 and 2018, split by component and presented in relative proportion between fixed and variable remuneration is as follows:

		1. Fixed remuneration		2. Variable Remuneration		3. Pension	4. Total Remuneration	5. Proportion of fixed and variable remuneration	
Name of Director position (in € thousands)	**Reporting year**	Base salary[14]	Fringe benefits	one-year variable	multi-year variable			Fixed	Variable
Peter Oosterveer CEO[13]	2018	827	61	210	0	17	1.115	81%	19%
	2019	826	58	373	0	18	1.268	71%	29%
Peter Oosterveer CEO, based on IFRS	2018	827	61	210	728	17	1.843	49%	51%
	2019	826	58	373	1049	18	2.317	38%	62%
Sarah Kuijlaars CFO[14]	2018	383	62	115	0	12	572	79%	21%
	2019	555	61	245	0	18	898	70%	30%
Sarah Kuijlaars CFO, based on IFRS	2018	383	62	115	175	12	747	61%	39%
	2019	555	61	245	393	18	1.291	48%	52%

13 Base salary includes pension compensation for pension accrual for fixed remuneration above 107,593

14 The multi-year variable remuneration is presented in two ways, based on amounts due and based on IFRS. Amounts due includes the actual realization of multi-year variable remuneration. Based on IFRS means that the multi-year variable remuneration is presented according to IFRS principles

An overview of the company's performance, the annual change in remuneration of the Executive Board and Supervisory Board members and the average remuneration on a full-time equivalent basis of employees of the company is as follows:

	2019		2018		2017		2016		2015		2014
	Actual	Change (%)	Actual	Change (%)	Actual	Change (%)	Actual	Change (%)	Actual	Change (%)	Actual
Operating EBITA margin (%)	8.1%	11%	7.3%	(4%)	7.6%	7%	7.1%	(26%)	9.6%	(5%)	10.1%
Free Cash Flow (in € millions)	87	(42%)	149	53%	98	22%	80	(34%)	121	17%	103
Organic net revenue growth %	3%	0%	3%	2%	1%	5%	(4%)	(5%)	0%	(1%)	1%
TSR (index 2014 = 100)	83	95%	43	(44%)	76	43%	53	(28%)	74	(26%)	100
Sustainalytics	73	4%	70	9%	64	3%	62	0%	62	(2%)	63
Average remuneration employees (€ thousands)	76	5%	73	0.4%	72	(2%)	74	(1%)	75	24%	60
CEO (€ thousands)[15,16]	1,268	14%	1,115	(15%)	1,311	17%	1,117	(46%)	2,082	3%	2,012
CFO (€ thousands)[17]	898	8%	828	31%	630	(18%)	767	(44%)	1,362	20%	1,131
Supervisory Board:											
Niek Hoek	104	(1%)	105	0%	105	19%	88	1%	87	43%	61
Deanna Goodwin	80	0%	80	(1%)	81	62%	50	–	–	–	–
Ruth Markland	77	(5%)	81	3%	79	8%	73	(3%)	75	6%	71
Ian Grice	–	–	29	(57%)	68	(20%)	85	13%	75	6%	71
Michael Putnam	80	31%	61	–	–	–	–	–	–	–	–
Maarten Schonfeld	72	(1%)	73	0%	73	6%	69	6%	65	(6%)	69
Michiel Lap	80	(5%)	84	9%	77	13%	68	51%	45	–	–
Wee Gee Ang	84	0%	84	47%	57	–	–	–	–	–	–
George Nethercutt	–	–	–	–	29	(60%)	72	(5%)	76	(1%)	77

15 In 2017, Peter Oosterveer joined as CEO. Over 2017, his total remuneration is annualized. Prior year total remuneration reflects the remuneration of the previous CEO
16 The CEO remuneration is based on IFRS principles
17 In 2018, Sarah Kuijlaars joined as CFO. Over 2018, her total remuneration is annualized. Prior year total remuneration reflects the remuneration of the previous CFO

Retirement and other benefits, contracts

Retirement benefits

In 2019, all Executive Board members participated in the Arcadis Netherlands pension plan. This is a collective defined contribution plan with the premium based on the ambition of a pension payment. The contribution from the participants is 6.58% of the pensionable salary (annual base salary minus offset) for the salary part below €107,593 (maximum pensionable salary under Dutch tax legislation). Executive Board members participating in the Arcadis Netherlands pension plan also receive an annual cash allowance in line with legislation in the Netherlands for the salary above €107,593.

Other benefits

Executive Board members receive a net fixed expense allowance, as well as other customary fringe benefits, including the use of a company car or a mobility allowance. They may also participate in the Employee Stock Purchase Plan (ESPP) to purchase up to a maximum of €400 per month of Arcadis shares from the Lovinklaan Foundation at a discount (see note 9 of the Consolidated financial statements). In line with best practice, the company provides benefits which the Supervisory Board considers appropriate for a global company which needs to attract and retain Executive Board members from different parts of the world.

Management agreements and severance pay

In line with current Dutch legislation, all Executive Board members work for Arcadis N.V. under a management agreement: Mr. P. Oosterveer (appointed in 2017) and Mrs. S. Kuijlaars (appointed in 2018) have a four-year term and may be entitle to a severance pay with a maximum of one year's base salary. Management agreements with Executive Board members do not contain provisions on severance payments in case of termination resulting from a change in control.

Other elements of the remuneration policy

The Dutch Corporate Governance Code contains additional best practices regarding executive remuneration. Based on the advice of the RemCo, the Supervisory Board is satisfied that it has complied with these additional best practices in 2019. Before setting proposed targets for Supervisory Board approval, the RemCo carried out scenario analyses of the possible financial outcomes of meeting target levels, as well as maximum performance levels, and how they may affect the level and structure of the total remuneration of the members of the Executive Board.

Remuneration Supervisory Board

The remuneration for Supervisory Board members was last adjusted in 2017, based on a benchmark analysis by an external advisor of remuneration at companies that are in the same labor market reference groups as mentioned before for the Executive Board remuneration. The remuneration of the Supervisory Board members for 2019 is as follows:

In €	Chairman	Member
Annual fixed remuneration SB	80,000	55,000
Annual fixed expense allowance SB	3,000	2,000
Membership AARC	12,000	8,000
Membership ASC and RemCo	10,000	7,000

In 2017, the General Meeting approved an attendance fee for all Supervisory Board members of €2,500 for every visit for meetings that takes place outside of the country of domicile of a Supervisory Board member and that does not involve intercontinental travel, or €4,000 for every visit for meetings that involves intercontinental travel. No attendance fee is paid if the meeting takes place in the country of domicile of a Supervisory Board member.

Remuneration of Supervisory Board members is not dependent on company results. Supervisory Board members are not eligible to receive shares or options as part of their remuneration package. Possible share ownership of Arcadis shares by a Supervisory Board member is meant as a long-term investment.

Total remuneration

The total remuneration of the Supervisory Board members over 2019:

In €	Niek W. Hoek	Deanna Goodwin	Ruth Markland	Wee Gee Ang	Michiel Lap	Maarten Schönfeld	Michael Putnam
SB membership	80,000	55,000	55,000	55,000	55,000	55,000	55,000
Committee membership	18,000	7,000	10,000	7,000	8,000	12,000	8,000
Fixed Expense allowance	3,000	2,000	2,000	2,000	2,000	2,000	2,000
Attendance allowance	2,500	16,000	10,000	20,000	15,000	2,500	15,000
Total	**103,500**	**80,000**	**77,000**	**84,000**	**80,000**	**71,500**	**80,000**

Other information

The Company has not granted any loans, advances or guarantees to Executive or Supervisory Board members. The articles of association of Arcadis NV provide current and former Executive Board members and Supervisory Board members with an indemnification for all costs and expenses arising from and against any claim, action or lawsuit related to actions and/or omissions in their function as Executive Board or Supervisory Board members.

On behalf of the Arcadis Remuneration Committee
Ruth Markland, Chair

Financial statements

Consolidated Income statement

for the year ended 31 December

In € thousands	Note	2019	2018
Gross revenues	6	**3,473,370**	**3,255,574**
Materials, services of third parties and subcontractors		(896,768)	(815,651)
Net revenues[1]	6	*2,576,602*	*2,439,923*
Personnel costs	8,9	(1,995,787)	(1,886,914)
Other operational costs	8	(281,168)	(354,686)
Depreciation and amortization	13, 14	(116,641)	(42,600)
Amortization other intangible assets	13	(16,609)	(22,721)
Impairment charges	13	–	(40,386)
Other income	7	9,053	5,777
Total Operational costs		**(2,401,152)**	**(2,341,530)**
Operating income		**175,450**	**98,393**
Finance income	10	5,306	14,059
Finance expenses	10	(47,740)	(42,090)
Fair value change of derivatives	10	2,914	920
Net finance expense	10	**(39,520)**	**(27,111)**
Expected Credit Loss on shareholder loans and corporate guarantees	16	(82,431)	(53,925)
Result from investments accounted for using the equity method	16	1,251	(12,692)
Profit before income tax		**54,750**	**4,665**
Income taxes	11	(39,898)	(30,413)
Result for the period		**14,852**	**(25,748)**

Result attributable to:			
Equity holders of the Company (net income)		12,302	(26,701)
Non-controlling interests		2,550	953
Result for the period		**14,852**	**(25,748)**

Earnings per share (in €)			
Basic earnings per share	12	0.14	(0.31)
Diluted earnings per share	12	0.14	(0.31)

[1] Non-GAAP performance measure. Reference is made to the Glossary Financial & Non-Financial indicators on page 277 for the definition as used by Arcadis

The notes on pages 183 to 248 are an integral part of these Consolidated financial statements

Consolidated Statement of comprehensive income

for the year ended 31 December

In € thousands	2019	2018
Other comprehensive income, net of income tax		
Result for the period	**14,852**	**(25,748)**
Items that may be subsequently reclassified to profit or loss:		
Exchange rate differences for foreign operations	34,143	7,256
Exchange rate differences for equity accounted investees	(1,215)	(468)
Effective portion of changes in fair value of cash flow hedges	886	94
Items that will not be reclassified to profit or loss:		
Changes related to post-employment benefit obligations	(3,354)	4,858
Other comprehensive income, net of income tax	**30,460**	**11,740**
Total Comprehensive income for the period	**45,312**	**(14,008)**
Total comprehensive income attributable to:		
Equity holders of the Company	42,778	(14,882)
Non-controlling interests	2,534	874
Total Comprehensive income for the period	**45,312**	**(14,008)**

The notes on pages 183 to 248 are an integral part of these Consolidated financial statements

Non-GAAP performance measure

In € thousands	Note	2019	2018
Net income from operations[1]			
Result for the period attributable to equity holders (net income)		12,302	(26,701)
Amortization identifiable intangible assets, net of taxes		13,950	17,769
Goodwill impairment charges, net of taxes	13	–	40,386
Valuation changes of acquisition-related provisions, net of taxes	28	(364)	(4,754)
M&A&D costs		10,159	1,000
Expected Credit loss on shareholder loans and corporate guarantees	16	82,431	53,925
One-off pension cost	27	–	4,242
Lovinklaan employee share purchase plan[2]	9	1,303	1,724
Net income from operations		**119,781**	**87,591**
Net income from operations per share[1] (in €)			
Basic earnings per share	12	1.36	1.01
Diluted earnings per share	12	1.34	1.01

1 Non-GAAP performance measure, to provide transparency on the underlying performance of our business. Reference is made to the Glossary Financial & Non-Financial indicators on page 277 for the definition as used by Arcadis

2 The Lovinklaan employee share purchase plan is controlled by the Lovinklaan Foundation, and the Company has no influence on this scheme. Accordingly, the Company treats the related share-based expense as non-operational

Consolidated Balance sheet

as at 31 December

In € thousands	Note	2019	2018
Assets			
Non-current assets			
Intangible assets and goodwill	13	1,079,793	1,054,246
Property, plant & equipment	14	100,735	103,578
Right-of-use assets	15	266,769	–
Investments accounted for using the equity method	16	7,528	7,756
Other investments	17	2,280	637
Deferred tax assets	11	22,892	36,261
Pension assets for funded schemes in surplus	27	3,706	2,040
Derivatives	18	1,240	1,637
Other non-current assets	19	27,595	26,548
Total Non-current assets		**1,512,538**	**1,232,703**
Current assets			
Inventories		201	217
Derivatives	18	6,252	10,058
Trade receivables	20	602,900	583,740
Contract assets (unbilled receivables)	21	669,849	545,492
Corporate tax receivables	11	23,189	31,095
Other current assets	23	51,453	64,055
Assets classified as held for sale	22	–	377
Cash and cash equivalents	24	296,895	240,815
Total Current assets		**1,650,739**	**1,475,849**
Total Assets		**3,163,277**	**2,708,552**

	Note	2019	2018
Equity and liabilities			
Shareholders' equity			
Total equity attributable to equity holders of the Company	25, 45	**962,511**	**941,920**
Non-controlling interests	26	2,876	2,199
Total Equity		**965,387**	**944,119**
Non-current liabilities			
Provisions for employee benefits	27	49,493	45,848
Provisions for other liabilities and charges	28	23,057	21,743
Deferred tax liabilities	11	39,386	66,393
Loans and borrowings	29	460,583	385,961
Lease liabilities	15	215,461	100
Derivatives	18	822	1,115
Total Non-current liabilities		**788,802**	**521,160**
Current liabilities			
Contract liabilities (billing in excess of revenue)	21	285,044	255,581
Provision for onerous contracts (loss provisions)	21	90,545	115,643
Current portion of provisions	28	23,306	14,955
Corporate tax liabilities	11	42,349	35,925
Current portion of loans and short-term borrowings	29	150,206	202,163
Current portion of lease liabilities	15	75,661	–
Derivatives	18	4,657	9,614
Bank overdrafts	24	472	135
Accounts payable, accrued expenses and other current liabilities	30	736,848	609,257
Total Current liabilities		**1,409,088**	**1,243,273**
Total Liabilities		**2,197,890**	**1,764,433**
Total Equity and liabilities		**3,163,277**	**2,708,552**

The notes on pages 183 to 248 are an integral part of these Consolidated financial statements

Consolidated Statement of changes in equity

In € thousands	Note	Share capital	Share premium	Hedge reserve	Translation reserve	Retained earnings	Shareholder equity	Non-controlling interests	Total equity
		Attributable to equity holders of the Company							
Balance at 31 December 2017		**1,748**	**372,533**	**(1,525)**	**(89,058)**	**694,188**	**977,886**	**2,691**	**980,577**
Impact of changes in accounting policies		–	–	–	–	(6,664)	(6,664)	–	(6,664)
Balance at 1 January 2018		**1,748**	**372,533**	**(1,525)**	**(89,058)**	**687,524**	**971,222**	**2,691**	**973,913**
Result for the period		–	–	–	–	(26,701)	(26,701)	953	(25,748)
Other comprehensive income:									
Exchange rate differences		–	–	–	6,867	–	6,867	(79)	6,788
Effective portion of changes in fair value of cash flow hedges	18	–	–	160	–	–	160	–	160
Taxes related to effective portion of changes in fair value of cash flow hedges	11	–	–	(66)	–	–	(66)	–	(66)
Remeasurements on post-employment benefit obligations	27	–	–	–	–	5,793	5,793	–	5,793
Taxes related to remeasurements on post-employment benefit obligations	11	–	–	–	–	(935)	(935)	–	(935)
Other comprehensive income, net of income taxes		**–**	**–**	**94**	**6,867**	**4,858**	**11,819**	**(79)**	**11,740**
Total comprehensive income for the period		**–**	**–**	**94**	**6,867**	**(21,843)**	**(14,882)**	**874**	**(14,008)**
Transactions with owners of the Company:									
Acquisitions and transactions with non-controlling interests	26	–	–	–	–	–	–	(806)	(806)
Dividends to shareholders	25	–	(26,716)	–	–	(13,693)	(40,409)	(560)	(40,969)
Issuance of shares	25	32	26,684	–	–	–	26,716	–	26,716
Share-based compensation	9	–	–	–	–	6,686	6,686	–	6,686
Taxes related to share-based compensation	11	–	–	–	–	101	101	–	101
Purchase of own shares	25	–	–	–	–	(10,307)	(10,307)	–	(10,307)
Share options exercised	25	–	–	–	–	2,793	2,793	–	2,793
Total transactions with owners of the Company		**32**	**(32)**	**–**	**–**	**(14,420)**	**(14,420)**	**(1,366)**	**(15,786)**
Balance at 31 December 2018		**1,780**	**372,501**	**(1,431)**	**(82,191)**	**651,261**	**941,920**	**2,199**	**944,119**

Consolidated Statement of changes in equity

In € thousands	Note	Share capital	Share premium	Hedge reserve	Translation reserve	Retained earnings	Shareholder equity	Non-controlling interests	Total equity
		Attributable to equity holders of the Company							
Impact of changes in accounting policies	3	–	–	–	–	971	971	–	971
Balance at 1 January 2019		**1,780**	**372,501**	**(1,431)**	**(82,191)**	**652,232**	**942,891**	**2,199**	**945,090**
Result for the period		–	–	–	–	12,302	12,302	2,550	14,852
Other comprehensive income:									
Exchange rate differences		–	–	–	32,944	–	32,944	(16)	32,928
Effective portion of changes in fair value of cash flow hedges	18	–	–	962	–	–	962	–	962
Taxes related to effective portion of changes in fair value of cash flow hedges	11	–	–	(76)	–	–	(76)	–	(76)
Remeasurements on post-employment benefit obligations	27	–	–	–	–	(3,905)	(3,905)	–	(3,905)
Taxes related to remeasurements on post-employment benefit obligations	11	–	–	–	–	551	551	–	551
Other changes		–	–	–	829	(829)	–	–	–
Other comprehensive income, net of income taxes		**–**	**–**	**886**	**33,773**	**(4,183)**	**30,476**	**(16)**	**30,460**
Total comprehensive income for the period		**–**	**–**	**886**	**33,773**	**8,119**	**42,778**	**2,534**	**45,312**
Transactions with owners of the Company:									
Acquisitions and transactions with non-controlling interests	26	–	–	–	–	(15,748)	(15,748)	(602)	(16,350)
Dividends to shareholders	25	–	(23,477)	–	–	(17,766)	(41,243)	(1,256)	(42,499)
Issuance of shares	25	29	23,448	–	–	–	23,477	–	23,477
Share-based compensation	9	–	–	–	–	11,545	11,545	–	11,545
Taxes related to share-based compensation	11	–	–	–	–	1,598	1,598	–	1,598
Purchase of own shares	25	–	–	–	–	(13,613)	(13,613)	–	(13,613)
Share options exercised	25	–	–	–	–	10,826	10,826	–	10,826
Total transactions with owners of the Company		**29**	**(29)**	**–**	**–**	**(23,158)**	**(23,158)**	**(1,858)**	**(25,016)**
Balance at 31 December 2019		**1,809**	**372,472**	**(545)**	**(48,418)**	**637,193**	**962,511**	**2,876**	**965,387**

The notes on pages 183 to 248 are an integral part of these Consolidated financial statements

Consolidated Cash flow statement

for the year ended 31 December

In € thousands	Note	2019	2018
Cash flows from operating activities			
Result for the period		**14,852**	**(25,748)**
Adjustments for:			
Depreciation and amortization	13, 14, 15	116,641	42,600
Amortization other identifiable intangible assets	13	16,609	22,721
Impairment charges	13	–	40,386
Income taxes	11	39,898	30,413
Net finance expense	10	39,520	27,111
Expected Credit Loss on shareholder loans and corporate guarantees	16	82,431	53,925
Result from Investments accounted for using the equity method	16	(1,251)	12,692
Change in Inventories		20	18
Change in Contract assets and liabilities, provision for onerous contracts		(117,482)	31,848
Change in Trade receivables		(5,979)	5,583
Change in Accounts payable		38,016	(6,004)
Change in Net working capital		**(85,425)**	**31,445**
Change in Other receivables		1,321	22,111
Change in Current liabilities		35,865	15,617
Change in Other working capital		**37,186**	**37,728**
Change in Provisions	27, 28	3,361	(9,321)
Share-based compensation	9	11,545	6,686
Gains/losses on derecognition of leases		(96)	–
Change in operational derivatives		16	89
Settlement of operational derivatives		(77)	(10)
Dividend received		1,531	–
Interest received		5,612	15,927
Interest paid		(30,547)	(37,732)
Corporate tax paid		(34,046)	(34,739)
Net cash from operating activities		**217,760**	**214,173**

	Note	2019	2018
Cash flows from investing activities			
Investments in (in)tangible assets	13, 14	(48,461)	(68,764)
Proceeds from sale of (in)tangible assets		2,726	3,640
Investments in consolidated companies	5	(7,299)	(9,964)
Proceeds from sale of consolidated companies		–	37
Investments in/loans to associates and joint ventures	16	(17,511)	(31,848)
Proceeds from (sale of) associates and joint ventures	16	–	1,923
Investments in other non-current assets and other investments	17, 19	(7,000)	(2,640)
Proceeds from (sale of) other non-current assets and other investments	17, 19	4,714	5,999
Net cash (used in)/from investing activities		**(72,831)**	**(101,617)**
Cash flows from financing activities			
Transactions with non-controlling interest	5	(7,952)	–
Proceeds from exercise of options	25	10,826	2,793
Proceeds from issuance of shares	25	–	–
Purchase of own shares	25	(13,613)	(10,307)
Settlement of financing derivatives	18	1,487	3,264
New long-term loans and borrowings	29	265,974	110
Repayment of long-term loans and borrowings	29	(266,455)	(3,084)
New short-term borrowings	29	267,000	230,000
Repayment of short-term borrowings	29	(250,000)	(347,345)
Payment of lease liabilities	15	(74,808)	–
Dividends paid		(19,019)	(14,290)
Net cash (used in)/from financing activities		**(86,560)**	**(138,859)**
Net change in Cash and cash equivalents less Bank overdrafts		**58,370**	**(26,303)**
Exchange rate differences		(2,627)	846
Cash and cash equivalents less Bank overdrafts at 1 January		240,680	266,137
Cash and cash equivalents less Bank overdrafts at 31 December		**296,423**	**240,680**

The notes on pages 183 to 248 are an integral part of these Consolidated financial statements

Notes to the Consolidated financial statements

1 General information

Arcadis NV is a public company organized under Dutch law. Its statutory seat is Amsterdam and its principal office is located at:

Gustav Mahlerplein 97-103
1082 MS Amsterdam
The Netherlands

Arcadis NV and its consolidated subsidiaries ('Arcadis', 'the Group' or 'the Company') is the leading global Design & Consultancy firm for natural and built assets. Applying deep market sector insights and collective design, consultancy, engineering, project and management services, the Company works in partnership with clients to deliver exceptional and sustainable outcomes throughout the lifecycle of their natural and built assets.

In accordance with Articles 2:379 and 414 of the Dutch Civil Code, the list of subsidiaries and investments accounted for using the equity method is filed with the Chamber of Commerce in Amsterdam, the Netherlands.

2 Basis of preparation

Statement of compliance

The Consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union and in conformity with Part 9 of Book 2 of the Dutch Civil Code. The Company financial statements have been prepared using the option of article 2:362 of the Dutch Civil Code, meaning that the accounting principles used are the same as for the Consolidated financial statements.

The Consolidated financial statements were authorized for issue by the Executive Board and Supervisory Board on 12 February 2020. The Consolidated financial statements as presented in this Annual Integrated Report are subject to adoption by the General Meeting of Shareholders, to be held on 6 May 2020.

Basis of measurement

The Consolidated financial statements have been prepared on historical cost basis, except for the following items, which are measured at a different basis on each reporting date:

- derivative financial instruments and share-based compensation arrangements, which are measured at fair value;
- net defined benefit (asset)/liability, which is measured at the fair value of plan assets less the present value of the defined benefit obligation;
- contingent consideration assumed in a business combination, which is measured at fair value; and
- financial assets at fair value through profit or loss, which are measured at fair value.

For more detailed information on the measurement basis reference is made to the significant accounting policies as included in the relevant notes to the Consolidated financial statements.

Basis of consolidation

The Consolidated financial statements include the accounts of Arcadis NV and its subsidiaries, and the Company's interests in jointly controlled entities and associates. Intra-group balances and transactions, and any unrealized gains and losses or income and expenses arising from intra-group transactions, are eliminated in preparing the Consolidated financial statements. Unrealized gains arising from transactions with associates and joint ventures are eliminated against the investment to the extent of the Company's interest in the investee. Unrealized losses are eliminated in the same way as unrealized gains, but only to the extent that there is no evidence of impairment.

Comparative figures

No material events occurred that resulted in an amendment of the comparative figures due to changes in accounting policies or errors. The implementation of IFRS 16 and IFRIC 23 did not result in restatements of the 2018 closing balance but did lead to adjustments to the 2019 opening balance (see note 3).

Foreign currencies

Functional and reporting currency

The Consolidated financial statements are presented in euros, which is the Company's functional and reporting currency. All amounts shown in the financial statements are in thousands of euros unless otherwise stated. Items included in the financial information of each of Arcadis' entities are measured using the currency of the primary economic environment in which the entity operates (the functional currency). If the functional currency of a (foreign) subsidiary, joint venture or associate is not the euro, foreign currency exchange differences arising from translation are recognized as translation differences in Other comprehensive income and presented in the Translation reserve in equity.

Foreign currency transactions

Transactions in foreign currencies are translated into the functional currency of entities using the foreign exchange rate at transaction date. The functional currency of the foreign entities is in general the local currency. Monetary assets and liabilities denominated in foreign currencies are translated to the functional currency of the entity using the exchange rates at the balance sheet date.

Exchange rate differences are included in profit or loss. Non-monetary assets and liabilities that are measured at fair value in a foreign currency are translated into the functional currency at the exchange rate when the fair value was determined. Non-monetary items that are measured based on historical cost in a foreign currency are translated at the exchange rate at the date of the transaction.

Foreign operations

The assets and liabilities of foreign operations, including Goodwill and fair value adjustments arising on acquisitions, are translated to euros at exchange rates at the reporting date. The income and expenses of foreign operations are translated into euros using average exchange rates, approximating the foreign exchange rates at transaction date.

Foreign currency differences are recognized in Other comprehensive income and presented in the Translation reserve in Equity. For subsidiaries not wholly owned, the relevant proportionate share of the translation difference is allocated to the Non-controlling interests. When a foreign operation is disposed of, in part or in full, the relevant amount in the Translation reserve is transferred to profit or loss as part of the gain or loss on disposal.

Accounting estimates and management judgements

The preparation of the Consolidated financial statements requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses as well as the information disclosed. This includes:

- Trade receivables - see note 20;
- Right-of-use assets and lease liabilities – see note 15;
- Taxation - see note 11;
- (Goodwill) impairment testing – see note 13;
- Investments accounted for using equity method and related guarantees – see note 16;
- Contract assets (unbilled receivables) and contract liabilities (billing in excess of revenue) – see note 21;
- Provisions – see notes 27 and 28; and
- Capital and financial risk management – see note 31.

The key accounting estimates and judgements in preparing the Consolidated financial statements are further explained in the relevant notes to the Consolidated financial statements. In general, the judgements, estimates and assumptions are based on market information, knowledge, historical experience and other factors that management believes to be reasonable under the circumstances. Actual results may differ from these estimates.

Judgements, estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised and in any future periods affected.

Impairment

The carrying amounts of the assets of Arcadis, other than Contract assets and liabilities, Deferred tax assets and Financial instruments, are reviewed at each reporting date to determine whether there is any indication of impairment. If such indication exists, then the assets recoverable amount is estimated. Goodwill and other assets that have an indefinite useful life are tested annually for impairment, and when an impairment trigger is identified.

For impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or cash-generating units (CGUs). Goodwill arising from a business combination is allocated to CGUs or Groups of CGUs that are expected to benefit from the synergies of the combination.

The recoverable amount is the greater of the fair value less costs to sell and value in use. In assessing the value in use, estimated future cash flows are discounted to present values using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. An impairment loss is recognized whenever the carrying amount of an asset or its CGU exceeds its recoverable amount.

Impairment losses are recognized in profit or loss. Impairment losses recognized regarding CGUs are allocated first to reduce the carrying amount of any goodwill allocated to CGUs and then to reduce the carrying amount of the other assets in the unit on a pro-rata basis.

An impairment loss of goodwill is not reversed. Regarding other assets, an impairment loss can be reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

Financial instruments

Non-derivative financial assets

Financial assets include trade receivables, other receivables and loans and borrowings. Loans, receivables, and deposits are recognized on the date they are originated. All other financial assets are recognized initially on trade date when the Company becomes a party to the contractual provisions of the instrument. Financial assets are derecognized when the rights to receive cash flows from the financial assets have expired or have been transferred and the Group has transferred substantially all the risks and rewards of ownership.

All financial instruments are initially measured at fair value plus or minus, in the case of a financial asset not at fair value through profit or loss, transaction costs. The Group classifies its financial assets as those to be measured subsequently at fair value (either through Other comprehensive income or through profit or loss) or those to be measured at amortized cost. The classification depends on the purpose for which the financial assets were acquired. Management determines the classification of the financial assets at initial recognition, based on the business model for managing the assets and the contractual terms of the cash flows, and assesses the designation at each reporting date.

Offsetting of financial assets and liabilities

Financial assets and liabilities are offset and reported as a net amount in the balance sheet when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis or realize the asset and settle the liability simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business and in the event of default, insolvency or bankruptcy of the Company or the counterparty.

Cash flow statement

The Cash flow statement has been prepared using the indirect method. Cash flows in foreign currencies have been translated into euros using average exchange rates, approximating the foreign exchange rate at transaction date. Exchange rate differences on cash items are shown separately in the Cash flow statement. Receipts and payments with respect to income tax and interest are included in the Cash flows from operating activities. The cost of acquisition of subsidiaries, associates and joint ventures, and other investments, insofar as it was paid for in cash, is included in Cash flows from investing activities. Acquisitions or divestments of subsidiaries are presented net of cash balances acquired or disposed of, respectively. Cash flows from derivatives are recognized in the Cash flow statement in the same category as those of the hedged item.

Recent accounting developments

On 1 January 2019, several new standards, amendments to standards and interpretations became effective for annual periods beginning on or after 1 January 2019. The impact of changes in accounting policies on the opening balance of the Company is disclosed in note 3.

There are no new standards to be implemented by the Company, but several amendments to standards and issued interpretations become effective on 1 January 2020. These are not expected to have a material impact on the Company's financial position.

Developments relating to the published exposure draft of the new standard 'General Presentation and Disclosures', which is intended to replace IAS 1, are monitored by the Company.

3 Changes in (significant) accounting policies

As of 1 January 2019, Arcadis adopted IFRS 16 and IFRIC 23. IFRS 16 replaces IAS 17 and changes how Arcadis, as lessee, accounts for its operating leases. IFRIC 23 clarifies the accounting for uncertainties in income taxes.

Amendments to IFRS 9 (prepayment features with negative compensation), IAS 28 (long-term interests in associates and joint ventures, early adopted in 2018), IAS 19 (plan amendment, curtailment or settlement), IFRS 3 and IFRS 11 (control over joint operation), IAS 12 (income tax dividends on financial instruments classified as equity) and IAS 23 (borrowing costs on assets ready for use or sale) are assessed and do not impact the opening balance of 1 January 2019.

IFRIC 23 'Uncertainty over Income Tax Treatments'

IFRIC 23 clarifies the accounting for uncertainties in income taxes. When the Group considers it probable that tax authorities accept a tax treatment it will be treated as such in the income tax filings. When it is not considered probable that a tax treatment is accepted, the Group uses the most likely amount or the expected value of the tax treatment. The impact assessment led to the conclusion that there is no cumulative effect of initially applying the interpretation to be recognized in Shareholders' equity of 1 January 2019.

IFRS 16 'Leases'

Key messages:

- Material impact on Arcadis' financial statements and financial performance indicators;
- Accounting change only, no (net) cash impact;
- No change of Arcadis' strategy and financial framework;
- Lease costs shift from Other operational costs to Depreciation and Net finance (interest) expense; positive impact on operating income; and
- Bank covenant reporting is lease-adjusted.

IFRS 16 introduced a single, on-balance sheet accounting model for leases (mainly offices and vehicles). As a result, the Group, as a lessee, has recognized right-of-use assets representing its right to the underlying assets and lease liabilities representing its obligation to make lease payments.

The Group has applied IFRS16 using the modified retrospective approach, under which the cumulative effect of initial application is recognized in retained earnings at 1 January 2019. Accordingly, the comparative information presented for 2018 has not been restated - i.e. is presented, as previously reported, based on IAS 17 and related interpretations, which is permitted by the specific transition provisions in the standard.

The Group has adjusted its goodwill impairment test to include the right-of-use assets in the carrying amount of the CGUs. This has not led to a different outcome of the test compared to previous accounting policy for leases, see note 13 for further information.

Practical expedients applied

On transition as of 1 January 2019, the following practical expedients permitted by the standard are applied by the Group in applying IFRS 16:

- Using hindsight in determining the lease term if the contract contains options to extend or terminate the lease;
- Grandfathering the assessment of which contracts are or contain a lease at the date of initial application. IFRS 16 is only applied to contracts that were previously identified as leases under IAS 17 and IFRIC 4;
- Short term residual duration (i.e existing lease contracts with a residual duration at the moment of initial application of IFRS 16 of 12 months or less); and
- Adjust the opening balance of right of use assets by amount of any provision for onerous contracts recognized in the balance sheet before date of initial application.

After transition, the Group has applied the practical expedient of not recognizing right-of-use assets and lease liabilities for:

- Low value leases (individual items with a value of <€5,000 or equivalent); and
- Short term leases (duration of twelve months or less).

Lease payments associated with the exempted leased assets are recognized as an expense on a straight-line basis over the lease term and are included in 'Other operational costs'.

Significant accounting policies

See note 15 on the accounting policies relating to right-of-use assets and lease liabilities.

Impact on transition

On transition to IFRS 16, for leases classified as operating leases under IAS 17, lease liabilities were measured at the present value of the remaining lease payments, discounted at the incremental borrowing rate as at 1 January 2019. Right-of-use assets are measured at an amount equal to the lease liability, plus payments made before 1 January 2019, minus lease incentives received, and plus the estimated costs for dismantling, removal and/ or restoration. The restoration provision is presented separately from the lease liabilities.

The impact on transition to IFRS 16 is summarized in the table below. Accounts that were not affected by the changes have not been included. As a result, the sub-totals and totals disclosed cannot be recalculated from the numbers provided. The numbers have been refined since the Interim Financial Statements.

In € thousands	31 Dec 2018	Impact IFRS 16	1 Jan 2019
Non-current assets			
Property, plant and equipment	103,578	(1,597)	101,981
Right-of-use assets	–	275,473	275,473
Deferred tax assets	36,261	64	36,325
Current assets			
Other current assets	64,055	(6,028)	58,027
Total assets	**2,708,552**	**267,912**	**2,976,464**
Non-current liabilities			
Provisions for other liabilities and charges	21,743	2,578	24,321
Lease liabilities	–	219,256	219,256
Deferred tax liabilties	66,393	–	66,393
Current liabilities			
Current portion of provisions	14,955	(175)	14,780
Current portion of lease liabilities	–	70,733	70,733
Accrued expenses and other current liabilities	373,712	(25,451)	348,261
Total liabilities	**1,764,433**	**266,941**	**2,031,374**
Shareholders' equity			
Total equity attributable to equity holders of the Company	941,920	971	942,891
Total equity and liabilities	**2,708,552**	**267,912**	**2,976,464**

The Right-of-use asset at 1 January 2019 of €275.4 million is built up of the initial measurement of the lease liability of €290.0 million, plus pre-payments made before 1 January 2019 of €6.0 million, minus lease incentives (‘tenant improvement allowances’) received of €25.1 million plus estimated costs for restoration of €3.5 million and plus opening retained earnings of €1.0 million.

When measuring the opening balance lease liabilities, the Group discounted lease payments using its incremental borrowing rate at 1 January 2019 applicable to the remaining lease term. The weighted-average rate applied is 4.0%.

The reconciliation of the reported operating lease commitment at 31 December 2018 to the opening balance lease liability at 1 January 2019 is as follows:

In € thousands	
Operating lease commitments disclosed at 31 December 2018	356,180
Discounted using the incremental borrowing rate	296,412
Finance lease liabilities recognized as at 31 December 2018	100
Short-term leases not recognised as a liability	(6,285)
Low-value leases not recognised as a liability	(238)
Total lease liabilities at 1 January 2019	**289,989**
Current	70,733
Non-current	219,256
Total	**289,989**

The adjustments as a result of a different treatment of extension and termination options and changes in the index or rate of variable payables have been considered in the operating lease commitment disclosed at 31 December 2018 and the impact on transition is immaterial.

Impact for the period

Consolidated Income Statement for the year 2019 (condensed)

In € thousands	IFRS 16	IAS 17	Net impact
Net revenues [1]	2,576,602	2,576,602	0
Personnel costs	(1,995,787)	(1,995,787)	0
Other operational costs	(281,168)	(354,483)	(73,315)
Depreciation and amortization	(116,641)	(46,049)	70,592
Amortization other intangible assets	(16,609)	(16,609)	0
Other income	9,053	8,612	(441)
Total Operational costs	**(2,401,152)**	**(2,404,316)**	**(3,164)**
Operating income	**175,450**	**172,285**	**(3,164)**
Net finance expense	(39,520)	(29,711)	9,809
Expected Credit Loss on shareholder loans and corporate guarantees	(82,431)	(82,431)	0
Result from investments accounted for using the equity method	1,251	1,251	0
Profit before income tax	**54,750**	**61,394**	**6,644**
Income taxes	(39,898)	(40,915)	(1,017)
Result for the period	**14,852**	**20,479**	**5,627**
EBITDA[1]	**308,701**	**234,943**	**(73,758)**

[1] Non-GAAP performance measure. Reference is made to the Glossary Financial & Non-Financial indicators on page 277 for the definition as used by Arcadis

The result for the period based on IFRS 16 is lower due to the front-loading of interest expenses, as a result of the modified retrospective method applied as of 1 January 2019. Income from sub-leasing was previously reported by the Group as negative Other operational cost, whereby under IFRS 16 it is now included in Other income.

Consolidated Balance sheet as at 31 December 2019 (condensed)

In € thousands	IFRS 16	IAS 17	Net impact
Non-current assets			
Property, plant & equipment	100,735	103,210	(2,475)
Right-of-use assets	266,769	–	266,769
Deferred tax assets	22,892	31,228	(8,336)
Current assets			
Other current assets	51,453	57,632	(6,179)
Total Assets	**3,163,277**	**2,913,416**	**249,861**
Non-current liabilities			
Provisions for other liabilities and charges	23,057	22,547	510
Deferred tax liabilities	39,386	49,030	(9,644)
Lease liabilities	215,461	–	215,461
Current liabilities			
Current portion of provisions	23,306	23,102	204
Current portion of lease liabilities	75,661	–	75,661
Accounts payable, accrued expenses and other current liabilities	736,848	764,665	(27,817)
Total Liabilities	**2,197,890**	**1,943,694**	**254,196**
Shareholders' equity			
Total Equity attributable to equity holders of the Company	962,511	966,845	(4,334)
Total Equity and liabilities	**3,163,277**	**2,913,416**	**249,861**

The Right-of-use asset at 31 December 2019 of €266.7 million is built up of Lease liability of €291.1 million, plus carrying amount of payments made before 1 January 2019 of €3.1 million, minus the carrying amount of lease incentives ('tenant improvement allowances') received of €25.1 million, minus accrued expense of €6.4 million and plus the estimated costs for restoration of €4.0 million.

Consolidated cash flow statement for the year 2019 (condensed)

In € thousands	IFRS 16	IAS 17	Net impact
Cash flow from operating activities	217,760	142,952	74,808
Cash flow from investing activitites	(72,831)	(72,831)	–
Cash flow from financing activities	(86,560)	(11,752)	(74,808)
Net change in Cash and cash equivalents less Bank overdrafts	**58,369**	**58,369**	**–**
Free cash flow[1]	**97,217**	**97,217**	**–**

1 Non-GAAP performance measure. Reference is made to the Glossary Financial & Non-Financial indicators on page 277 for the definition as used by Arcadis. Noted is that the Free cash flow definition is adjusted in 2019 for lease payments

Impact on bank covenant ratios

The bank covenant ratios are not impacted by the transition to IFRS 16. Net debt and EBITDA for covenant reporting purposes are lease-adjusted. The Total Leverage Ratio at 31 December 2019 is 1.4 (31 December 2018: 2.0), based on a net debt according to bank covenants of €309.6 million, and did not exceed the maximum ratio of 3.0. See also note 31.

4 Segment reporting

An operating segment is a component of the Company that engages in business activities that can result in revenue and expenses, including revenues and expenses related to transactions with other components of the same Company.

The operating segment reporting follows the internal reporting used by the Executive Board of the Company, to manage the business, assess the performance based on the available financial information and to allocate the resources. The most important performance measure is EBITA (earnings before interest, tax, amortization of identifiable intangible assets, and impairment charges) as management believes this is key in evaluating the results of the segments relative to other companies that operate within the same industry. However, the Executive Board also receives information about the segment's revenue and assets.

Inter-segment pricing is determined on an arm's length basis. Segment results, assets and liabilities include items directly attributable to a segment as well as those that can be allocated on a reasonable basis.

The information used by management to monitor progress, and for decision-making about operational matters, is at operating segment level. The Company has a global network based on home market positions and operates in a local-to-local market, which enables it to maintain the relationships with clients and to understand the local market conditions. As a result, the geographic basis of the operating companies is the basis in determining the operating segments, whereby those geographical areas with economic and operating similarities are aggregated into one operating segment. This does not apply to CallisonRTKL, which has been identified as a separate operating and reportable segment, due to the nature of its services and being active in a global market.

Following IFRS 8, the Company has the following segments as at 31 December 2019:

Operating segment	Reportable segment
Americas	Americas (Americas)
Europe & Middle East	Europe & Middle East (EME)
Asia Pacific	Asia Pacific (APAC)
CallisonRTKL	CallisonRTKL

Arcadis Gen, the new global digital business of Arcadis, was announced in January 2020. In 2019 it was not an operating segment nor reportable segment under IFRS 8, but included in the Europe & Middle East segment.

Geographical information

Geographical information differs from the segment information in this note due to CallisonRTKL, which is included as a separate reportable segment, but is geographically represented in all the geographical regions listed below.

	Net revenues by origin		(In)tangible assets	
In € millions	2019	2018	2019	2018
Americas	1,007	904	418	471
Europe & Middle East	1,180	1,160	720	497
Asia Pacific	390	376	45	190
Total	**2,577**	**2,440**	**1,183**	**1,158**

Major customers

The Company has no customers that account for more than 10% of total annual revenues.

Consolidated financial statements

In € millions unless otherwise stated	Americas	EME	APAC	CallisonRTKL	Eliminations	**Total segments**	Corporate and unallocated amounts	**Total consolidated**
2019								
Timing of revenue recognition								
At a point in time	9.9	181.5	20.1	200.7	–	412.2	–	412.2
Over time	1,385.0	1,208.0	367.9	100.3	–	3,061.2	–	3,061.2
External Gross revenue	**1,394.9**	**1,389.5**	**388.0**	**301.0**	**–**	**3,473.4**	**–**	**3,473.4**
Inter-segment	1.5	13.6	3.6	3.6	(22.3)	–		–
Total Gross revenue	**1,396.4**	**1,403.1**	**391.6**	**304.6**	**(22.3)**	**3,473.4**	**–**	**3,473.4**
Materials, services of third parties and subcontractors	(537.3)	(258.0)	(41.5)	(82.4)	22.4	(896.8)	–	(896.8)
Net revenues [1]	859.1	1,145.2	350.1	222.2	–	2,576.6		2,576.6
Operating costs	(760.1)	(1,018.8)	(290.0)	(188.8)	–	(2,257.7)	(19.2)	(2,276.9)
Other income	0.3	6.5	0.0	1.2	–	8.0	1.0	9.0
Depreciation and amortization	(26.8)	(41.2)	(25.2)	(15.4)	–	(108.6)	(8.1)	(116.6)
EBITA[1]	**72.4**	**91.7**	**35.0**	**19.3**	**–**	**218.4**	**(26.3)**	**192.1**
Amortization other intangible assets	(1.2)	(7.7)	(4.2)	(3.5)	–	(16.6)	–	(16.6)
Goodwill impairment charges	–	–	–	–	–	–	–	–
Operating income	**71.2**	**84.0**	**30.7**	**15.8**	**–**	**201.8**	**(26.3)**	**175.5**
Net finance expense	(24.9)	(4.6)	(3.0)	(2.6)	–	(35.2)	(4.3)	(39.5)
Expected Credit Loss on shareholder loans and corporate guarantees	–	–	–	–	–	–	(82.4)	(82.4)
Result from investments accounted for using the equity method	0.2	1.0	–	–	–	1.2	–	1.2
Segment profit before income tax	**46.5**	**80.4**	**27.7**	**13.2**	**–**	**167.8**	**(113.0)**	**54.8**
Income taxes	(12.4)	(12.8)	(9.8)	(4.0)	–	(39.0)	(0.9)	(39.9)
Profit for the period	**34.1**	**67.6**	**17.9**	**9.2**	**–**	**128.8**	**(113.9)**	**14.9**
Non-controlling interests	(0.0)	(2.5)	–	–	–	(2.5)	–	(2.5)
Net income	**34.1**	**65.0**	**17.9**	**9.2**	**–**	**126.2**	**(113.9)**	**12.3**
Operating EBITA [1]	**75.2**	**94.0**	**37.9**	**18.4**	**–**	**225.5**	**(15.8)**	**209.7**
Net income from operations [1]	**35.1**	**72.3**	**21.4**	**11.5**	**–**	**140.3**	**(20.6)**	**119.8**
Total assets	**944.2**	**1,192.5**	**562.5**	**408.6**		**3,107.8**	**55.4**	**3,163.2**
Investments accounted for using the equity method	0.4	5.9	–	1.3	–	7.5	–	7.5
Other financial assets	18.5	7.8	0.2	3.0	–	29.5	0.9	30.4
Total liabilities	**899.8**	**489.2**	**183.0**	**156.2**	**–**	**1,728.2**	**469.8**	**2,198.0**
Total capital expenditure	**9.9**	**13.8**	**4.3**	**10.9**	**–**	**38.9**	**9.6**	**48.5**
Total number of employees [2]	**7,430**	**12,310**	**5,310**	**1,559**	**–**	**26,609**	**213**	**26,822**

[1] Non-GAAP performance measure. Reference is made to the Glossary Financial & Non-Financial indicators on page 277 for the definition as used by Arcadis
[2] As at 31 December, excluding temporary staff

In € millions unless otherwise stated	Americas	EME	APAC	CallisonRTKL	Eliminations	Total segments	Corporate and unallocated amounts	Total consolidated
2018								
Timing of revenue recognition								
At a point in time	36.6	260.6	0.2	8.1	–	305.5	–	305.5
Over time	1,149.9	1,131.8	375.1	293.3	–	2,950.1	–	2,950.1
External gross revenues	**1,186.5**	**1,392.4**	**375.3**	**301.4**	**–**	**3,255.6**	**–**	**3,255.6**
Inter-segment	2.6	9.5	4.6	4.7	(21.4)	–	–	–
Total Gross revenue	**1,189.1**	**1,401.9**	**379.9**	**306.1**	**(21.4)**	**3,255.6**	**–**	**3,255.6**
Materials, services of third parties and subcontractors	(433.7)	(268.6)	(48.5)	(86.3)	21.4	(815.7)	–	(815.7)
Net revenues[1]	755.4	1,133.3	331.4	219.8	–	2,439.9	–	2,439.9
Operating costs	(690.2)	(1,048.2)	(299.5)	(195.2)	–	(2,233.1)	(8.4)	(2,241.6)
Other income	0.1	3.0	2.6	0.1	–	5.8	–	5.8
Depreciation and amortization	(9.7)	(13.4)	(8.6)	(6.4)	–	(38.1)	(4.5)	(42.6)
EBITA[1]	**55.5**	**74.7**	**25.9**	**18.3**	**–**	**174.5**	**(13.0)**	**161.5**
Amortization other intangible assets	(1.5)	(12.1)	(6.2)	(3.2)	–	(23.0)	0.3	(22.7)
Goodwill impairment charges	(6.5)	(33.9)	–	–	–	(40.4)		(40.4)
Operating income	**47.6**	**28.7**	**19.7**	**15.1**	**–**	**111.1**	**(12.7)**	**98.4**
Net finance expense	(17.4)	–	(2.0)	0.1	–	(19.3)	(7.8)	(27.1)
Expected Credit Loss on shareholder loans and corporate guarantees[2]	–	–	–	–	–	–	(53.9)	(53.9)
Result from investments accounted for using the equity method[2]	–	0.6	–	–	–	0.6	(13.3)	(12.7)
Segment profit before income tax	**30.2**	**29.3**	**17.7**	**15.2**	**–**	**92.4**	**(87.7)**	**4.7**
Income taxes	(1.6)	(19.1)	(9.3)	(6.0)	–	(36.1)	5.7	(30.4)
Profit for the period	**28.6**	**10.1**	**8.4**	**9.2**	**–**	**56.3**	**(82.0)**	**(25.7)**
Non-controlling interests	–	(1.0)	–	–	–	(1.0)	–	(1.0)
Net income	**28.6**	**9.1**	**8.4**	**9.2**	**–**	**55.3**	**(82.0)**	**(26.7)**
Operating EBITA[1]	**58.7**	**83.5**	**27.1**	**20.4**	**–**	**189.7**	**(12.5)**	**177.2**
Net income from operations[1]	**89.3**	**52.8**	**13.8**	**12.8**	**–**	**168.7**	**(81.1)**	**87.6**
Total assets	**807.4**	**1,068.1**	**468.5**	**280.6**	**–**	**2,624.6**	**84.0**	**2,708.6**
Investments accounted for using the equity method[2]	0.1	6.4		1.3	–	7.8	–	7.8
Other financial assets	16.9	8.6	0.4	2.7	–	28.6	0.1	28.7
Total liabilities	**491.2**	**360.4**	**128.2**	**109.4**	**–**	**1,089.2**	**675.2**	**1,764.4**
Total capital expenditure	**13.9**	**11.9**	**15.3**	**8.0**	**–**	**49.1**	**19.6**	**68.7**
Total number of employees[3]	**6,981**	**12,213**	**5,249**	**1,676**	**–**	**26,119**	**209**	**26,328**

1 Non-GAAP performance measure. Reference is made to the Glossary Financial & Non-Financial indicators on page 277 for the definition as used by Arcadis
2 In 2018 the net investment in ALEN was transferred and is since then reported in Corporate
3 As at 31 December, excluding temporary staff

5 Consolidated interests and business combinations

Subsidiaries
Subsidiaries are all companies over which the Company has control. Control over an entity exists when the Company is exposed to, or has right to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control commences until the date on which control ceases.

Loss of control
Upon the loss of control, the assets and liabilities, non-controlling interests and other components of equity related to the subsidiary are derecognized. Any profit or loss arising on the loss of control is recognized in profit or loss. If a non-controlling interest in the subsidiary is retained, such interest is measured at fair value at the date control is lost. Subsequently, it is accounted for as an equity-accounted investee or as an available-for-sale financial asset, depending on the level of influence retained.

Business combinations
Business combinations are accounted for using the acquisition method as at acquisition date, which is the date on which control is transferred to the Company.

IFRS 3 establishes the following principles in relation to the recognition and measurement of items arising in a business combination:

- Recognition principle: Identifiable assets acquired, liabilities assumed, and non-controlling interests in the acquiree are recognized separately from goodwill. Acquired intangible assets must be recognized and measured at fair value in accordance with the principles if it is separable or arises from other contractual rights, irrespective of whether the acquiree had recognized the asset prior to the business combination occurring.
- Measurement principle: All assets acquired and liabilities assumed in a business combination are measured at acquisition-date fair value. This, for example, means that for contingent liabilities arising in a business combination the requirements of IAS 37 do not apply; contingent liabilities are measured at fair value.

Goodwill at acquisition date is measured as the fair value of the consideration transferred plus the recognized amount of any non-controlling interest in the acquiree less the net recognized amount (fair value) of the identifiable assets acquired and liabilities assumed.

The consideration transferred does not include amounts related to the settlement of pre-existing relationships. Such amounts are recognized in profit or loss.

Costs related to the acquisition, other than those associated with the issue of debt or equity securities incurred in connection with the business combination, are expensed.

Contingent consideration payable is recognized at fair value at the acquisition date. If the contingent consideration is classified as equity, it is not remeasured, and settlement is accounted for within equity. Otherwise, subsequent changes to the fair value of the contingent consideration are recognized in profit or loss.

If the Company obtains control of a business that is a joint operation, it remeasures previously held interests in that business.

The nature of business of the Arcadis subsidiaries listed on the next page is similar, except for CallisonRTKL (as described in note 4). They provide comprehensive knowledge-based consultancy, design, engineering and management services in the expertise areas of infrastructure, water, environment and buildings.

Arcadis NV indirectly holds 100% of the ordinary shares of all these subsidiaries but does not hold direct interests itself as a result of the intermediate holding structure within the Group. All subsidiaries are included in the financial consolidation. The proportion of the voting rights held directly by the parent company does not substantially differ from the proportion of ordinary shares held.

At 31 December 2019, the total non-controlling interest amounted to €2.9 million (2018: €2.2 million) and is as such not material for the Group.

The main consolidated companies as at 31 December 2019 are listed below:

Name of subsidiary	Country of incorporation
Americas	
Arcadis US, Inc.	United States of America
Arcadis Logos S.A.	Brazil
Europe & Middle East	
Arcadis Consulting Middle East Ltd.	United Kingdom
Arcadis LLP	United Kingdom
Arcadis Consulting (UK) Limited	United Kingdom
Arcadis Nederland BV	The Netherlands
Arcadis Deutschland GmbH	Germany
Arcadis France S.A.S.	France
Arcadis Belgium NV	Belgium
Asia Pacific	
Arcadis Asia Ltd.	Hong Kong
Arcadis Australia Pacific Holdings Pty Ltd.	Australia
CallisonRTKL	
CallisonRTKL, Inc.	United States of America

Changes in consolidated interests

2019

In March 2019, Arcadis acquired a 50% (majority) stake in the UK-headquartered Enterprise Asset Management Solutions (EAMS) Group, which is a leader in creating world-class, digitally enabled asset and safety management frameworks and Industry Solutions. As such, it strengthens the Group's ability to help organizations optimize and improve reliability, performance, efficiency and safety across the asset lifecycle. In December 2019 the remaining 50% stake has been acquired, resulting in 100% of the shares now owned by the Group.

The consideration for the EAMS business combination (initial 50% of the shares with majority of voting rights, completed in March 2019) amounted to £1.0 million (€1.1 million). The net identifiable assets acquired amounted to €0.7 million and the goodwill to €0.4 million. The acquisition accounting is provisional. Due to the relatively limited size of the Company, no further disclosures are provided.

For the remaining 50% of the shares, which is a transaction with non-controlling interest shareholders, an amount of £13.8 million (€16.3 million) was agreed. £6.8 million (€8.0 million) was paid on completion and £7.0 million (€8.1 million) is recognized as deferred consideration. This includes a £4.5 million (€5.2 million) contractual after-payment and a £2.5 million (€2.9 million) earn-out. An amount of €15.7 million has been recognized in equity as transaction with non-controlling interest shareholders.

During 2019, Arcadis sold its interest in several business activities in China and Indonesia, resulting in a loss of €2.7 million recognized in Other income and nil cash inflows.

There are no other material changes in consolidated interests in 2019 and thus no further disclosures are provided in this note.

2018

On 2 January 2018, Arcadis acquired all shares in SEAMS, a UK based software and analytics firm. Total consideration amounted to £11.4 million (€12.8 million) and goodwill to £7.6 million (€8.6 million). The acquisition accounting has been completed in 2018.

On 27 July 2018, Arcadis acquired all shares in IBUe GmbH, a people engineering consultancy for environment and energy. Total consideration amounted to €0.6 million and goodwill to €0.5 million. The acquisition accounting has been completed without material Purchase Price Allocation adjustments.

Deferred consideration

The contractual after-payments and earn-outs for acquisitions are disclosed below.

In € thousands	Initial recognition	Discount effect / interest	2019 Total	2018 Total
Balance at 1 January	**7,490**	**1,134**	**8,624**	**7,961**
Acquisitions	8,056	–	8,056	3,900
Interest accrual	–	477	477	506
Releases	(2,748)	–	(2,748)	(1,266)
Payments and redemptions	(3,200)	45	(3,155)	(2,401)
Exchange rate differences	485	192	677	(76)
Balance at 31 December	**10,083**	**1,848**	**11,931**	**8,624**

An amount of €4.8 million (2018: €5.2 million) of deferred consideration is reported as other long-term debt under ‘Loans and borrowings’ (see note 29). An amount of €7.2 million (2018: €3.4 million) is due within one year and reported as ‘Other current liabilities’ (see note 30).

At 31 December 2019, the deferred consideration relating to acquisitions prior to 2019 amounts to €3.9 million and relates to SEAMS (2018), E2 Manage Tech (2017) and Estudos Téchnicos eProjectos ETEP Ltda (2012). An amount of €3.2 million has been paid in 2019 relating to E2 Manage Tech and SEAMS.

Of the releases an amount of €2.4 million relates to a settlement of the SEAMS earn-out. Releases of after-payments are recognized in ‘Other income’ (see note 7).

6 Revenue

Revenue is recognized by the Group following the five-step model in IFRS 15, consisting of

1. identification of the contract;
2. identification of the performance obligations in the contract;
3. determination of the transaction price;
4. allocation of the transaction price to performance obligations in the contract, and
5. recognition of revenue.

Revenue is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties (e.g. VAT). It includes initial amounts agreed in the contract plus any variations in contract work and variable consideration, to the extent that it is highly probably that its inclusion will not result in a significant revenue reversal in the future when the uncertainty has been subsequently resolved.

The Group recognizes revenue when it transfers control over a product or service to a customer. For performance obligations that are transferred over time, revenues and costs are recognized in profit or loss in proportion to the percentage of completion of the transaction at reporting date. The percentage of completion is measured by actual (labor) costs incurred in relation to total estimated (labor) costs (input method). In the Group’s view this best reflects the value delivered to the customer in a business that mainly uses human and intellectual capital (of its employees) for completion of the performance obligations towards the customer.

For performance obligations that are transferred at a point in time, revenues and costs are recognized in profit or loss when the customer receives the ability to direct the use of the asset and substantially obtains all the benefits of it.

Licenses and Software as a Service
Revenue from (software) licenses is recognized over time, based on time elapsed, in case of a ‘right to access’. It is recognized at a point in time in case of a ‘right to use’, but not before the beginning of the license period. Revenue from Software as a Service (SaaS) is treated as a right to access and is recognized over time, based on time elapsed.

Contract costs and contract cost assets
Contract costs include the costs to fulfil a contract, such as direct labor, costs of materials, services of third parties and subcontractors, and costs that are explicitly chargeable to the customer under the contract. They are recognized as an asset in Contract assets and liabilities, if they are expected to be recovered.

Costs to obtain a contract are only recognized as a contract cost asset in Contract assets and liabilities if they are incremental and expected to be recovered. They are recognized on a systemic basis consistent with the recognition of costs to fulfill a contract.

Loss provisions
Estimates of project management are used to assess the progress and estimated outcome of a performance obligation. When it becomes probable that the total expected costs to complete all performance obligations in a contract exceed the total transaction price (consideration) of these performance obligations, a loss provision is recognized for the lower of the unavoidable costs and the costs of termination.

Financing component
Arcadis generally does not have any significant contracts where the period between the transfer of the promised goods or services to customer and the payment by the customer, as contractually agreed, exceeds one year. If applicable, the transaction price is adjusted for the time value of money.

Payments of customers after the agreed payment term are covered by the accounting policy on Trade receivables, see note 20.

Agent versus principal
For each performance obligation the Group assesses whether the nature of Arcadis’ commitment is to provide the goods and/or services itself, or to arrange for those good(s) and/or service(s) to be provided by another party. Arcadis assesses whether it controls the specified good(s) and/or service(s) before it is transferred to the customer.

Arcadis is typically a principal in case of subcontracted work, as Arcadis is primarily responsible for fulfilling the promise to provide the specified good(s) and/or service(s) and bears primary responsibility for it meeting customer specifications and has discretion in establishing the price towards the customer. When Arcadis acts as an agent, only the fee/commission is recognized on a net basis in Gross revenues.

Gross versus net revenues

Gross revenues consist of external revenues net of value-added tax, rebates and discounts and after eliminating sales within the Group. Net revenue is a non-GAAP performance measure, which represents revenue generated by own staff. It is a sub-total calculated as Gross revenue minus Materials, services of third parties and subcontractors, which are project-related costs of materials and services charged by third parties, including cost of subcontractors.

Disaggregation of revenues

Gross revenues arise from the following major categories:

In € thousands	2019	2018
Revenue from services	2,790,934	2,564,058
Construction contract revenue	675,065	686,333
Revenue from licenses	7,371	5,183
Total Gross revenue	**3,473,370**	**3,255,574**

Revenues from services rendered represent fee income receivable in respect of services provided during the period. Construction contracts include the rendering of services, which are directly related to the construction of assets, contracts for the destruction or restoration of assets, and the restoration of the environment following the demolition of assets. Revenues from licenses represent fee income receivable in respect of allowing customers using Arcadis' software, and mainly relate to Europe & Middle East.

In addition to the operating segments, the Executive Board also monitors certain financial information based on four areas of expertise. The revenues for each of these areas are as follows:

In € thousands	2019	2018
Infrastructure	744,597	738,832
Water	435,982	406,155
Environment	968,620	838,471
Buildings	1,324,171	1,272,116
Total Gross revenue	**3,473,370**	**3,255,574**

For revenue by reporting segment and geography see note 4.

Timing of revenue recognition

The timing of revenue recognition in 2019 was as follows:

In € thousands	2019	2018
At a point in time	411,791	305,807
Over time	3,061,579	2,949,767
Total Revenues	**3,473,370**	**3,255,574**

Contract balances

The Group has recognized the following assets and liabilities related to contracts with customers:

In € thousands	2019	2018
Other non-current assets	1,570	1,523
Trade receivables	602,900	583,740
Contract assets (unbilled receivables)	669,849	545,492
Other current assets	–	52
Contract liabilities (billing in excess of revenue)	(285,044)	(255,582)
Provision for onerous contracts (loss provisions)	(90,545)	(115,642)
Total	**898,730**	**759,583**

The Other non-current assets relate to long-term retentions. The Expected Credit Loss allowance is included in the Contract assets (unbilled receivables) balance, see note 21.

Contract costs

The Contract assets balance includes an amount of €1.1 million for incremental costs to obtain contracts (2018: €0.4 million). The practical expedient of paragraph 94 of IFRS 15, stating that those costs can be expensed when incurred if the amortization period is one year or less, is not applied.

Transaction price remaining performance obligations

The table below includes revenue expected to be recognized in the future related to performance obligations that are (partially) unsatisfied at the reporting date. The practical expedient of paragraph 121 of IFRS 15 is applied, and the table therefore does not disclose information about remaining performance obligations that have original expected durations of one year or less. The amounts therefore differ from the contracted backlog.

In € thousands	2020	2021	2022	After 2022	Total
Expected revenue from (partially) unsatisfied performance obligations	1,056,987	321,887	174,963	103,258	1,657,095

7 Other income

Other income includes results that arise from events or transactions that are clearly distinct from the ordinary activities of the Company. Gains or losses on the sale of assets are recognized as part of Other income.

In € thousands	2019	2018
Book gain / (loss) on sale of assets	(2,211)	1,297
Results from investments	704	(384)
Release of after-payments	2,748	1,266
Gain / (loss) on derecognition of leases	108	–
Sub-leasing income	328	–
Other	7,375	3,598
Total Other income	**9,053**	**5,777**

The book gain/(loss) on the sale of assets in 2019 includes, amongst others, the loss on the sale of several business activities in China and Indonesia of €2.7 million. In 2018 it included the gain on the sale of a building. The results from investments in 2019 relates to the fair value gain on Techstars, see note 17.

The release of after-payments in 2019 relates to the acquisition of SEAMS in 2018, as the earn-out has been renegotiated at a lower amount than previously recognized.

The category 'Other' in 2019 included €1.1 million of government grants (2018: €0.5 million), €2.9 million of non-project related reimbursements by third parties and several individually non-significant results of, amongst others, insurance refunds and indirect tax claims.

8 Operational costs

All employee-related costs as well as non-project-related out-of-pocket expenses, are recognized as operational cost as incurred.

In € thousands	2019	2018
Salaries and wages	1,559,450	1,454,052
Social charges	164,986	156,937
Pension and early retirement charges	69,936	68,312
Other personnel costs (including temporary labor)	201,415	207,613
Total Personnel costs	**1,995,787**	**1,886,914**

In € thousands	2019	2018
Occupancy	37,824	103,127
Travel	48,317	59,772
Office related	86,792	88,424
Audit and consultancy services	32,302	36,541
Insurances	16,585	17,315
Marketing and advertising	11,455	7,587
Other	47,893	41,920
Total Other operational costs	**281,168**	**354,686**

Share-based payment charges in scope of IFRS 2 are recognized in Salaries and wages. The average number of contract employees in 2019 was 26,587 (2018: 26,419).

The category 'Other' included in 2019, amongst others, the impact of changes in provisions for trade receivables of €3.8 million (2018: €10.2 million, expense), restructuring provision of €3.3 million (2018: €8.4 million, expense), litigation provisions of €1.0 million (2018: €5.9 million, income) (see note 28) and €10.0 million of costs related to ALEN (see note 16).

The Personnel and Other operational costs in 2019 include €13.7 million of costs relating to digitization (2018: €14.8 million).

Mainly occupancy and travel related costs are impacted by the new lease accounting standard and therefore not comparable to prior year. See also note 15.

9 Share-based compensation

The Company operates share-based incentive plans. The fair value of share-based compensations at grant date under the Arcadis long-term incentive plan is recognized as an employee expense (in Salaries and wages), with a corresponding increase in equity, over the vesting period. The amount recognized as an expense is adjusted to reflect the actual number of awards for which the related service and non-market performance conditions are expected to be met, such that the amount ultimately recognized as expense is based on the actual number of awards meeting these vesting conditions.

The fair value of the granted shares is measured using a Monte Carlo simulation model. Measurement inputs include the share price on measurement date, exercise price of the instrument, the expected volatility, weighted average expected life of the instrument and the risk-free interest rate.

As the fair value is amortized over the vesting period, the costs are recognized in the Income Statement. The amortization costs are adjusted for effects of cancelled and forfeited grants. The vesting and exercise of rights to acquire shares may be conditional to performance conditions and other conditions, as set by the Supervisory Board.

Long-term incentive plans

To stimulate the realization of long-term Company goals and objectives, Arcadis NV uses Long-Term Incentive Plans (LTIPs). Since 2014, securities under LTIPs are solely granted in the form of Restricted Share Units (RSUs) and represent an equal number of ordinary shares, subject to meeting the applicable vesting conditions. The RSUs will be converted into ordinary shares on the vesting date and are delivered as soon as practical thereafter.

RSUs are granted conditionally and depend on achieving/meeting certain conditions during the vesting period.

To prevent dilution, (a portion of) the shares required to meet the obligations from exercising LTIPs can be purchased by the Company (instead of issuing new shares), with due consideration to the Company's balance sheet, in particular available freely distributable reserves and available cash. Alternatively, shares may be issued, whereby it is intended to limit this to 1% of the number of issued shares.

Arcadis NV 2005 and 2010 Long-Term Incentive Plans

Options and RSUs annually granted to members of the Executive Board and selected senior executives were conditional and had a vesting period of three years. Vesting was dependent on performance criteria set forth in advance. The granting of such options and RSUs took place each year on or about the second day after the Annual General Meeting of Shareholders, whereby the exercise price for the options matched the closing price of Arcadis NV shares on the day of the grant.

In 2013, the last awards under the 2010 plan were granted.

Arcadis NV 2014 Long-Term Incentive Plan

In 2014, the Supervisory Board approved the continuation of the Arcadis NV 2010 Long-Term Incentive Plan in the form of the Arcadis NV 2014 Long-Term Incentive Plan (2014 LTIP). The revised Plan was approved by the General Meeting of Shareholders in May 2014.

The 2014 LTIP provides for a maximum of 10,000,000 shares or options to be allocated during a five-year period, all of which may be granted as 'qualified' options in accordance with Section 422 of the United States Internal Revenue Code 1986. Such 'qualified' options may be granted only to employees of the Company.

Options and shares granted are conditional in nature and depend on, amongst others, attaining a performance measure after three years. The performance measure is Total Shareholder Return (TSR), defined as stock price appreciation plus dividend yield.

Under this plan each year a three-year cycle began, whereby achievements are measured at the end of the vesting date against a peer group of companies of comparable size and breadth. Arcadis' position in the peer group determines whether the options and RSUs granted earlier become unconditional.

For all participants under the 2014 LTIP, the position of Arcadis within the peer group, after three years, determines the final number of shares that vest and become unconditional, in accordance with the following performance incentive zone:

RSUs that vest for management

Ranking	14-8	7	6	5	4	3	2	1
Vesting	0%	50%	75%	100%	125%	150%	175%	200%

RSUs that vest for senior executives

Ranking	12-14	10-11	7-9	6	5	4	3	2	1
Vesting	0%	25%	50%	75%	100%	100%	125%	125%	150%

Arcadis NV 2019 Long-Term Incentive Plan

In April 2019, the Arcadis NV 2019 Long-Term Incentive Plan has been approved by the Annual General Meeting of Shareholders. Based on this plan the Company can grant equity-settled and cash-settled awards to eligible employees. Conditional performance shares granted to Executive Board members must be held for two more years after vesting.

The RSUs granted in the first six months of 2019, have been granted under the 2019 LTIP. In summary the following applies to these grants:

- Annual grant to Executive Board (EB) and Executive Leadership Team (ELT) members: continued employment during the vesting period of three years, and achieving performance conditions (1/3 Total Shareholder Return, 1/3 Earnings per share and 1/3 sustainability)
- Annual grant to other employees: continued employment during the vesting period of three years; no performance conditions
- Special grant: continued employment during a vesting period of one year (50% of total special grant) and vesting period of two years (50% of total special grant); no performance conditions. The special grant (not applicable to EB and ELT members) has been made for retention purposes and to partially compensate for lost opportunity in the past.

For EB and ELT members, the position of Arcadis within the peer group, after three years, determines the final number of shares subject to meeting a Total Shareholder Return condition (1/3) that vest and become unconditional, in accordance with the following performance incentive zone:

RSUs that vest for EB/ELT

Ranking	14-8	7	6	5	4	3	2	1
Vesting	0%	50%	75%	100%	125%	150%	175%	200%

Outstanding options

The number and weighted average exercise price of the share options under the 2005 and 2010 Arcadis LTIPs are as follows:

	Number of options	Weighted average exercise price (in €)
Balance at 1 January 2018	**2,506,862**	**16.03**
Increase/(decrease) by performance measure	–	–
Exercised	(190,170)	13.74
Expired	(68,621)	19.12
Cancelled	(72,241)	16.79
Balance at 31 December 2018	**2,175,830**	**16.09**
Increase/(decrease) by performance measure	–	–
Exercised	(757,115)	14.27
Expired	(92,997)	15.66
Cancelled	(31,575)	16.63
Balance at 31 December 2019	**1,294,143**	**17.18**

The weighted average share price at exercise date in 2019 was €17.44 (2018: €18.08).

The number of outstanding options at 31 December 2019 is as follows:

Year of issue	Share price at grant date	Outstanding 1 January 2019	Exercised in 2019	Expired in 2019	Cancelled in 2019	Outstanding 31 December 2019
2009	€12.06	275,192	(229,995)	(44,622)	(575)	–
2010	€14.33	191,147	(122,141)	–	–	69,006
2010	€16.84	16,500	–	(3,000)	(3,000)	10,500
2011	€16.18	254,873	(139,671)	(1,240)	–	113,962
2011	€16.48	54,664	–	(6,761)	–	47,903
2011	€14.06	197,000	(39,750)	–	(2,800)	154,450
2012	€14.72	306,666	(110,239)	–	(16,000)	180,427
2012	€15.74	390,957	(105,319)	(9,074)	–	276,564
2013	€20.96	478,831	–	(28,300)	(9,200)	441,331
2013	€18.26	10,000	(10,000)	–	–	–
Total		**2,175,830**	**(757,115)**	**(92,997)**	**(31,575)**	**1,294,143**

The weighted average exercise price of the share options exercisable at 31 December 2019 is €17.18 (2018: €16.09).

Outstanding Restricted Share Unit (RSUs)

In 2019, the following number of RSUs have been granted under the 2019 LTIP:

	Number of RSUs	Grant date	Vesting date	Share price at grant date	Fair value at grant date
Annual grant EB/ELT	180,180	29-apr-2019	29-apr-2022	€ 16.90	€ 21.45/€ 15.72
Additional grant ELT	9,001	1-oct-2019	1-oct-2021	€ 17.12	€ 16.19
Annual grant other employees	316,381	29-apr-2019	29-apr-2022	€ 16.90	€ 15.72
Special grant	81,669	29-apr-2019	29-apr-2020	€ 16.90	€ 16.43
Special grant	81,669	29-apr-2019	29-apr-2021	€ 16.90	€ 15.97

The fair value of the RSUs granted to other employees and the RSUs granted to the EB and ELT members subject to meeting Earnings per share (1/3) and sustainability (1/3) conditions was determined by adjusting the share price at the grant date with the present value of dividends expected to be paid during the vesting period. The fair value of RSUs granted to EB and ELT members subject to meeting a Total Shareholder Return condition (1/3) was determined using a Monte Carlo simulation model, which considers the market conditions expected to impact Arcadis' TSR performance in relation to the peer group, and the following assumptions:

	2019	2018
Expected dividend yield (in %)	2.74	2.94
Risk-free interest rate (in %)	(0.16)	0.02
Expected volatility (in %)	38.66	41.26

The expected volatility is calculated based on the share price movements of the 36 months prior to grant date.

The total outstanding RSUs at 31 December 2019 is as follows:

Year of issue	Granted	Unconditional in	Total amount to be expensed over the vesting period (in €)	Share price at grant date	Outstanding 1 January 2019	Granted in 2019	Decrease by performance measure 2019	Vested in 2019	Cancelled/ forfeited in 2019	Outstanding 31 December 2019
2016 (27 April)	901,530	2019	5,297,987	€14.30	686,908	–	(655,928)	–	(30,980)	–
2017 (28 April)	1,085,815	2020	17,471,310	€15.91	926,141	–	–	–	(124,900)	801,241
2018 (26 April)	697,522	2021	8,265,635	€15.75	671,813	–	–	–	(58,846)	612,967
2018 (July - September)	5,615	2021	97,710	€15.19	5,615	–	–	(1,672)	–	3,943
2019 (29 April)	316,381	2022	4,973,509	€15.72	–	316,381	–	(839)	(13,499)	302,043
2019 (29 April)	180,180	2022	3,176,573	€21.45/€15.72	–	180,180	–	–	–	180,180
2019 (29 April)	81,669	2020	1,341,822	€16.43	–	81,669	–	(1,188)	(1,848)	78,633
2019 (29 April)	81,669	2021	1,304,254	€15.97	–	81,669	–	(1,104)	(3,452)	77,113
2019 (1 October)	9,001	2021	145,726	€16.19	–	9,001	–	–	–	9,001
Total					**2,290,477**	**668,900**	**(655,928)**	**(4,803)**	**(233,525)**	**2,065,121**

LTIP costs recognized in 2019

The total amount to be expensed over the vesting period is calculated by taking the granted RSUs within a calendar year multiplied by the fair value of the RSUs at grant date and the expected vesting. This amount is expensed over the vesting period, whereby the costs recognized in a year also consider cancellations and forfeitures. The expected vesting for RSUs with a Total Shareholder Return performance condition is already taken into account in the fair value.

The expected vesting for the RSUs granted to the Executive Board and Executive Leadership Team subject to the performance conditions 'Earnings per share' and 'Sustainability' are estimated at 31 December 2019 at 100%.

Costs for the LTIP are spread over the vesting period and included in 'Salaries and wages' (see note 8). An amount of €10.2 million (2018: €5.1 million) is included in the results of 2019 for the share-based compensation granted to employees in the period 2017 - 2019. This is excluding a €1.3 million expense relating to the Employee Share Purchase Plan (2018: €1.7 million).

Employee Share Purchase Plan (Lovinklaan Foundation)

The Company facilitates an Employee Share Purchase Plan (ESPP), also called the Global Share Plan (GSP), that allows employees to periodically purchase shares in the Company at a set discount. Shares and discounts are made available by the Lovinklaan Foundation. The ESPP has been implemented in several countries where the Company is located. The personal investment per employee is maximized at €400 per month.

A total of 3,432 employees participated in the plan at 31 December 2019 (2018: 3,436). The cost included in the Company's financial statements amounted to €1.3 million (2018: €1.7 million). As the ESPP is controlled by the Lovinklaan Foundation and the Company has no influence on this scheme, the related share-based expenses are treated as non-operational and excluded from Net Income from Operations.

10 Net finance expenses

Net finance expenses comprise finance income, finance expenses and the fair value change of derivatives at fair value through profit or loss. Finance income comprises interest income on funds invested and finance expenses comprise interest expense on borrowings, and the unwinding of discount on provisions and contingent consideration.

Finance income and finance expenses are recognized in profit or loss, using the effective interest method. The fair value changes of derivatives comprise the fair value changes on financial assets at fair value through profit or loss, as far as these relate to financing items in the Company. These fair value changes are partially offset by the foreign currency gains and losses.

Foreign currency gains and losses are reported on a net basis as either finance income or finance expense if it concerns exchange rate results on financing items. Exchange rate results on operating items are included in Other operational costs (see note 8).

In € thousands	2019	2018
Interest income on notional cash pools	4,955	7,800
Other interest income	351	6,259
Finance income	**5,306**	**14,059**
Interest expense on loans & borrowings	(25,210)	(25,025)
Interest expense notional cash pools	(5,413)	(8,298)
Other interest expense	(1,704)	(3,610)
Interest expense leases	(9,810)	–
Foreign exchange differences	(5,603)	(5,158)
Finance expense	**(47,740)**	**(42,090)**
Fair value change of derivatives	2,914	920
Total	**(39,520)**	**(27,111)**

The finance income decreased to €5.3 million (2018: €14.1 million) due to lower balances within the notional cash pools and lower interest income from loans to associates.

The finance expense, excluding the interest expense on leases, decreased to €37.9 million due to lower balances within notional cash pools and lower other interest expenses. The interest expense on loans and borrowings of €25.2 million was in line with last year due lower average gross debt offset by higher amortization of transactions fees. The carrying amount of the transaction fees at 31 December 2019 amounts to €1.4 million (2018: €2.3 million). The interest on lease liabilities of €9.8 million is based on the Incremental Borrowing Rate, see note 15.

Arcadis utilizes notional cash pools, in which debit and credit balances both attract interest income and expense. The interest income and interest expense from cash pools in the comparative figures of 2018 was separately presented from the interest income and interest expense to specify the effect of notional cash pooling on Net finance expense.

11 Income taxes

Income taxes comprise current and deferred tax. Income tax is recognized in profit or loss, except to the extent that the tax arises from items recognized in other comprehensive income, directly in equity or from a business combination.

When the Group considers it probable that tax authorities accept a tax treatment it will be treated as such in the income tax filings. When it is not considered probable that a tax treatment is accepted, the Group uses the most likely amount or the expected value of the tax treatment.

Current tax

Current tax is the expected tax payable on taxable income for the year and adjustments to tax payable related to previous years. It is measured using the tax rates enacted or substantively enacted at the reporting date. The difference between income tax recognized in profit or loss and income tax paid in the cash flow statement differs primarily due to deferred tax recognized on temporary differences and payment of income tax occurring after the reporting date.

Deferred tax

Deferred tax is recognized using the balance sheet method and it is not recognized for:

- the initial recognition of goodwill;
- the initial recognition of assets or liabilities that affect neither accounting nor taxable profit or loss; and
- investments in subsidiaries to the extent that they will probably not reverse in the foreseeable future.

Measurement of deferred tax is based upon tax rates enacted or substantially enacted expected to be applied in the years in which the temporary differences are expected to reverse. Deferred taxes are not discounted.

A deferred tax asset is recognized for unused tax losses, tax credits and deductible temporary differences, to the extent that it is probable that future profits will be available against which they can be utilized. Deferred tax assets are reduced to the extent that it is no longer probable that the related tax benefit will be realized.

Income tax recognized in profit or loss for the period:

In € thousands	2019	2018
Current tax expense		
Current year	52,489	42,531
Adjustments for previous years	1,094	(7,535)
Total Current tax expense	**53,583**	**34,996**
Deferred tax expense		
Origination and reversal of temporary differences	(17,476)	(8,983)
Adjustments for previous years	(753)	5,447
Changes in tax rates	(328)	226
(De)recognition of deferred tax assets	4,872	(1,273)
Total Deferred tax expense	**(13,685)**	**(4,583)**
Total Income tax expense	**39,898**	**30,413**

For purpose of these financial statements, the provision for the Expected Credit Losses on shareholder loans and corporate guarantees relating to ALEN are estimated as non-deductible.

At balance sheet date the corporate tax receivable amounted to €23.2 million and the corporate tax liability amounted to €42.3 million. During 2019, the Company paid taxes for a total amount of €34.0 million (2018: €34.7 million).

Effective tax rate reconciliation

The effective corporate income tax rate (income taxes dividend by profit before income tax, mainly excluding total result from Investments and total result from investment in ALEN of €92.4 million) is 27.3% (2018: 42.7%, 2018: excluding goodwill impairment: 27.2%). For 2019 the effective tax rate differs from the corporate income tax rate in the Netherlands, primarily due to the net negative impact of non-deductible items, statutory tax rates in jurisdictions that we operating in that are different than the Dutch statutory income tax rate and prior year adjustments. The net negative impact was partially offset by changes in recognition of deferred tax assets and other.

In % and € thousands	2019 (%)	2019	2018 (%)	2018
Corporate tax rate in the Netherlands	25.0	36,482	25.0	17,820
Adjustment corporate income tax rates other countries	0.4	621	2.7	1,945
Weighted average corporate income tax rate	**25.4**	**37,103**	**27.7**	**19,765**
Non-deductible expenses/(income)	6.3	9,204	17.3	12,305
(De)recognition of deferred tax assets	(3.3)	(4,872)	1.8	1,273
Adjustments for previous years	0.2	341	(2.9)	(2,088)
Other	(1.3)	(1,878)	(1.2)	(842)
Effective tax rate [1]	**27.3**	**39,898**	**42.7**	**30,413**

[1] Taxes on income divided by Income before taxes, excluding result from Investments accounted for using the equity method and the total result from investment in ALEN (see note 16)

Deferred tax

The movement in deferred tax balances during the year 2019 was as follows:

	Net balance at 31 December 2018	Impact of IFRS 16	Net balance at 1 January 2019	Recognized in profit or loss	Recognized in Other comprehensive income and Equity	Acquisitions	Other	Exchange rate differences	Net balance at 31 December 2019	Assets	Liabilities
Intangible assets and goodwill	(47,282)	–	(47,282)	(1,587)	–	–		(1,481)	(50,350)	774	(51,124)
Property, plant & equipment	(1,888)	202	(1,686)	(163)	–	–		79	(1,770)	2,253	(4,023)
Right-of-use assets and lease liabilities	–	3,351	3,351	255	–	–		24	3,630	7,082	(3,452)
Contract assets and liabilities	(22,718)	–	(22,718)	8,285	–	–		(427)	(14,860)	4,117	(18,977)
Derivatives	–	–	–	–	(76)	–	–	–	(76)	–	(76)
Accrued expenses	22,666	–	22,666	787	–	–		442	23,895	24,329	(434)
Share-based compensation	645	–	645	614	–	–		11	1,270	1,270	–
Deferred compensation	4,497	–	4,497	(218)	–	–	(114)	96	4,261	4,261	–
Net operating losses	4,211	–	4,211	4,146	–	–	–	193	8,550	8,550	–
Provisions	4,399	–	4,399	162	551	–	95	37	5,244	5,287	(43)
Others	5,338	(3,489)	1,849	1,404	–	(396)	372	483	3,712	10,640	(6,928)
Deferred tax assets/liabilities	**(30,132)**	**64**	**(30,068)**	**13,685**	**475**	**(396)**	**353**	**(543)**	**(16,494)**	**68,563**	**(85,057)**
Offsetting	–	–	–	–	–	–	–	–	–	(45,671)	45,671
Net deferred taxes	**(30,132)**	**64**	**(30,068)**	**13,685**	**475**	**(396)**	**353**	**(543)**	**(16,494)**	**22,892**	**(39,386)**

The movement in deferred tax balances during the year 2018 was as follows:

In € thousands	Net balance at 31 December 2017	Impact of IFRS 9	Impact of IFRS 15	Net balance at 1 January 2018	Recognized in profit or loss	Recognized in Other comprehensive income and Equity	Acquisitions	Exchange rate differences	Net balance at 31 December 2018	Assets	Liabilities
Intangible assets and goodwill	(42,531)	–	–	(42,531)	(125)	–	–	(4,626)	(47,282)	848	48,130
Property, plant & equipment	(193)	–	–	(193)	(817)	–	–	(878)	(1,888)	1,739	3,627
Contract assets and liabilities	(24,063)	–	82	(23,981)	2,679	–	–	(1,416)	(22,718)	3,598	26,316
Accrued expenses	20,853	–	–	20,853	874	–	–	939	22,666	23,384	718
Derivatives	66	–	–	66	–	(66)	–	–	–	–	–
Share-based compensation	654	–	–	654	93	–	–	(102)	645	645	–
Deferred compensation	3,762	–	–	3,762	413	–	–	322	4,497	4,497	–
Net operating losses	2,365	–	–	2,365	1,694	–	737	(585)	4,211	4,211	–
Provisions	3,459	–	–	3,459	(91)	(935)	–	1,966	4,399	4,422	23
Others	2,029	548	–	2,577	(137)	–	(569)	3,467	5,338	6,599	1,261
Deferred tax assets/liabilities	**(33,599)**	**548**	**82**	**(32,969)**	**4,583**	**(1,001)**	**168**	**(913)**	**(30,132)**	**49,943**	**80,075**
Offsetting	–	–	–	–	–	–	–	–	–	(13,682)	(13,682)
Net deferred taxes	**(33,599)**	**548**	**82**	**(32,969)**	**4,583**	**(1,001)**	**168**	**(913)**	**(30,132)**	**36,261**	**66,393**

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to set of current tax against current tax liabilities and when the deferred tax assets and liabilities relate to the same taxation authority and the same taxable entity.

At 31 December 2019, the gross amount of net operating losses, amounting to €38.5 million (2018: €19.8 million), for which a deferred tax asset has been recognized expires as follows:

in € thousands	Total net operating losses	Net operating losses not recognized	Net operating losses recognized	**Deferred tax asset recognized**
2020	2,965	2,407	558	145
2021	749	–	749	142
2022	32	32	–	–
2023	749	749	–	–
2024	333	273	60	12
>2024	3,684	1,544	2,140	558
Unlimited	140,695	105,699	34,996	7,693
Total	**149,207**	**110,704**	**38,503**	**8,550**

The majority of the above-mentioned deferred tax assets relate to tax jurisdictions in which Arcadis has suffered a tax loss in the current or a preceding period. Significant judgment is required in determining whether deferred tax assets are realizable. Arcadis determines this on the basis of expected taxable profits arising from the reversal of recognized deferred tax liabilities and on the basis of budgets, cash flow forecasts and impairment models. Where utilization is not considered probable, deferred tax assets are not recognized.

At the balance sheet date, the aggregate amount of temporary differences associated with undistributed earnings of subsidiaries for which deferred tax liabilities have not been recognized was €122.7 million (2018: €111.3 million). No liability has been recognized in respect of these differences because the Group is in a position to control the timing of the reversal of the temporary differences, and it is probable that such differences will not reverse in the foreseeable future.

Impact of Brexit on tax position

There is still significant uncertainty over the period for which the existing EU laws for member states will continue to apply to the UK and which laws apply to the UK after an exit. Following the negotiations between the UK and the EU, the UK's tax status may change and this may impact the Group. At this stage the level of uncertainty is such that it is practically impossible to determine if, how and when that tax status will change.

12 Earnings per share

Basic earnings per share is calculated by dividing the profit or loss attributable to the equity holders of the Company by the weighted average number of shares outstanding during the period, excluding ordinary shares purchased by the Company and held as treasury shares (i.e. shares purchased to cover share/option plans). Diluted earnings per share is calculated based on the basic earnings per share and using the weighted average number of shares and options outstanding during the period as far as these have a potential dilutive effect, i.e. when the exercise price of these options is lower than the share price. The average number of potentially diluted shares is based on the average share price in the period on the Euronext Amsterdam Stock Exchange and the options that were in the money.

For calculating the earnings per share, the following numbers of average shares are used:

Number of shares	**2019**	2018
Average number of issued shares	89,906,557	88,411,719
Average number of treasury shares	(1,535,715)	(1,287,985)
Total average number of ordinary outstanding shares	**88,370,842**	**87,123,734**
Average number of potentially dilutive shares	707,002	–
Total average number of diluted shares	**89,077,844**	**87,123,734**

Of the outstanding options at 31 December 2019, a number of 852,812 were in the money and exercisable. Exercising options may lead to dilution. To avoid dilution as much as possible, Arcadis repurchases its own shares, which are reissued at the moment options are exercised.

The total earnings of the Group and the earnings per share are as follows:

In € thousands	2019	2018
Net income	12,302	(26,701)
Net income from operations[1]	119,781	87,591

[1] Non-GAAP performance measure, to provide transparency on the underlying performance of our business. Reference is made to the Glossary Financial & Non-Financial indicators on page 277 for the definition as used by Arcadis.

In €	2019	2018
Earnings per share/Diluted earnings per share		
Net income	0.14 / 0.14	(0.31) / (0.31)
Net income from operations[1]	1.36 / 1.34	1.01 / 1.01

[1] Non-GAAP performance measure, to provide transparency on the underlying performance of our business Reference is made to the Glossary Financial & Non-Financial indicators on page 277 for the definition as used by Arcadis

13 Intangible assets and goodwill

Goodwill
Goodwill arises from business combinations and represents the excess of the cost of the acquisition over the Company's interest in the net fair value of the identifiable assets, liabilities and contingent liabilities of the acquired company. Goodwill in respect of equity accounted investees is included in the carrying amount of the investment. Goodwill is measured at cost less accumulated impairment losses.

Other intangible assets
Other intangible assets mainly consist of customer relationships, trade names and expected profits in the backlog of acquired companies at the acquisition date. Measurement of Other intangible assets acquired in a business combination involves the use of estimates for determining the fair value at acquisition date. This mainly relates to expected profits in the backlog of the acquired companies, the customer lists at the acquisition date and the trade name value. The fair value is based on discounted cash flows expected to be received from these identifiable intangible assets. Subsequently, the assets are amortized over the estimated useful life. The amortization is recognized in profit or loss on a straight-line basis. The amortization methods and useful lives, as well as residual values, are reassessed annually.

Software
Software is measured at cost less accumulated amortization and impairment losses. Software has a finite life and is amortized on a straight-line basis over the estimated useful life. The amortization methods and useful lives, as well as residual values, are reassessed annually. Subsequent costs are recognized in the carrying amount of Software only when it increases the future economic benefits. All other expenditures are recognized in profit or loss as incurred.

Estimated useful lives
The estimated useful lives of Goodwill and Intangible assets varies according to their respective categories, as shown below.

Category	Years
Goodwill	Not amortized
Software	0.5 – 10
Other intangible assets	3 – 10
Intangibles under development	Not amortized (yet)

In € thousands	Goodwill	Other intangible assets	Software	Intangibles under development	Total
Cost	930,014	281,797	79,997	28,309	1,320,117
Accumulated amortization	–	(189,938)	(55,918)	–	(245,856)
At 1 January 2018	**930,014**	**91,859**	**24,079**	**28,309**	**1,074,262**
Additions	–	–	4,925	20,903	25,828
Acquisitions of subsidiaries	9,103	1,443	2,290	–	12,836
Disposals	–	–	(385)	(85)	(470)
Amortization charges	–	(22,721)	(9,126)	–	(31,847)
Impairment charges	(40,386)	–	–	–	(40,386)
Reclassifications	–	–	2,193	(3,988)	(1,795)
Exchange rate differences	16,017	(249)	50	0	15,818
Movement 2018	**(15,266)**	**(21,527)**	**(53)**	**16,830**	**(20,016)**
Cost	914,748	268,269	79,517	45,139	1,307,672
Accumulated amortization	–	(197,937)	(55,490)	–	(253,427)
At 31 December 2018	**914,748**	**70,332**	**24,027**	**45,139**	**1,054,246**
Additions	–	311	2,497	10,995	13,803
Acquisitions of subsidiaries	695	39	1,859	–	2,593
Disposals	–	–	(489)	(513)	(1,002)
Amortization charges	–	(16,609)	(12,922)	–	(29,531)
Impairment charges	–	–	–	–	–
Reclassifications	–	–	28,581	(24,575)	4,006
Exchange rate differences	33,025	2,293	360	(1)	35,677
Movement 2019	**33,721**	**(13,966)**	**19,886**	**(14,094)**	**25,547**
Cost	948,469	270,911	112,325	31,045	1,362,749
Accumulated amortization	–	(214,546)	(68,412)	–	(282,957)
At 31 December 2019	**948,469**	**56,366**	**43,913**	**31,045**	**1,079,793**

The amortization charge for Intangible assets is recognized in the following line items in the Consolidated income statement:

In € thousands	2019	2018
Amortization Other intangible assets	16,609	22,721
Depreciation and amortization	12,922	9,126

Goodwill

For annual impairment testing, goodwill is allocated to Cash-Generating Units (CGUs). The CGU is the lowest level within the Group at which Goodwill is monitored for internal management purposes.

Goodwill capitalized was assigned to our CGUs as follows:

In € thousands	2019	2018
North America	261,881	255,997
Latin America	–	–
Continental Europe	77,203	76,086
United Kingdom	245,032	230,359
Middle East	62,779	59,563
Asia	88,741	86,191
Australia Pacific	58,232	54,938
CallisonRTKL	154,601	151,614
Total Goodwill	**948,469**	**914,748**

Impairment testing for cash-generating units containing goodwill

The recoverable amount of Goodwill for impairment testing purposes is based on a value in use calculation, which is complex and judgmental. The calculations use cash flow projections based on historical performance, our plan for 2020 as approved by the Executive Board and projections for 2021 - 2024, after which a terminal value was used at an average rate of 2.3% (2018: 0.6%).

The value in use calculation is adjusted in 2019 to incorporate the impact of IFRS 16 on the Operating EBITA margins, the carrying amount includes the right-of-use assets and the weighted average cost of capital is adjusted to include the cost of lease liabilities.

The key assumptions used in the projections are:

- (Net) revenue growth: based on experience and market analysis;
- Operating EBITA margin development: based on historical performance (incl. the impact of IFRS16), plan 2020 and management's long-term projections; and
- Weighted average cost of capital (WACC): based on the market participants view on rates of return demanded for investments equivalent to those in the Company. The components of the WACC include from 2019 the Cost of Equity, Cost of Debt and Cost of Lease Liabilities.

The business plans include management's estimate about the level and timing of the execution of (the improvement of) operating performance and margins. In line with previous years, for impairment testing purposes a more prudent outlook and phasing has been considered for the development of revenues and margins.

The applied assumptions in the test of 2019 are included in the below table.

In %	Average (net) revenue growth	Operating EBITA margin	Pre-tax discount rate	Terminal growth rate
North America	2.4%	9.4% - 9.9%	9.8%	2.3%
Latin America	7.0%	4.6% - 6.3%	14.6%	3.3%
Continental Europe	0.7%	8.0% - 8.5%	9.0%	1.0%
United Kingdom	3.2%	8.6% - 8.8%	9.4%	2.0%
Middle East	6.6%	7.7% - 8.1%	12.1%	2.1%
Asia	1.9%	8.9%	10.6%	2.8%
Australia Pacific	3.6%	12.0% - 13.3%	10.2%	2.5%
CallisonRTKL	1.1%	9.0% - 10.3%	10.0%	2.4%

The higher Operating EBITA margins are positively impacted compared to prior year by IFRS 16, as the depreciation is lower than the lease costs under IAS 17. The increase in WACCs is driven by a higher unlevered beta, partly offset by the impact of adding the Cost of Lease liabilities in the calculation. A change in methodology in 2019 resulted in higher terminal growth rates, which were offset by a higher equity market risk premium in the WACC calculation.

The key assumptions included in the 2018 test for each CGU are disclosed below.

In %	Average (net) revenue growth	Operating EBITA margin	Pre-tax discount rate	Terminal growth rate
North America	2.2%	7.8%-8.0%	8.9%	0.6%
Latin America	7.4%	3.9%-4.1%	13.3%	1.8%
Continental Europe	1.1%	7.5%-7.9%	8.9%	0.1%
United Kingdom	2.1%	8.3%-8.5%	8.4%	0.3%
Middle East	1.3%	6.2%-6.5%	8.4%	1.1%
Asia	1.4%	7.3%-9.3%	9.7%	1.1%
Australia Pacific	3.2%	10.0%-11.4%	9.7%	0.9%
CallisonRTKL	0.7%	8.7%	9.4%	0.7%

The weighted average pre-tax discount rate was 9.9% (2018: 9.0%) and has been determined by iterative computation so that the value in use determined using pre-tax cash flows and a pre-tax discount rate equals the value in use determined using post-tax cash flows and a post-tax discount rate. The weighted average post-tax discount rate used is 7.8% (2018: 6.9%), which includes country specific premiums when applicable.

Observations from impairment testing

The outcome of the Goodwill impairment test calculation at 31 December 2019 revealed that the recoverable amount of the Company slightly increased compared to prior year. The recoverable amount for all CGUs exceeded the carrying amount and did not result in impairments recognized (2018: €40.4 million impairment charge, for Middle East and Latin America).

The impairment test and sensitivity analysis around the key assumptions have indicated sufficient headroom for all CGUs, except for Middle East and CallisonRTKL, and as such a reasonably possible change in any of the assumptions would not cause the recoverable amount to be less than the carrying value.

The headroom for Middle East and CallisonRTKL is limited, which is for Middle East also explained by the impairment taken in 2018. In case the recovery of these CGUs is further delayed, goodwill relating to these CGUs may be impaired. Management is, however, positive about the medium and long-term recovery of these CGUs and has concluded that an impairment as at 31 December 2019 is not necessary based on both quantitative and qualitative factors. The strategic plan for Middle East is executed in 2019 in line with the conclusions made last year. CallisonRTKL is implementing a new operating model to improve profitability.

An impairment of the goodwill for Middle East will occur if the terminal growth rate drops below 1.6%, the Operating EBITA margin in the terminal drops below 7.6% or when the post-tax discount rate increases to 8.7%.

An impairment of the goodwill for CallisonRTKL will occur if the terminal growth rate drops below 1.9%, the Operating EBITA margin in the terminal drops below 8.4% or when the post-tax discount rate increases to 8.5%.

The expected future cash flows used in the goodwill impairment analysis are based on management's estimates. Events in our end-markets as well as the financial markets and the overall economy may have an adverse impact on the estimated future cash flows of the Group.

Other intangible assets

The carrying amounts recognized in the Consolidated balance sheet for Other intangible assets are as follows:

In € thousands	2019	2018
Customer Relationships	51,829	65,474
Trade names	3,648	3,908
Backlog	407	146
Other	481	804
Total Other intangible assets	**56,365**	**70,332**

In 2018 and 2019 no changes were made in the useful life, amortization methods or the residual values of the Other intangible assets.

Software and Intangibles under development

Investments in Software mainly relate to the implementation of harmonized systems, which is part of the implementation of the Arcadis Way. An amount of €13.5 million was invested in Software and Intangibles under development in 2019. The Intangibles under development of €31.0 million are related to the development of software not yet in use (2018: €45.1 million) and are not yet amortized.

14 Property, plant & equipment

Property, plant & equipment is measured at cost less accumulated depreciation and impairment losses. Costs include expenditures that are directly attributable to the acquisition of the assets.

Subsequent costs are recognized in the carrying amount of Property, plant & equipment if it is probable that future economic benefits will be obtained. The costs of day-to-day servicing of property, plant & equipment are expensed as incurred.

Depreciation, based on the cost of an asset less its residual value, is recognized in profit or loss on a straight-line basis over the estimated useful life. The estimated useful life of Property, plant & equipment vary according to their respective categories, as shown in the table hereafter.

Category	Years
Land	Not depreciated
Buildings	30 - 40
Furnitures and fixtures	5 - 10
(IT) equipment	5 - 10
Property, plant and equipment under development	Not depreciated (yet)

Depreciation methods and useful life, as well as residual values, are reassessed annually. When parts of an item of Property, plant & equipment have different useful life, they are accounted for as separate items (major components) of Property, plant & equipment.

Gains on the sale of an item of Property, plant & equipment are determined by comparing the proceeds from disposal with the carrying amount of Property, plant & equipment and are recognized within Other income in the Consolidated income statement. Losses on the sale of an item of Property, plant & equipment are recognized within Other operational costs in the Consolidated income statement.

The determination of impairment of Property, plant & equipment involves the use of estimates. The recoverable amount is determined by discounting the estimated future cash flows to present value using a discount rate that reflects the current market assessments of the time value of money and the risks specific to the asset. The identification of impairment indicators, as well as the estimation of future cash flows, discount rates and the determination of the fair value for the assets requires management to make significant judgements.

In 2018 and 2019 no changes were made in the useful lives, depreciation methods and the residual values of Property, plant & equipment elements that materially impacted the Company. No properties were registered as security for bank loans.

In € thousands	Land and Buildings	Furniture and fixtures	IT equipment	Property, Plant and Equipment under development	Total
Cost	7,042	135,403	98,749	2,004	243,198
Accumulated depreciation	(3,769)	(74,580)	(72,205)	–	(150,555)
At 1 January 2018	**3,273**	**60,823**	**26,544**	**2,004**	**92,643**
Additions	1,899	21,077	13,660	6,300	42,936
Acquisitions of subsidiaries	–	–	1,011	44	1,055
Disposals	(401)	(2,643)	(914)	(58)	(4,016)
Reclassifications	954	2,937	(555)	(587)	2,749
Depreciation charges	(1,602)	(17,430)	(14,441)	–	(33,474)
Exchange rate differences	12	1,240	198	234	1,684
Movement 2018	**862**	**5,181**	**(1,041)**	**5,933**	**10,935**
Cost	6,777	136,834	91,511	7,937	243,059
Accumulated depreciation	(2,642)	(70,830)	(66,009)	–	(139,481)
At 31 December 2018	**4,135**	**66,004**	**25,502**	**7,937**	**103,578**
Impact IFRS 16	(1,050)	(127)	(420)	–	(1,597)
At 1 January 2019	3,085	65,877	25,082	7,937	101,981
Additions	90	11,761	10,136	12,982	34,969
Acquisitions of subsidiaries	–	–	–	–	–
Disposals	(600)	(417)	(333)	(452)	(1,802)
Reclassifications	21,428	(13,581)	758	(12,569)	(3,964)
Depreciation charges	(4,987)	(14,488)	(13,135)	–	(32,610)
Exchange rate differences	67	1,309	579	203	2,160
Movement 2019	**15,999**	**(15,416)**	**(1,994)**	**164**	**(1,246)**
Cost	50,940	103,065	93,094	8,101	255,201
Accumulated depreciation	(31,857)	(52,605)	(70,004)	–	(154,466)
At 31 December 2019	**19,083**	**50,460**	**23,090**	**8,101**	**100,735**

A reclassification of €4 million has been made from Property, plant & equipment to Software.

15 Right-of-use assets and lease liabilities

A contract is, or contains, a lease if it conveys the right to control the use of an identified asset for a period of time in exchange for consideration. Control is conveyed when the Group has both the right to direct the identified asset's use and to obtain substantially all the economic benefits from that use.

Contracts may contain both lease and non-lease components. The Group allocates the consideration to these components based on its relative stand-alone prices. Non-lease components are not included in the right-of-use asset and lease liability but accounted for separately.

Right-of-use assets
At commencement of a lease, the Group measures right-of-use assets initially at cost, and subsequently at cost less any accumulated depreciation and impairment losses and adjusted for certain remeasurements of the lease liability.

The cost of the right-of-use assets comprise the following:
- Amount of the initial measurement of the lease liability;
- Any lease payments made at or before the commencement date less any lease incentives received at or after the commencement date;
- Any initial direct costs; and
- Restoration costs i.e estimate of the costs to be incurred for dismantling, removal and/ or restoration to the conditions required by the terms of the lease.

See note 28 for the accounting policy on provisions for right-of-use assets (restoration provisions).

Right-of-use assets are generally depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

Lease liabilities
Lease liabilities are initially measured at the present value of the future lease payments that are not paid at the commencement date discounted using an implicit rate of interest, unless this cannot readily be determined, in which case an incremental borrowing rate is used. The lease liability is subsequently increased by the interest cost on the lease liability and decreased by lease payments made. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, a change in the estimate or the amount expected to be payable under a residual value guarantee, or as appropriate, changes in the assessment of whether a purchase or extension option is reasonably certain to be exercised or a termination option is reasonably certain not to be exercised.

Judgment is applied to determine the lease term for some lease contracts in which it is a lessee that include renewal and termination options. The assessment of whether the Group is reasonably certain to exercise such option impacts the lease term, which significantly affects the amount of lease liabilities and right-of-use assets recognized. At reporting date all facts and circumstances are considered that create an economic incentive in determining whether it is reasonably certain that an extension or termination option will be recognized. Changes in the estimate are recognized prospectively.

Incremental Borrowing Rate
The Incremental Borrowing Rate (IBR) is determined based on a build-up approach, whereby each category of leases has an IBR based on the country (and currency) of the lessee and the lease term.

Lease incentives
Lease incentives are deducted from the right of use assets if received before the commencement date of the lease; they are deducted from the lease liability if received at or after the commencement date of the lease.

Amounts received for leasehold improvements are depreciated over a period not longer than the lease term.

Short-term and low value leases
Payments associated with short-term and/or low value leases are recognized on a straight-line basis as an expense in profit or loss.

As a lessor
The Group sub-leases some of its buildings, although not significant. The head leases are presented in the right-of-use assets and the sub-lease contracts are treated as operating leases under IFRS 16. Income from sub-leases is presented in Other income, see note 7.

This note provides information for leases where the Group is a lessee.

Leasing activities

The Group's lease portfolio consists of over 2,800 active lease contracts at 31 December 2019, mainly related to real-estate lease contracts and vehicles. Approximately 91% of the value of the lease liability is from land and buildings.

Almost all lease contracts of the Group qualified as operational leases under IAS 17.

Lease terms
Lease terms are generally negotiated locally, with support from the Global Workplace director and/or regional real estate or procurement teams where needed. Contracts are negotiated on an individual basis and contain a wide range of terms and conditions, such as early termination clauses and renewal rights. They may contain both lease and non-lease components, whereby the Group has elected not to include the service element in leases (e.g. fuel, insurance) in the right-of-use asset and lease liability.

Termination clauses and renewal rights are included in several real estate leases across the Group. They are used to maximize operational flexibility in terms of managing the assets used in the Group's operations. In determining the lease term, management considers all facts and circumstances that create an economic incentive to exercise a renewal right, or not exercise a termination clause. Both options are only included in the lease term if the lease is reasonably certain to be extended or not terminated.

Factors that are considered in terminating or renewing leases include amongst others:
- Significant penalties involved;
- Leasehold improvements made with a significant remaining value; and
- Costs and business disruption required to replace a leased asset.

An amount of €38 million extension and/or renewal options are included in the Group's lease liability at 31 December 2019 reflecting that the Group could not replace leased assets without significant cost or business disruption.

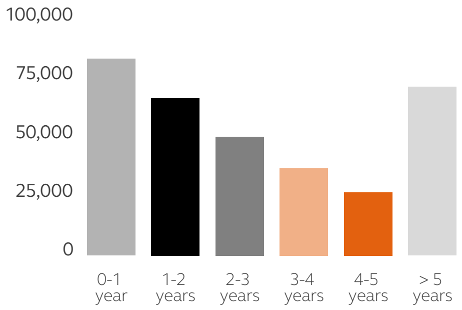
As at 31 December 2019, potential future cash outflows of €142.8 million (undiscounted) have not been included in the lease liability because it is not reasonably certain that the leases will be extended (or not terminated). During 2019 the financial impact of the reassessment of reasonable certainty led to an increase in recognized lease liabilities and right-of-use assets of €1.1 million.

The Group does not have leases with variable lease payments and does not provide residual value guarantees.

Maturity profile

The undiscounted value of lease commitments as at 31 December 2019 amounts to €332 million and the maturity is as shown in the graph below.

In € thousands



The undiscounted maturity of all sub-leasing contracts as at 31 December 2019 amounts to €1 million and is not material for the Group.

Amounts recognized in the Consolidated Balance sheet

Right-of-use assets

The following right-of-use assets are recognized in the balance sheet:

	Leased land and buildings	Leased furnitures and fixtures	Leased (IT) equipment	Leased vehicles	Total
Balance at 1 January 2019	**248,655**	**1,209**	**2,276**	**23,333**	**275,473**
Additions	41,116	178	7,189	10,155	58,638
Depreciation charges	(58,687)	(385)	(1,553)	(10,484)	(71,109)
Acquisitions/ disposals	(283)	(1)	(30)	(5)	(319)
Exchange rate differences	3,791	23	66	205	4,085
Balance at 31 December 2019	**234,592**	**1,024**	**7,948**	**23,204**	**266,768**

Lease liabilities

The following lease liabilities are recognized in the balance sheet:

In € thousands	Lease liabilities
Balance at 1 January 2019	**289,989**
Additions	61,210
Payments	(74,808)
Acquisitions/ disposals	–
Interest	9,810
Exchange rate differences	4,921
Balance at 31 December 2019	**291,122**
Current	75,661
Non-current	215,461
Total	**291,122**

Lease liabilities decrease due to payments and increase due to interest expense, but are also impacted by lease modifications (e.g. renewals, early termination) and new lease contracts. Renewal options are only included in the lease liability when it is reasonably certain that the Group will exercise its right; new lease contracts are taken into account at commencement date. Therefore, the lease liabilities may vary over time even if the number of leased assets does not change.

Amounts recognized in the Consolidated Income statement

In € thousands	2019
Depreciation	71,109
Interest expense (included in Net finance expense)	9,810
Other operational costs for short-term leases	5,122
Other operational costs for low-value leases	212
Other operational costs for loss on derecognition lease	12
Other income for gain on derecognition lease	(108)
Other income from sub-leasing	328
Total	**86,485**

In limited cases the Group acts as a lessor by sub-leasing (part of) a building. Such lease income, amounting to €0.3 million in 2019, is recognized in Other income (see note 7).

Gains or losses on the derecognition of leases, as included in profit or loss of 2019, amounted to €0.1 million gain. No impairments have been recognized.

Amounts recognized in the Consolidated Cash flow statement

The total lease rental payments relating to lease liabilities of €75 million are recognized as cash outflow from financing activities, whereby previously they have impacted the cashflow from operating activities. See page 182 for the full Consolidated cash flow statement.

16 Investments accounted for using the equity method

Joint arrangements

Investments in joint arrangements are classified as either joint ventures or joint operations. The classification depends on the contractual rights and obligations, rather than the legal structure of the joint arrangement.

Joint ventures are joint arrangements in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities. Joint ventures are accounted for using the equity method, where interests in joint ventures are initially recognized at cost, including transaction cost. Subsequently the Group's share of the profit or loss and movements in other comprehensive income are included in the Consolidated financial statements, whereby the calculation is based on the Group's accounting policies. When the Group's share of losses in a joint venture equals or exceeds its interest in a joint venture, the Group does not recognize further losses.

Joint operations are joint arrangements whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. Joint operations are accounted for the Group's direct rights to the assets, liabilities, revenues and expenses of the joint operations and its share of any jointly held or incurred assets, liabilities, revenues and expenses. These are combined on a line-by-line basis with corresponding items in the Group's financial statements.

Associates

Associates are those entities in which the Group has significant influence, but no control over financial and operating policies. Significant influence is presumed to exist when the Group holds more than 20% of the voting power of the entity. Associates are accounted for using the equity method from the date that significant influence commences until the date that significant influence ceases. Initially, investments in associates are recognized at cost, including transaction cost. Goodwill identified on the acquisition of the associate is included in the carrying amount of the investment.

The Consolidated financial statements include the Group's share of the net profit or loss and other comprehensive income of the associates, after adjustments to align the accounting policies with those of the Group. The application of the equity method is applied to loans that form part of a Net investment. Loans to associates are carried at amortized cost less any expected credit losses. The Group applies the Expected Credit Loss model to loans that form part of the Net investment, before recognizing its share of losses from application of the equity method on these loans.

Investments in associates and joint ventures

The nature of business of the Group's associates and joint ventures is similar. They provide comprehensive knowledge-based consultancy, design, engineering and management services in the area of infrastructure, water, environment and buildings. The most significant investments in associates and joint ventures are listed below together with the Group's balance sheet impact and share in profit of loss.

Name of entity	Place of business/ country of incorporation	Associate/ joint venture	% of ownership interest 2019	% of ownership interest 2018
Arcadis Logos Energia S.A.	Brazil	Associate	49.99%	49.99%
Geodynamique et Structure S.A.	France	Associate	48.68%	48.68%
Asset Rail B.V.	Netherlands	Associate	40.00%	40.00%
CARE/RTKL Ltd	Saudi Arabia	Joint venture	45.00%	45.00%
Stroomdal I	Netherlands	Joint venture	33.30%	33.30%
TECHT Ltd	United Kingdom	Joint venture	50.00%	50.00%

The movement in associates and joint ventures in the Consolidated Balance sheet is as follows:

In € thousands	Associates 2019	Associates 2018	Joint ventures 2019	Joint ventures 2018	Total 2019	Total 2018
Balance at 31 December	**4,689**	**19,827**	**3,067**	**2,980**	**7,756**	**22,807**
Impact IFRS 9	–	(885)	–	–	–	(885)
Balance at 1 January	**4,689**	**18,942**	**3,067**	**2,980**	**7,756**	**21,922**
Share in result by Arcadis	1,220	(12,766)	31	74	1,251	(12,692)
Acquisitions		–		–	–	–
Investments	17,483	31,964	22	11	17,505	31,975
Divestments	–	(2,050)	(3)	–	(3)	(2,050)
Received dividends	(540)	–	(991)	–	(1,531)	–
Reclassifications	–	–	–	–	–	–
Expected Credit loss	(16,234)	(30,932)	–	–	(16,234)	(30,932)
Exchange rate differences	(1,269)	(469)	54	2	(1,215)	(467)
Balance at 31 December	**5,349**	**4,689**	**2,180**	**3,067**	**7,529**	**7,756**

The balance sheet positions in associates includes loans to Arcadis Logos Energia S.A. (ALEN, net amount of nil at 31 December 2019), which are considered part of the Net investment in ALEN. There are no other loans to associates or joint ventures outstanding as at 31 December 2019.

The joint ventures have share capital consisting solely of ordinary shares, which are held indirectly by the Group, and are non-listed shares. As such there is no available quoted market price for the shares. The Group has no contingent liabilities relating to interests in joint ventures at 31 December 2019 (2018: nil).

Material associates

Arcadis Logos Energia S.A. (ALEN) is a material associate, which holds investments in several energy assets in Brazil. For more details on the activities of ALEN see page 135 of this report.

The share capital of ALEN solely consists of ordinary shares, which are not listed and as such there is no quoted market price available for the shares. The country of incorporation or registration, which is also the principal place of the business, is Brazil.

Arcadis has no control over ALEN, as the Group does not direct the relevant activities. Arcadis does not have the majority of existing voting rights, potential voting rights are at 31 December 2019 not substantive and also special relationships do not result in power. The funding provided to ALEN was to ensure that the development of the energy assets and the subsequent sale could be completed, not to exercise power over ALEN. As such ALEN was not consolidated under the application of IFRS 10.

Net exposure

The Group's net exposure relating to ALEN as at 31 December 2019 relates to its:

- Equity investment;
- Debt investment via shareholder loans;
- Corporate guarantees provided to lenders of ALEN; and
- (Constructive) obligations related to an orderly wind-down of ALEN.

The net (balance sheet) positions of Arcadis relating to ALEN are summarized as follows:

In € thousands	Note	31 Dec 2019	31 Dec 2018
Equity investment		–	–
Shareholder loans		–	–
Net investment in ALEN		**–**	**–**
Provision for Expected Credit Loss on corporate guarantees	30	(92,773)	(27,834)
Current portion of provisions	28	(10,000)	–
On-balance sheet position		**(102,773)**	**(27,834)**
Outstanding corporate guarantees		92,773	87,137
Net position		**(10,000)**	**59,303**

The Consolidated financial statements include the Group's share of the net profit or loss and other comprehensive income of the associates, after adjustments to align the accounting policies with those of the Group. The application of the equity method is applied to loans that form part of a Net investment. Loans to associates are carried at amortized cost less any expected credit losses. The Group applies the Expected Credit Loss model to loans that form part of the Net investment, before recognizing its share of losses from application of the equity method on these loans.

On 17 December 2019 the Company announced that it decided to stop investing in ALEN. The re-assessment of the business case for the ALEN associate led to a full provision of the exposure on 31 December 2019. See paragraphs 'Net investment', 'Guarantees' and 'Developments in 2019' below for further details.

Net investment

Arcadis' equity investment includes 49.99% of share capital, representing 49.99% of voting rights. The other 50.01% of share capital and voting rights are held by Logos Holding S.A. On the level of shareholders decisions are taken by a simple majority of shares, except for certain decisions (e.g. sale of substantial part of the business) whereby 2/3 majority of shares are required.

The equity investment in and shareholder loans to ALEN are part of the Net investment, to which the equity method is applied. The movement in the Net investment in ALEN was as follows:

In € thousands	Equity	Shareholder loans	Net investment
Balance at 1 January 2019	–	–	–
Share in result by Arcadis	–	–	–
New loans and accrued interest	–	17,483	17,483
Redemptions	–	–	–
Expected credit loss	–	(16,234)	(16,234)
Exchange rate differences	–	(1,249)	(1,249)
Balance at 31 December 2019	**–**	**–**	**–**

At 31 December 2019 the gross amount of shareholder loans is €71.3 million (2018: €55.1 million). The interest on the shareholder loans is nil; the maturity date of the loans is one year after issuance.

ALEN balance sheet and income statement

The tables below summarize the balance sheet and income statement of ALEN, reflecting the amounts presented in the financial statements of the associate on a 100%-basis, where applicable adjusted for differences in accounting policies between the Group and the associate.

	ALEN	
In € thousands	2019	2018
Current assets	956	2,670
Non-current assets	64,747	60,655
Total assets	**65,703**	**63,325**
Current liabilities	90,056	106,414
Non-current liabilities	77,305	15,231
Total liabilities	**167,361**	**121,645**
Net assets	**(101,658)**	**(58,320)**

The Current liabilities at 31 December 2019 include €70.5 million (2018: €49.8 million) of loans from external lenders, which largely mature at 30 June 2020. The non-current liabilities include €71.3 million of shareholder loans from Arcadis to ALEN, which are in the accounts of Arcadis itself fully impaired as at 31 December 2019 (2018: €55.1 million gross, nil net).

	ALEN	
In € thousands	2019	2018
Revenues	407	653
Post-tax profit or loss	(45,255)	(34,128)

Guarantees

The shareholders in ALEN, Logos Holding S.A. and Arcadis, provided corporate guarantees to the lenders of ALEN for loans to ALEN and its affiliates. The total amount of guarantees provided by Arcadis at 31 December 2019 was €93 million (2018: €87 million), of which €74 million was related to bank loans provided to ALEN (2018: €63 million) and €18 million to bank loans provided to affiliates of ALEN (2018: €24 million).

Logos Holding S.A. has provided a counter guarantee to Arcadis, secured by a right of pledge of Logos Holding's shares and voting rights in ALEN. Arcadis is able to exercise this right when Arcadis is requested to pay out under the guarantees provided to the lenders of ALEN and Logos Holding S.A. cannot pay Arcadis its share. This was however neither applicable nor expected as at 31 December 2019 as the lenders of ALEN did not make use of the guarantees received.

Due to the provided corporate guarantees Arcadis is exposed to the risk of ALEN running into financial difficulty that might trigger a default on debt that would, in turn, result in the relevant lenders claiming repayment from Arcadis for the full amount of the guarantees provided. This risk increased as the Company re-assessed the business case and decided in December 2019 to stop investing further in ALEN. ALEN will continue with its operations and the Company supports them in their attempt to sell the assets in due course but given the uncertainties an expected credit loss for the full amount of guarantees at 31 December 2019 has been recognized.

The next table summarizes the movements in the corporate guarantees provided by Arcadis and the related expected credit loss provision.

In € millions	Note	2019	2018
Corporate guarantees at 1 January		**87**	**84**
New guarantees		13	19
Repayments		(6)	(7)
Exchange rate differences		(1)	(9)
Corporate guarantees at 31 December		**93**	**87**
Provision for ECL on corporate guarantees at 1 January		**(28)**	**(5)**
Additions		(65)	(23)
Amounts used			–
Release of unused amounts		–	–
Exchange rate differences		–	–
Provision for ECL on corporate guarantees at 31 December	30	**(93)**	**(28)**
Total exposure at 31 December		**–**	**59**

The new guarantees in 2019 related primarily to new loans for the investments in the plant of one of ALEN's affiliates and accrued interest.

Developments in 2019
Progress continued to be made in 2019 by ALEN in the completion of the energy assets and the divestment process, see also page 135 of this report. However, on 17 December 2019 the Company announced that it stops further investments in ALEN.

The loss for the full year has been recognized in the Consolidated income statement on the following accounts:

In € thousands	2019	2018
Share in result by Arcadis	–	(13,285)
Result from investments accounted for using the equity method	**–**	**(13,285)**
Impairment on shareholder loans	(17,483)	(31,817)
Remeasurement Expected Credit Loss on shareholder loans and corporate guarantees	(64,948)	(22,108)
Expected Credit loss on shareholder loans and corporate guarantees	**(82,431)**	**(53,925)**
Other operational costs	(10,000)	–
Total result from investment in ALEN	**(92,431)**	**(67,210)**

Of the annual impact of €92 million, an amount of €85 million was recognized in the last quarter of the year. This included €10 million for costs to cover for (constructive) obligations (environmental liabilities) relating to an orderly wind-down of ALEN. It is considered more likely than not that there will be a cash outflow for Arcadis, and therefore the best estimate of the amount has been recognized as Other provision (see note 28).

17 Other investments

Other investments relate to interests in companies over which the Group has no significant influence nor control. Other investments are accounted for at fair value through profit or loss.

In € thousands	2019	2018
Balance at 1 January	**637**	**607**
Investments	1,072	1,047
Divestments	(130)	–
Fair value changes	704	(1,017)
Exchange rate differences	(3)	–
Balance at 31 December	**2,280**	**637**

Arcadis has made contributions to an investment entity as part of the Arcadis City of 2030 Accelerator program, powered by Techstars. To date, investments in two cohorts of ten companies each have been made for US$ 2.4 million in total (€2.1 million); primarily with the intention to experience and witness firsthand transformation and innovation in practice and to explore new business models and technologies that can help Arcadis accelerate its digital transformation.

Returns from the investments are shared between Arcadis and Techstars in accordance with the operating agreement with the investment entity. Arcadis is not financially liable beyond its initial contribution to the investment entity and any distributions received in the event of a recall.

The investments made by Arcadis are accounted for at fair value through profit or loss, whereby a Level 3 valuation is used to determine the fair value. Due to the inherent uncertainty of valuation of privately held companies, the fair value may however differ from what would have been used had a readily available market existed for all companies.

As at 31 December 2019 the value on the balance sheet of Arcadis amounts to €1.8 million. In 2019, a fair value profit of €0.7 million was recorded in Other income (2018: €1.0 million loss), see note 7.

18 Derivatives

General
The Company uses derivatives in order to hedge the exposure to foreign exchange risks and interest rate risks arising from operational, financing and investment activities. Derivatives include forward foreign exchange rate contracts, foreign exchange swaps and interest rate derivatives. The Company does not hold or issue derivatives for trading purposes. Hedge accounting is applied for cash flow hedges related to forecasted transactions and fair value hedges.

Measurement and recognition
All derivative financial instruments are initially recognized at fair value. Attributable transaction costs are recognized in profit or loss when incurred. Subsequently, derivatives are measured at fair value derived from market prices of the instruments or valuation techniques, with the fair value changes recognized in profit or loss, unless hedge accounting is applied. A gain or loss on remeasurement to the fair value of the interest rate derivatives is recognized in profit or loss under fair value change of derivatives. The fair value changes of forward foreign exchange contracts are recognized in operating income. The carrying values of the derivatives are recognized in the balance sheet as derivatives, which can be classified as current or non-current assets or liabilities, depending on the maturity of the contracts.

Hedge accounting

For a cash flow hedge of a forecasted transaction, the transaction should be highly probable to occur and should present an exposure to variations in cash flows that could ultimately affect reported profit or loss. In specific cases hedge accounting is applied for cash flow hedges. In that case, the effective part of the fair value changes of those derivatives is deferred in Other comprehensive income and presented in the hedging reserve in Equity. The hedging reserve includes the cash flow hedge reserve and the costs of hedging. Changes in the fair value of the currency basis since the inception of the hedging relationship will be deferred into a separate component of Other comprehensive income.

The amount recognized in Other comprehensive income as a cash flow hedge reserve is released to the related lines in profit or loss at the same time as the hedged cash flows affect profit or loss. Any ineffective portion of changes in the fair value of the derivatives is included in profit or loss immediately.

At inception of the hedge, the relationship between the hedging instrument and the hedged item is documented – including the risk management objectives, strategy in undertaking the hedge transaction, the hedged risk – and, in case of hedge accounting, the methods that will be used to assess the effectiveness of the hedge. Both at the hedge inception and at each reporting date, the Company makes an assessment whether the derivatives used are highly effective in offsetting changes in fair values or cash flows of hedged items.

The economic relationship between the hedging instrument and the hedged item is, amongst others, determined based upon matching notional amounts, a minimal fair value of the hedging instrument at inception, matching the underlying hedged risk (interest benchmark rate or currency pair), matching repricing and payment dates and an assessment of the likelihood of default of the hedging counterparty. Sources of ineffectiveness can, amongst others, be driven by movements in the credit spread of Arcadis and the relevant hedging counterparty, mismatch of payment flow frequencies, mismatch of interest conditions such as interest floors and possible changes to the critical terms of the economic relationship.

When a derivative cease to be highly effective or in case of early redemption of the hedged item, hedge accounting is discontinued prospectively. When a cash flow hedge relationship is terminated, the fair value changes deferred in the hedging reserve in equity are released to profit or loss under the fair value change of derivatives only when the hedged transaction is no longer expected to occur. Otherwise these will be released to profit or loss at the same time as the hedged item.

Fair value

A fair value is the price that would be received to sell an asset or would be paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value of derivatives is determined by using valuation models that incorporate various inputs, such as forward interest rate curves and the credit worthiness of counterparties. The methods and assumptions used to estimate the fair value are consistent with prior year.

The fair value of derivatives held by the Company as at the balance sheet date is presented in the table below:

	Assets		Liabilities		Total	
In € thousands	2019	2018	2019	2018	2019	2018
Interest rate derivatives:						
Current	–	–	–	–	–	–
Non-current	1,240	1,637	822	1,115	418	522
Foreign exchange derivatives:						
Current	6,252	10,058	4,657	9,614	1,595	444
Non-current	–	–	–	–	–	–
Total	**7,492**	**11,695**	**5,479**	**10,729**	**2,013**	**966**

See note 29 for the Group Treasury policy and the valuation techniques used for the derivatives. Group Treasury is consulted by entities for alignment of hedge accounting with the Group Treasury policy guidelines and assisted with documentation of the hedge relationship, derivatives valuations and effectiveness testing.

During 2019, the Company held for a notional amount of €81.5 million (2018: €81.5 million) floating to fixed interest rate swaps to hedge the interest rate risk of €81.5 million of long-term variable loans outstanding and applied hedge accounting to €36.0 million of these interest rate derivatives.

At 31 December 2019 the € 36.0 million hedge is no longer qualified for hedge accounting. As a result, the hedging reserve will be amortized over the remaining life of the hedge.

The market value of these derivatives at 31 December 2019 was €1.0 million negative (2018: €1.1 million negative). In addition, the Company has €40.0 million of fixed to floating cross currency swaps to manage the currency and interest rate risk of a subsidiary. The market value of these derivatives at 31 December 2019 was €1.1 million positive (2018: €1.6 million positive) and hedge accounting is applied on these derivatives.

Effects of hedge accounting on the financial position and performance

In € thousands	2019	2018
Interest rate swaps		
Notional amount	36,000	36,000
Maturity date	2022	2022
Hedge ratio	1:1	1:1
Change in fair value of oustanding hedging instruments	(21)	(1,031)
Change in value of hedged item used to determine hedge effectiveness	(111)	693
Ineffectiveness	90	338
Cross currency interest rate swaps		
Notional amount	40,000	40,000
Maturity date	2023	2023
Hedge ratio	1:1	1:1
Change in fair value of oustanding hedging instruments	(429)	(2,443)
Change in value of hedged item used to determine hedge effectiveness	464	1,692
Ineffectiveness	(97)	243

Also, during 2019 the Company hedged currency exposures related to transactions in currencies other than the functional currency for subsidiaries by way of foreign exchange forward rate contracts in order to minimize volatility in the operating income of these subsidiaries due to changes in exchange rates. In addition, foreign currency corporate balance sheet positions arising due to foreign currency receivables and loan balances were hedged by way of foreign exchange forward rate contracts and foreign exchange swaps.

The movements in fair value of all derivatives are shown in the table below:

In € thousands	2019	2018
Balance at 1 January	**966**	**3,428**
Acquisitions	–	95
Changes in Income statement	2,826	1,336
Changes through Other comprehensive income	886	(424)
Cash settlement derivatives	(1,487)	(3,351)
Exchange rate differences	(1,178)	(118)
Balance at 31 December	**2,013**	**966**

The change in fair value of derivatives recognized in profit or loss is €2.9 million positive (2018: €0.8 million positive) together with foreign exchange results of €5.7 million negative (2018: €5.9 million negative) also flowing through profit or loss. Hence the overall profit or loss effect of foreign exchange contracts and derivatives amounts to €2.8 million negative (2018: €5.0 million negative).

Hedging reserve

The total (after-tax) amount included in Other comprehensive income, on the line hedging reserve within equity, can be specified as follows:

In € thousands	2019	2018
Interest rate derivatives	(1,210)	(2,221)
Foreign exchange derivatives (classified as cash flow hedges)	269	269
Cost of hedging reserve	395	521
Total	**(546)**	**(1,431)**

19 Other non-current assets

Other non-current assets are non-derivative financial assets and include long-term receivables (due for settlement after one year). Long-term receivables are initially recognized at fair value plus any directly attributable transaction costs. Subsequently these assets are held at amortized cost, using the effective interest method and net of any impairment losses.

In € thousands	2019	2018
Balance at 1 January	**26,668**	**28,921**
Acquisitions/ (divestments)	–	1,138
New receivables	5,104	2,590
Received	(4,584)	(5,979)
Reclassification to short-term	–	(488)
Other changes and exchange rate differences	407	366
Balance at 31 December	**27,595**	**26,548**

Other non-current assets include long-term receivables of €11.3 million (2018: €11.0 million) related to the deferred compensation plan in the United States of America operating company, see note 27 for further details. The remaining amount consists of various other long-term receivables such as rental deposits, judicial deposits and retentions.

20 Trade receivables

Trade receivables include amounts billed to customers for work performed but not yet paid by the clients, and which are expected to be collected within a year after reporting date. Trade receivables are initially measured at fair value, which normally represents the consideration the Company expects to receive within the payment term (invoice amount excluding costs collected on behalf of third parties, such as sales taxes). Subsequently Trade receivables are measured at the consideration expected to be collected.

The Company uses the Expected Credit Loss (ECL) model. Trade receivables are reviewed for collectability on a case-by-case basis at regular intervals. If a Trade receivable is considered credit impaired (e.g. the customer has failed to make a payment when contractually due) the expected loss is determined as the difference between the carrying amount and the recoverable amount. The recoverable amount is the present value of expected future cash flows discounted at the effective market interest rates.

A simplified approach is applied that uses a lifetime expected loss allowance to recognize losses for possible impairment of Trade receivables that are not individually impaired yet. The Expected Credit Loss is recognized in Other operational costs.

In € thousands	2019	2018
Trade receivables	661,978	643,435
Provision for trade receivables (individually impaired bad debt)	(59,667)	(60,445)
Provision for trade receivables (Expected Credit Loss)	(685)	(753)
Receivables from associates	1,274	1,503
Total at 31 December	**602,900**	**583,740**

Of the total gross Trade receivables, approximately 8% is subject to a so-called 'paid-when-paid' clause (2018: less than 5%). They are classified as current as Arcadis expects to collect the amounts within one year. Further information about Arcadis' exposure to credit risk is included below and in note 31.

Ageing of Trade receivables

	2019			2018		
	Gross Receivables	Provision bad debt	Provision ECL	Gross Receivables	Provision bad debt	Provision ECL
Not past due	381,034	(4,155)	(358)	324,533	(2,348)	(302)
Past due 0-30 days	102,464	(1,076)	(75)	106,072	(1,193)	(60)
Past due 31-60 days	39,828	(550)	(41)	48,280	(475)	(23)
Past due 61-120 days	27,195	(599)	(49)	37,481	(1,055)	(37)
Past due 121-364 days	47,489	(6,201)	(78)	49,566	(7,661)	(78)
More than 364 days due	63,969	(47,087)	(85)	77,503	(47,713)	(253)
Total	**661,978**	**(59,668)**	**(685)**	**643,433**	**(60,445)**	**(753)**

The improvement in the trade receivables overdue more than one year is due to significant collections in North America.

Individual assessments, in combination with the fact that the actual write-offs of Trade receivables in recent years did not cause us to expect that the provision should be significantly higher, resulted in the conclusion that the provision for bad debt is sufficient to cover for Trade receivables for which there is objective evidence of an impairment.

Provision for Trade receivables

The total provision for Trade receivable includes the Expected Credit Loss for individually non-impaired items due to IFRS 9. To apply the simplified approach Arcadis grouped the Trade receivables by country and the days past due. The expected loss rate is based on the country risk.

In summary, the loss allowance for Trade receivables as at 31 December 2019 was determined as follows:

In € thousands	Current	More than 30 days past due	More than 90 days past due	More than 120 days past due
Expected loss rate[1]	0.10%	0.10%	0.25%	0.27%
Gross carrying amount	365,013	165,657	10,021	61,532
Expected Credit Loss	357	140	25	163

[1] Weighted average loss rate for the Group, based on individual positions in countries and the applicable Probabilities of Default

The total provision for Trade receivables developed as follows:

In € thousands	2019	2018
Balance at 1 January	**61,198**	**57,794**
Acquisitions/(divestments)	20	932
Additions charged to profit or loss	16,923	25,619
Release of unused amounts	(13,046)	(15,141)
Remeasurement Expected Credit Loss	(68)	(327)
Utilizations	(5,635)	(8,672)
Exchange rate differences	961	993
Balance at 31 December	**60,353**	**61,198**

21 Contract assets and liabilities

When revenue (cost for contract work performed to date plus recognized profits) exceeds the progress billings, the surplus is shown as a Contract asset (unbilled receivables). When progress billings exceed the revenue (cost for contract work performed to date plus recognized profits), the balance is shown as a Contract liability (billing in excess of revenue). Recognized loss provisions are separately presented as Provision for onerous contracts. Contract assets, Contract liabilities and the related Provision for onerous contracts are generally also referred to as Work in progress.

Contract assets are subject to the Expected Credit Loss (ECL) model. Arcadis applies a simplified approach that uses a lifetime expected loss allowance to recognize losses for possible impairment, in line with the accounting for Expected Credit Loss on Trade receivables. The Expected Credit Loss is recognized in Other operational costs.

For further details on the recognition of Contract assets, Contract liabilities and the Provision for onerous contracts see the revenue accounting policy in note 6.

The balances of Contract assets and Contract liabilities, as well as the Provision for onerous contracts, are as follows:

	2019				2018			
In € thousands	Contract assets	Contract liabilities	Provision for onerous contracts	Net position	Contract assets	Contract liabilities	Provision for onerous contracts	Net position
Cumulative revenue	6,638,772	3,570,531	–	10,209,304	5,734,783	3,166,842	–	8,901,625
Loss provisions	–	–	(90,545)	(90,545)	–	–	(115,643)	(115,643)
Expected Credit Loss allowance	(62)	–	–	(62)	(93)	–	–	(93)
Billings to date	(5,968,861)	(3,855,575)	–	(9,824,435)	(5,189,198)	(3,422,422)	–	(8,611,620)
Total	**669,849**	**(285,044)**	**(90,545)**	**294,260**	**545,492**	**(255,580)**	**(115,643)**	**174,269**

The decrease in the Provision for onerous contracts is due to the closing of projects in 2019. They only contain loss provisions for future costs; any realized losses are part of the cumulative revenue.

Advances received and retentions held by clients reported as part of Contract assets and liabilities amount to:

In € thousands	2019	2018
Amount of advances received	960	425
Amount of retentions held by clients	3,466	1,559

Advances received relate to advanced payments which are received on projects not yet started. Retentions relate to amounts retained by clients which will be paid to the Company after successful completion of the contract. The outstanding retentions recognized as part of the Contract assets and liabilities are expected to be collected within a year; an amount of €4.5 million (2018: €1.5 million) of retentions have been recognized as ‘Other non-current assets’ (see note 19).

Expected Credit Loss allowance

The Expected Credit Loss allowance for Contract assets developed as follows:

In € thousands	2019	2018
Balance at 1 January	93	179
Remeasurement Expected Credit Loss	(31)	(86)
Exchange rate differences	–	–
Balance at 31 December	**62**	**93**

22 Assets classified as held for sale

In accordance with IFRS 5, non-current assets and disposal groups are classified as 'held for sale' when the following criteria are met:

- Management is committed to a plan to sell;
- The asset is available for immediate sale;
- An active program to locate a buyer is initiated;
- The sale is highly probable within twelve months of classification as held for sale;
- The asset is being actively marketed for sale at a sales price reasonable in relation to its fair value; and
- Actions required to complete the plan indicate that it is unlikely that plan will be significantly changed or withdrawn.

Immediately prior to classification as held for sale, the assets or groups of assets are measured at carrying value. Subsequently, assets and disposal groups classified as held for sale are valued at the lower of book value or fair value less disposal costs. Assets held for sale are not depreciated.

At 31 December 2019 the Group does not have non-current assets and disposal groups that meet the criteria as Asset held for sale. The business unit in Asia reported as Asset held for sale at 31 December 2018 has been disposed of in 2019, see also note 5 and 7.

23 Other current assets

Other current assets are initially recognized at fair value plus any directly attributable transaction costs. Subsequently these assets are held at amortized cost, using the effective interest method and net of any impairment losses.

In € thousands	2019	2018
Other receivables	21,822	26,242
Prepaid expenses	29,631	37,813
Balance at 31 December	**51,453**	**64,055**

Other receivables are non-trade receivables and include, among others, deposits, claims to be received, interest to be received and short-term loans/prepayments to personnel. Prepaid expenses mainly include prepayments of IT contracts, rent and insurances.

24 Cash and cash equivalents

Cash and cash equivalents comprise cash balances and call deposits maturing within three months from the acquisition date and used by the Company in managing its short-term commitments. For cash flow reporting purposes bank overdrafts are included in Cash and cash equivalents.

Cash and cash equivalents and Bank overdrafts are offset to the extent the offsetting criteria have been met, which include the legally enforceable 'right to set off' and the intention to settle on a net basis.

Cash and cash equivalents at the balance sheet date can be specified as below.

In € thousands	2019	2018
Bank and cash	264,064	232,851
Deposits	32,831	7,964
Balance at 31 December	**296,895**	**240,815**
Bank overdrafts used for cash management purposes	(472)	(135)
Cash and cash equivalents less bank overdraft	**296,423**	**240,680**

The average effective interest rate earned on cash during 2019 was 1.0% (2018: 1.1%). At 31 December 2019, €259.4 million of Cash and cash equivalents was freely available (2018: €204.7 million).

Restricted cash amounting to €37.5 million is composed of cash balances mainly held in China (2018: €36.1 million). Arcadis has control over these balances, however, repatriation may be limited due to local regulatory requirements or restrictions. As a result, in some regions cash balances cannot be included in the global cash pooling structures or liquidity enhancement structures. In line with industry practice, Arcadis considers cash to be restricted if the Company is unable to repatriate cash within a defined period via either dividends, intercompany loans or settlement of intercompany invoices.

At 31 December 2019, no Cash and cash equivalents and Bank overdrafts have been offset (2018: nil).

25 Equity attributable to equity holders

Share capital
Ordinary shares are classified as equity. Incremental costs directly attributable to the issuance of ordinary shares and rights to acquire shares are recognized as a deduction of equity, net of any tax effects.

Priority shares and preference shares are classified as equity since these are non- redeemable, or only redeemable at the Company’s option. Dividends on these shares are recognized as distributions within equity.

Repurchase of shares
When share capital is repurchased, the consideration paid, including directly attributable costs net of any tax effects, is deducted from equity. Repurchased shares (treasury shares) are presented as a deduction from total equity. When treasury shares are sold or reissued, subsequently any amount received is recognized as an increase in equity, and the resulting surplus or deficit on the transaction is transferred to/from retained earnings.

Dividends
Dividends are recognized as a liability in the period in which they are declared.

In €	Authorized share capital	Issued and paid-up capital
2019		
Ordinary shares (120,000,000, nominal value €0.02)	2,400,000	1,808,842
Cumulative preferred (protective) shares (150,000,000, nominal value €0.02)	3,000,000	–
Cumulative financing preferred shares (30,000,000, nominal value €0.02)	600,000	–
Priority shares (600, nominal value €0.02)	12	12
Total as at 31 December	**6,000,012**	**1,808,854**

The development of the number of shares issued/outstanding during 2019 and 2018 is presented in the table below.

Number of shares	Ordinary shares	Priority shares	Treasury stock	Total issued shares
At 1 January 2018	**86,463,058**	**600**	**944,153**	**87,407,811**
Shares issued (stock dividend)	1,608,094	–	–	1,608,094
Repurchased shares	(580,958)	–	580,958	–
Exercised shares and options	221,133	–	(221,133)	–
At 31 December 2018	**87,711,327**	**600**	**1,303,978**	**89,015,905**
Shares issued (stock dividend)	1,426,786	–	–	1,426,786
Repurchased shares	(850,000)	–	850,000	–
Exercised options	757,115	–	(757,115)	–
At 31 December 2019	**89,045,228**	**600**	**1,396,863**	**90,442,691**

Priority shares

Total number of outstanding priority shares at 31 December 2019 is 600 (2018: 600). In 2019 no preferred (protective) shares or financing preference shares were issued or outstanding.

The priority shares have been issued since 1987 and are all held by Stichting Prioriteit Arcadis NV; a foundation with its corporate seat in Arnhem. Special rights under the Articles of Association of Arcadis NV linked to these priority shares concern decision making related to, among others:

- The issuance, acquisition and disposal of shares in the Company;
- Amendments to the Articles of Association;
- The dissolution of the Company and the filing for bankruptcy;
- The entry into or termination of long-term cooperative ventures of substantial significance; and
- Investments (including entering into participations) for an amount equal to at least 25% of the shareholders’ equity.

Pursuant to the articles of association of the Priority Foundation, the Board of the Stichting Prioriteit Arcadis NV consists of twenty (20) board members (with two vacancies at 31 December 2019): all seven (7) members of Arcadis' Supervisory Board, all two (2) members of Arcadis' Executive Board, one (1) member of the Executive Leadership Team and all ten (10) members from the Board of Stichting Bellevue (a foundation with its corporate sit in Arnhem, whose board members are appointed by and from the international employees of the Group, two vacancies at 31 December 2019).

Cumulative Preferred (Protective) Shares

Currently no cumulative preferred (protective) shares have been issued. However, an option agreement to acquire such shares has been entered into between Stichting Preferente Aandelen Arcadis NV (the 'Preferred Stock Foundation') and Arcadis NV under that agreement. The Preferred Stock Foundation has been granted the right to acquire protective shares up to a maximum equal to the number of outstanding shares at the date in question (call option).

The Board of the Preferred Stock Foundation consists of three (3) members appointed by the Board itself. The Chairman (or another member) of the Supervisory Board and the CEO (or the other member of the Executive Board) will be invited to attend the board meetings of this foundation. This will not apply if a decision is to be made on the exercise of the option right or the exercise of voting rights on acquired shares.

Cumulative financing preferred shares

Since 2002, the Articles of Association of Arcadis NV include the possibility to issue cumulative financing preferred shares. Currently, no such shares have been issued.

Agreements with shareholders

The Articles of Association of Stichting Lovinklaan stipulate that their Articles of Association cannot be amended without prior approval of Stichting Prioriteit Arcadis NV. In a separate agreement between Stichting Prioriteit Arcadis NV and Stichting Lovinklaan it is stipulated that prior approval of Stichting Prioriteit Arcadis NV is required for any resolution concerning the disposal or transfer of shares in Arcadis NV if, as a result of such resolution the number of shares held by Stichting Lovinklaan will drop below 12,000,000 (number of shares held at 31 December 2019: 16,226,263).

Issuance of shares

The General Meeting decided, with the approval of the Supervisory Board and Stichting Prioriteit Arcadis NV, about the issuance of shares or grant of rights to acquire shares. The General Meeting can also delegate its authority to issue shares, or part thereof, to the Executive Board. As long as any such delegation stands, the General Meeting cannot decide to issue. A total of 1,426,786 shares were issued in 2019 to distribute to those shareholders that opted to receive their dividend in the form of shares (stock dividend) (2018: 1,608,094).

Purchase of shares

As mandated by the General Meeting of Shareholders and with approval from the Supervisory Board and Stichting Prioriteit Arcadis NV, the Executive Board may purchase fully paid-up shares in Arcadis NV. The mandate is not needed in case the shares are purchased to be transferred to employees. As a result of its Long-Term Incentive Plan(s) or related arrangements, Arcadis needs to provide shares to persons working for Arcadis. The intention is to minimize dilution by purchasing (a portion of) the shares needed for such Long-Term Incentive Plan(s) (or related arrangements), as opposed to issuing new shares. No shares were issued in 2019 to cover for obligations in relation to the vesting of RSUs or the exercise of options (2018: nil).

The following numbers of shares were repurchased over the past five years:

Year	Number of shares	Price at time of purchase (in €)
2015	1,500,000	25.16 to 31.15
2016	1,000,000	11.38 to 17.75
2017	419,042	17.42 to 19.91
2018	580,958	16.61 to 20.06
2019	**850,000**	**13.82 to 17.59**

The repurchased shares are to cover for the vesting/exercise of shares and options granted. The cash equivalent of the temporary repurchased shares has been deducted from Retained earnings.

Of the purchased shares, a total number of 757,115 has been placed back in the market through the exercise of options in 2019 (2018: 221,133). Net proceeds included in Retained earnings amounted to €10.8 million (2018: €2.8 million).

At 31 December 2019, the number of repurchased shares in stock (treasury stock) amounted to 1,396,863 (2018: 1,303,978).

The number of outstanding ordinary shares over the past five years developed as follows:

Year	1 January	Issued shares	Repurchased shares	Reissued shares	31 December
2015	82,039,594	813,946	(1,500,000)	1,952,611	83,306,151
2016	83,306,151	2,143,932	(1,000,000)	342,089	84,792,172
2017	84,792,172	1,340,343	(419,042)	749,585	86,463,058
2018	86,463,058	1,608,094	(580,958)	221,133	87,711,327
2019	**87,711,327**	**1,426,786**	**(850,000)**	**757,115**	**89,045,228**

Share premium

Share premium represents the premium paid in excess of the par value of shares at the time of the issuance of new shares or exercise of share options.

Translation reserve

Translation reserve (a statutory reserve) comprises all foreign exchange differences arising from the translation of the financial statements of foreign operations. €33.8 million was added to the Translation reserve in 2019 (2018: €6.9 million).

Hedging reserve

The hedging reserve comprises the effective portion of the cumulative net change in fair value of cash flow hedging instruments related to hedged transactions that have not yet occurred. €1.0 million was added to the Hedging reserve in 2019, including a tax effect of €0.1 million (2018: €0.1 million negative and €0.1 million, respectively).

Retained earnings

The Executive Board proposes, with the approval of the Supervisory Board, which part of the profit shall be reserved. The remaining part of the profits shall be at the disposal of the General Meeting of Shareholders and may be distributed as dividend. The holder of the priority shares is entitled to a dividend of 5% of the par value of the priority shares, prior to any dividend distribution being made. On these shares no further distributions shall be made.

Profit allocation

The profit attributable to the equity holders of the Company over fiscal year 2019 amounts to €12.3 million. The Executive Board, with the approval of the Supervisory Board, proposes to deduct an amount of €37.7 million from the retained earnings and to present for approval to the General Meeting of Shareholders its proposal to distribute a dividend amount of €50.0 million, which represents a dividend of €0.56 per ordinary share (2018: €0.47), at the option of the respective shareholder(s) in cash or in the form of shares. Of the total Retained earnings, an amount of €55.6 million of legal reserves is restricted in distribution (2018: €74.2 million). See note 45 to the Company financial statements for further details.

26 Non-controlling interests

Non-controlling interests represent the net assets which are not held by the Company and are presented within total equity in the Consolidated balance sheet as a separate category. Profit or loss and each component of Other comprehensive income are attributed to the equity holders and to the non-controlling interests.

The movements in non-controlling interests are specified below.

In € thousands	2019	2018
Balance at 1 January	**2,199**	**2,691**
Share in profit for the year	2,550	953
Dividends to non-controlling shareholders	(1,253)	(560)
Acquisitions/(divestments)	(602)	(806)
Exchange rate differences	(18)	(79)
Balance at 31 December	**2,876**	**2,199**

At 31 December 2019, the non-controlling interests mainly consisted of:

- Arcadis and Towell Sdn. Bhd. (25%) (2018: 25%)
- Hyder Middle East Limited International Company (30%) (2018: 30%)
- Hyder & Solaiman Elkhereiji Engineering Consultants (30%) (2018: 30%)
- Gerenciamento Nacala Ltda (40%) (2018: 40%)
- Arcadis CED Project Service Bureau BV (45%) (2018: 45%)

During 2019, the Group also had a non-controlling interest in Enterprise Asset Management Solutions (EAMS) Group. See note 5 for further details.

27 Provisions for employee benefits

Most of the pension plans of the Group qualify as defined contribution pension plans. However, the Group also operates a few defined benefit pension plans.

Defined contribution pension plans
For defined contribution pension plans, the Group pays fixed contributions into a separate entity, which are charged to profit or loss in the period during which services are provided by employees. The Group's legal or constructive obligation is limited to the contributions paid into the plans. Prepaid contributions are recognized as an asset to the extent that Arcadis has the unconditional right to cash refunds or reduction in future payments.

Defined benefit pension plans
Some of the pension plans qualify as defined benefit pension plans. For these plans, the costs are recognized as personnel costs and financing costs in profit or loss. The amount charged to personnel costs is the cost of accruing pension benefits promised to employees over the year, plus the costs of individual events such as past service benefit changes, settlements and curtailments (such events are recognized immediately in profit or loss).

The amount charged to financing costs is the net interest expense calculated by applying the liability discount rate to the net defined benefit liability or asset. Any differences between the expected interest on assets and the return actually achieved, and any changes in the liabilities over the year due to changes in assumptions or experience within the plans, are recognized immediately in profit or loss.

The majority of the defined benefit pension plans are funded with plan assets that have been segregated in a trust or foundation. These plans are subject to regular actuarial review by external actuaries, using the projected unit credit method.

The defined benefit pension plan on the balance sheet comprises the present value of the defined benefit pension obligation and the fair value of plan assets. The present value of the obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds (or suitable alternative where there is no active corporate bond market) that are denominated in the currency in which the benefits will be paid, and with maturity dates approximating to the terms of the related pension obligations.

Remeasurements arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in Other comprehensive income in the period in which they arise. Past-service costs are recognized immediately in profit or loss.

The table below provides a summary of the total provision for employee benefits at the balance sheet date.

In € thousands	Asset side	Liability side	Total 2019
Defined benefit pension plans	3,706	37,006	33,300
Other deferred compensation plans	–	19,095	19,095
Total provision for employee benefits	**3,706**	**56,101**	**52,395**
Non-current	3,706	49,493	45,787
Current	–	6,608	6,608
Total	**3,706**	**56,101**	**52,395**

In € thousands	Asset side	Liability side	Total 2018
Defined benefit pension plans	2,040	34,789	32,749
Other deferred compensation plans	–	17,288	17,288
Total provision for employee benefits	**2,040**	**52,077**	**50,037**
Non-current	2,040	45,848	43,808
Current	–	6,229	6,229
Total	**2,040**	**52,077**	**50,037**

Pension costs recognized in profit or loss

The total pension costs recognized in profit or loss were as follows:

In € thousands	2019	2018
Total defined benefit pension plans	4,731	9,660
Total defined contribution pension plan and other deferred compensation plans	65,325	58,857
Total pension costs	**70,056**	**68,517**

The pension expenses of defined benefit and defined contribution pension plans are recognized in the following line items in the Consolidated income statement:

In € thousands	2019	2018
Personnel costs	69,936	68,312
Finance expenses	120	205
Total pension costs	**70,056**	**68,517**

In 2018, the pension costs included a one-off impact of €4.2 million for defined benefit plans in the UK, relating to Guaranteed Minimum Pension (GMP) equalization. No such one-off impact was recognized in 2019.

Defined benefit pension plans

Description of plans

The defined benefit pension plans of the Group are either career average, final salary or hybrid plans. In addition, there is a termination indemnity plan for Arcadis Middle East, which pays out a single lump sum at exit (regardless of age, service or reason for exit).

The two main defined benefit pension plans are in the UK, being the 'EC Harris Group Pension Scheme' and the 'Acer Group Pension Scheme' (formerly Hyder), which account for approximately 3% of the total defined benefit liability (2018: 7%). The remaining liability is due to the termination indemnity plan in Arcadis Middle East (formerly Hyder) (48% of the total defined benefit liability as at 31 December 2019) and other individually immaterial defined benefit pension plans within the Group (48% of the total defined benefit liability as at 31 December 2019).

The EC Harris Group Pension Scheme has been closed for future accruals since 31 January 2011, whereas the Acer Group Pension Scheme was closed for future accruals since 30 April 2011. Both plans are funded plans. The other defined benefit pensions plans are mainly active and funded plans.

Governance

The majority of the defined benefit pension plans are established as independent foundations or similar entities, with operations governed by local regulations and practice in each country. Boards of Trustees, which consist of employer and employee representatives, are generally required to act on behalf of the plan's stakeholders and perform periodic reviews on the solvency of the funds in accordance with local laws and regulations. They are responsible for administering the plan assets and for defining the investment strategy.

Investment strategy

The investment strategy of the Group in respect of the funded plans is implemented within the framework of the various local requirements of the countries where the plans are based. The objective is to control the risks and maintain an appropriate balance between the risks and the long-term returns. Therefore, the investments are well diversified and managed within the asset-liability matching (ALM) frameworks of the funds. Within these frameworks the objective is to match assets to the pensions obligations by investing in long-term fixed interest securities with maturities that match the benefit payments as they fall due and in the appropriate currency.

Specification defined benefit pension plans

The table below provides a summary of the classification of the defined benefit pension plans at 31 December.

	2019			2018		
In € thousands	Present value of obligation	Fair value of plan assets	Total	Present value of obligation	Fair value of plan assets	Total
EC Harris Group Pension Scheme (ECH)	113,796	117,503	(3,706)	96,945	98,985	(2,040)
Acer Group Pension Scheme (AGPS)	245,688	240,698	4,990	212,447	208,249	4,198
ME Termination Indemnity Plan (HME)	17,892	–	17,892	13,013	–	13,013
Other defined benefit pension plans			17,830			17,578
Total defined benefit pension plans			**37,006**			**32,749**

The movement in the defined benefit pension plans is as follows:

In € thousands	2019	2018
Balance at 1 January	**32,749**	**37,832**
Acquisitions	–	–
Additions	3,361	8,650
Amounts used	(306)	(1,032)
Pension plan changes to net asset position	613	(13,711)
Exchange rate differences	589	1,010
Balance at 31 December	**37,006**	**32,749**
Non-current	36,979	32,722
Current	27	27
Total	**37,006**	**32,749**

The next table provides a summary of the changes in the defined benefit obligations and the fair value of the plan assets for the UK (A and B), Arcadis Middle East (C) and the other defined benefit pension plans (D). It also provides a reconciliation of the funded status of the plans to the amounts recognized in the Consolidated balance sheet.

In € thousands	ECH	AGPS	AME	Other	Total
Balance at 31 December 2018	**(1,754)**	**7,729**	**12,421**	**19,436**	**37,832**
Current service cost	31	–	2,156		
Interest expense/(income)	(70)	167	331		
One-off equalization cost	565	3,677	–		
Subtotal	**526**	**3,844**	**2,487**	**2,873**	**9,730**
Remeasurement:					
Return on plan assets excluding amounts included in interest expense/(income)	5,976	9,392	–		
(Gain)/loss from change in financial assumptions	(7,200)	(14,858)	401		
(Gain)/loss from change in demographic assumptions	1,818	(947)	94		
Experience (gain)/loss	621	1,566	934		
Total remeasurement	**1,215**	**(4,847)**	**1,429**	**(3,590)**	**(5,793)**
Exchange rate differences	23	(32)	333	687	1,011
Contributions by employer	(2,050)	(2,496)	–	(4,453)	(8,999)
Benefit payments from plans	–	–	(3,657)	2,625	(1,032)
Balance at 31 December 2018	**(2,040)**	**4,198**	**13,013**	**17,578**	**32,749**
Current service cost	–	–	2,791		
Interest expense/(income)	(94)	92	588		
One-off equalization cost	–	–	–		
Reclassification	–	–	4,071		
Subtotal	**(94)**	**92**	**7,450**	**(2,717)**	**4,731**
Remeasurement:					
Return on plan assets excluding amounts included in interest expense/(income)	(9,651)	(18,696)	–		
(Gain)/loss from change in financial assumptions	12,832	24,799	(105)		
(Gain)/loss from change in demographic assumptions	(1,370)	(2,532)	(67)		
Experience (gain)/loss	(1,002)	(823)	322		
Total remeasurement	**809**	**2,748**	**150**	**198**	**3,905**
Exchange rate differences	(190)	274	335	3,180	3,599
Contributions by employer	(2,191)	(2,322)	–	(3,159)	(7,672)
Benefit payments from plans	–	–	(3,056)	2,750	(306)
Balance at 31 December 2019	**(3,706)**	**4,990**	**17,892**	**17,830**	**37,006**

(A) EC Harris group pension scheme (ECH)

Plan assets allocation

All invested assets shown in the table below are quoted.

In € thousands / %	2019	%	2018	%
Equities	13,101	11	10,662	11
Fixed income	18,414	16	64,275	65
Property and real estate	5,531	5	6,022	6
Hedge funds	–	0	–	–
Cash	1,051	1	6,606	7
Other	79,406	68	11,420	11
Total at 31 December	**117,503**	**100**	**98,985**	**100**

Actuarial assumptions

The principal actuarial assumptions at the reporting dates are:

In %	2019	2018
Discount rate	2.10	2.90
Pension increases	2.05 - 3.45	2.50 - 3.60
Retail price index inflation	3.20	3.50
Consumer price index inflation	2.20	2.50

The discount rate is based on yields on UK AA-rated high-quality corporate bonds, with durations comparable to the duration of the pension plan's liabilities. Based on the assumptions described in this note, these payments have an average duration of twenty years.

Demographic assumptions regarding future mortality are based on published statistics and mortality tables. The current life expectancy (in years) underlying the values of the liabilities in the defined benefit plans are as follows:

In years	2019	2018
Male/female currently aged 65	22.3 / 24.3	22.3 / 24.3
Male/female reaching age of 65 in 20 years	23.7 / 25.8	24.0 / 26.1

Sensitivity analysis
The calculation of the defined benefit obligation is sensitive to, amongst others, the discount rate, rate of inflation and changes in the mortality assumptions.

In % / € thousands	Change in assumptions	Change in pension liability
Discount rate	0.5%	11,800
Rate of inflation	0.5%	5,900
Life expectancy	one-year increase	4,700

The sensitivity analysis as disclosed in the 2018 financial statements was as follows:

In % / € thousands	Change in assumptions	Change in pension liability
Discount rate	0.5%	8,900
Rate of inflation	0.5%	4,500
Life expectancy	one-year increase	3,800

Defined benefit liability and employer contributions
The Company expects no contributions to be paid to the plan in 2020. The estimated net pension costs to be recognized in the Consolidated income statement in 2020 amounts to €0.1 million, relating to net interest charges. The estimated weighted average duration of the defined benefit obligation is around 18 years.

(B) Acer Group Pension Scheme (AGPS)

Plan assets allocation
All invested assets shown in the table below are quoted.

In € thousands / %	2019	%	2018	%
Equities	80,157	33	50,828	24
Fixed income	82,540	34	65,453	32
Property and real estate	7,223	3	6,926	3
Hedge funds	61,295	25	69,763	34
Cash	9,483	4	15,279	7
Total at 31 December	**240,698**	**100**	**208,249**	**100**

Actuarial assumptions
The principal actuarial assumptions at the reporting dates are:

In %	2019	2018
Discount rate	2.10	2.90
Pension increases	2.05 - 3.45	2.20 - 3.30
Retail price index inflation	3.20	3.50
Consumer price index inflation	2.20	2.50

The discount rate is based on yields on UK AA-rated high-quality corporate bonds, with durations comparable to the duration of the pension plan's liabilities. Based on the assumptions described in this note, these payments have an average duration of 18 years.

Demographic assumptions regarding future mortality are based on published statistics and mortality tables. The current life expectancy underlying the values of the liabilities in the defined benefit plans are as follows:

In years	2019	2018
Male/female currently aged 65	22.3 / 24.3	22.4 / 24.4
Male/female reaching age of 65 in 20 years	23.7 / 25.8	24.1 / 26.2

Sensitivity analysis
The calculation of the defined benefit obligation is sensitive to, amongst others, the discount rate, rate of inflation and changes in life expectancy. In 2019, the sensitivity analysis was as follows:

In % / € thousands	Change in assumptions	Change in pension liability
Discount rate	0.5%	23,600
Rate of inflation	0.5%	14,100
Life expectancy	one-year increase	10,600

The sensitivity analysis as disclosed in the 2018 financial statements was as follows:

In % / € thousands	Change in assumptions	Change in pension liability
Discount rate	0.5%	18,900
Rate of inflation	0.5%	11,100
Life expectancy	one-year increase	7,800

Defined benefit liability and employer contributions

The Group has agreed that it will aim to eliminate any pension plan deficit within the next ten years. Therefore, funding levels are monitored on an annual basis.

The Company expects €2.4 million in contributions to be paid to the plan in 2020.

The estimated net pension costs to be recognized in the Consolidated income statement in 2020 amounts to €0.1 million, relating to net interest charges. The estimated weighted average duration of the defined benefit obligation is around 18 years.

(C) Arcadis ME End of service benefits (AME)

Plan assets

There is no local regulation that requires a level of funding of the plan, therefore no assets have been set aside to fund these arrangements.

Actuarial assumptions

The principal actuarial assumptions at the reporting date are:

In %	2019	2018
Discount rate	2.40	3.80
Salary increases (expected, per annum)	2.00	3.50

As there is no deep market in corporate bonds within the Gulf Cooperation Council (GCC) region and the limited number of government bonds available do not provide an adequate reference, the discount rate is based on the US AA-rated corporate bond market as a proxy. The payments have an average duration of four years.

Demographic assumptions for mortality, withdrawal, and retirement are used in determining the liability. Because of the nature of the benefit, which is a lump sum payable on exit due to any cause, a combined single decrement rate has been used. The retirement age used for the actuarial valuations is as follows:

In years	2019	2018
Male/female Saudi Arabia	60 / 55	60 / 55
Male/female other countries	65 / 65	65 / 65

Sensitivity analysis

The calculation of the liability of AME is sensitive to the discount rate and salary increases. In 2019, the sensitivity analysis was as follows:

In % / € thousands	Change in assumptions	Change in pension liability
Discount rate	0.5%	400
Salary increases	0.5%	400

The sensitivity analysis as disclosed in the 2018 financial statements was as follows:

In % / € thousands	Change in assumptions	Change in pension liability
Discount rate	0.5%	400
Salary increases	0.5%	400

Defined benefit liability and employer contributions

The Company expects €2.2 million of service costs and €0.4 million of interest costs to be recognized in the Consolidated income statement in 2020. The estimated weighted average duration of the defined benefit obligation is around four years.

(D) Other defined benefit pension plans

The other defined benefit pension plans are individually immaterial and mainly relate to France, Germany and the UK. No detailed disclosures for these individual plans are provided. For the movement in the balance sheet position of these other defined benefit pension plans see below.

Other deferred compensation plans

The other deferred compensation plans consist of the following balances:

In € thousands	2019	2018
Deferred salaries	11,271	10,988
Future jubilee payments	3,500	2,600
Other	4,324	3,700
Balance at 31 December	**19,095**	**17,288**

The movement in the other deferred compensation is as follows:

In € thousands	2019	2018
Balance at 1 January	**17,288**	**19,436**
Acquisitions	–	–
Additions	1,555	672
Amounts used/released	(28)	(2,960)
Exchange rate differences	280	140
Balance at 31 December	**19,095**	**17,288**
Non-current	12,513	11,086
Current	6,582	6,202
Balance at 31 December	**19,095**	**17,288**

Deferred salaries

The deferred salaries mainly include a plan for deferred compensation of our operating company in the United States. Management of this operating company can elect not to have its salary paid out, but rather invested in a fund by the Company, and is offered a choice of three different portfolio types: risk averse, neutral and risky. The risk is the responsibility of the participants. The related assets are included in note 19 for an amount of €11.3 million (2018: €11.0 million).

Future jubilee payments

An amount of €3.5 million is recognized for future jubilee payments based on the current agreements in the collective labor agreements and the related staff levels (2018: €2.6 million). The increase is due to changes in the participants and a decreased discount rate.

Other

Other deferred compensation includes €4.0 million of long service leave provisions in Australia, where employees are entitled to long service leave after a certain number of years of continuous service (2018: €3.6 million). The time allowance and conditions of entitlement are set out in legislation and vary by territory. An amount of €3.0 million is expected to be paid within one year (2018: €2.7 million).

28 Provisions for other liabilities and charges

Provisions are recognized when there is a present obligation (legal or constructive) as a result of a past event, a reliable estimate can be made of the amount of the obligation, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are measured at net present value, taking into account the timing of the cash outflows. The discount rate used reflects the current market assessments of the time value of money and the risks specific to the liability. Unwinding of the discount is recognized as a finance expense (see note 10).

The amounts recognized as provisions reflect management's best estimate of the expenditures required to settle the present obligations at the balance sheet date or to transfer it to a third party at that time.

Restoration provision for leased assets

For lease contracts that require the Company to maintain an underlying asset during the lease term and/or restore it to its original condition before returning to the lessor at the end of the lease, a restoration provision is recognized when the obligation arises. For the same amount a right-of-use asset is recognized and depreciated over the lease term. The discount rate used is the Incremental Borrowing Rate.

In € thousands	Note	Restructuring	Litigation	Restoration	Other	Total
Balance at 1 January 2018		**4,235**	**23,916**	–	**7,423**	**35,574**
Acquisitions/(disposals)		(21)	148	–	6	133
Additions		8,843	3,853	–	2,058	14,754
Amounts used		(7,703)	(747)	–	(628)	(9,078)
Release of unused amounts		(404)	(9,750)	–	(1,110)	(11,264)
Reclassifications		(40)	(242)	–	1,095	813
Exchange rate differences		45	(281)	–	(228)	(464)
Balance at 31 December 2018		**4,953**	**16,899**	**–**	**8,617**	**30,469**
Impact of IFRS 16	3	–	–	4,061	(1,657)	2,404
Balance at 1 January 2019		**4,953**	**16,899**	**4,061**	**6,960**	**32,873**
Acquisitions/(disposals)		–	–	–	–	–
Additions		4,784	5,931	98	11,745	22,558
Amounts used		(6,050)	(648)	–	(111)	(6,808)
Release of unused amounts		(1,514)	(6,976)	–	(1,076)	(9,566)
Reclassifications		–	(185)	–	(22)	(208)
Exchange rate differences		46	424	137	297	903
Balance at 31 December 2019		**2,219**	**15,445**	**4,296**	**17,793**	**39,753**
Non-current		943	11,757	3,918	6,439	23,057
Current		1,276	3,688	378	11,354	16,696
Total		**2,219**	**15,445**	**4,296**	**17,793**	**39,753**

Restructuring

Provisions for restructuring include costs related to certain staff compensation and costs directly related to the existing plans to execute restructurings, mainly in Continental Europe and CallisonRTKL. A provision is only recognized once the decision to execute said restructuring has been taken, its costs can be reasonably and fairly estimated, and its intended execution has been announced. Existing plans currently include reduction of staff capacity in certain parts of the Company that are expected to be executed in the coming year.

Litigation

Clients of Arcadis sometimes claim, justified or not, that they are not satisfied with the services provided by the Company. While the outcome of these claims cannot be predicted with certainty, management believes that, based on (external) advisors and information received, the provisions of €15.4 million (2018: €16.9 million) are the best estimate of the potential financial risk, net of insurance coverage. These insurance policies include a global professional liability insurance and in addition, local insurance in a number of countries. In general, these insurance policies have a self- insured retention and a maximum pay-out level.

Outstanding litigation (including the provisions, defense costs and reimbursement coverage) is reviewed periodically and revisions are made when necessary. Since the outcome cannot be predicted with certainty and settlement of claims could take several years, final settlement could differ from this best estimate.

The movement in the litigation provision in 2019 includes a release of €0.4 million of acquisition-related claims (€0.4 million net of tax) (2018: €5.7 million, €4.8 million net of tax). The remainder relates to various individually non-material claims.

Further information ordinarily required by IAS 37 has not been disclosed on the grounds that it can be expected to seriously prejudice the outcome of the disputes.

Other

The category other provisions mainly relate to provisions for warranties and obligations relating to ALEN; for the latter see note 16. The provisions are based on the obligation that the Company has with counterparties involved and the estimated cash out flows. No individual items within the other provisions are material and the Company expects that the other provisions will be substantively used within one to five years.

29 Loans and borrowings

Interest-bearing debts are measured at amortized cost, in which the difference between the proceeds and repayments over time is charged to profit or loss over their duration. The portion of long-term debt that has to be repaid within one year after the balance sheet date is presented as the current portion of long-term debt under current liabilities.

Debt securities issued are recognized on the date they are originated. All other financial liabilities are recognized on the trade date at which the Company becomes a party to the contractual provisions of the instrument. Non-derivative financial liabilities include loans and borrowings, bank overdrafts, trade and other payables. Initially these liabilities are recognized at fair value plus directly attributable transaction costs. Subsequently these financial liabilities are measured at amortized cost using the effective interest method.

Bank overdrafts that are repayable on demand and that form an integral part of the Group's cash management are included as a component of cash and cash equivalents for the statement of cash flows.

Fair value, which is determined for disclosure purposes, is calculated based on the present value of future cash flows, discounted at the Company specific market rate of interest at reporting date.

Loans and borrowings at 31 December are as follows:

In € thousands	Interest rates between	2019	2018
Bank loans	1.3% - 5.0%	133,206	202,163
Loan notes issued to financial institutions	1.7% - 5.1%	455,822	380,793
Financial lease contracts[1]	3.0% - 4.0%	–	100
Other long-term debt[2]	3.0% - 6.9%	4,761	5,168
Short-term borrowings	1.0% - 5.0%	17,000	–
Total loans and borrowings		**610,789**	**588,224**
Current[3]		150,206	202,163
Non-current		460,583	386,061
Total		**610,789**	**588,224**

1 Financial lease liabilities were included in borrowings as at 31 December 2018. From 1 January 2019 they are part of the total of lease liabilities, as accounted for and presented in accordance with IFRS 16. See note 3 for further information about the change in accounting policy for leases and note 15 for the lease liabilities at 31 December 2019

2 Including retentions and expected after-payments not due within one year, amounting to €4.8 million (2018: €5.2 million)

3 Excluding after-payments for acquisitions, see note 5

Non-current loans and borrowings

The movement in non-current loans and borrowings is as follows:

In € thousands	2019	2018
Balance at 1 January	386,061	474,429
New debt	264,081	110
Accrued interest	465	239
Redemptions	(2,934)	(3,779)
From current to non-current liabilities	430	(3,620)
Acquisitions (deferred consideration)	2,779	3,900
From long-term to current position other long-term	(192,399)	(97,468)
Exchange rate differences	2,100	12,250
Balance at 31 December	**460,583**	**386,061**

Aggregate maturities of non-current loans and borrowings are as follows:

In € thousands	2019	2018
2020	–	133,385
2021	102,701	97,907
2022	112,499	114,793
2023	39,974	39,976
2024	205,409	–
After 2024	–	–
Balance at 31 December	**460,583**	**386,061**

Current loans and borrowings

The movement in short-term debts and current portion of long-term debts is as follows:

In € thousands	2019	2018
Balance at 1 January	**202,163**	**214,266**
New debt	267,000	230,000
Redemptions	(513,526)	(347,345)
Acquisitions (deferred consideration)	–	–
From long-term to current position other long-term	192,399	97,468
Exchange rate differences	2,170	7,774
Balance at 31 December	**150,206**	**202,163**

Interest rates

The interest rate ranges for the total loans and borrowings are as follows:

In %	2019	2018
0% - 4%	409,233	255,784
4% - 7%	201,556	332,440
Balance at 31 December	**610,789**	**588,224**
Weighted average interest rate[1]	**3.3%**	**3.8%**

[1] On interest-bearing debt (including the interest effect of swaps)

Fair value

The fair value of the Company's loans and borrowings has been estimated based on quoted market prices for the same or similar loans or on the current rates offered to the Company for debt with similar maturities and is estimated at €594.1 million (2018: €587.4 million).

Bank loans (Term loans)

End of January 2019, two long-term bank debt facilities (Term loans) have been refinanced, while one Term loan has been refinanced as a US$115.0 million (€102.5 million) Revolving Credit facility.

The long-term debt includes US$110.0 million (€98.0 million) in fixed rate 5.1% US Private Placement Notes with a maturity in 2021 and Schuldschein debt consisting of €210.0 million and US$83 million fixed rate notes (total value of € 283.9 million) maturing in 2020 (€132.4 million), 2022 and 2023.

At 31 December 2019, €81.5 million of floating rate bank debt has been converted by way of an interest rate swap into EUR fixed rate debt, at a rate of approximately 0.5%. The weighted average remaining lifetime of the swap is 1.3 years. See note 18 for further disclosures on derivatives. The €300.0 million Revolving Credit facility matures in December 2022. The US$115.0 million (€102.5 million) Revolving Credit Facility matures in January 2025, as the first of two extension options have been exercised in December 2019. No further changes were made to these loan facilities and the debt covenants remain unchanged and consistent with all other debt instruments.

Debt covenants

The debt covenant for the above mentioned long-term debt facilities states that the average net debt to EBITDA ratio is not to exceed the maximum ratio of 3.0, which is confirmed to all lenders twice a year. At 31 December 2019, the average net debt to EBITDA ratio calculated in accordance with agreements with the banks is 1.4 (2018: 2.0), see also note 31. The bank covenant ratios are not impacted by IFRS 16.

With effect from 31 December 2013, a lease-adjusted interest coverage ratio is also applicable in which EBITDA to Relevant Net Finance Expense (Net Finance Expense plus Operating Lease Expense) must exceed 1.75. At 31 December 2019, this ratio calculated in accordance with agreements with the lenders is 2.7 (2018: 2.6).

Credit facilities

The total short-term credit facilities amount to €401.9 million, which include all uncommitted credit facilities, bank guarantee facilities and surety bond lines with financial institutions of which €163.3 million has been used as at 31 December 2019 (2018: €438.5 million and €177.5 million respectively).

The Company has short-term uncommitted credit facilities of €97.3 million with relationship banks and three bank guarantee facilities totaling €73.2 million (2018: €121.8 million and €61.6 million respectively).

These short-term credit facilities are used for the financing of working capital and general corporate purposes of the Company.

By the end of the year 2019, the total amount of bank guarantees and letters of credit that were outstanding under the €73.2 million guarantee facilities amounted to €39.0 million (2018: €31.5 million). Additionally, there were other outstanding bank guarantees, letters of credit and surety bonds amounting to €105.6 million (2018: €143.0 million).

30 Accounts payable, accrued expenses and other current liabilities

Other current liabilities are non-derivative financial liabilities, which are initially recognized at fair value plus directly attributable transaction costs. Subsequently these financial liabilities are measured at amortized cost using the effective interest method.

In € thousands	Note	2019	2018
Accounts payable		279,367	235,545
Accrued expenses		41,353	40,698
Payables to employees		175,094	140,311
Taxes and social security contributions		81,163	81,311
After-payments relating to acquisitions	5	7,171	3,456
Payables to associates		669	639
Provisions for Expected Credit Loss on corporate guarantees	16	92,773	27,834
Other liabilities		59,258	79,463
Balance at 31 December		**736,848**	**609,257**

Of the total accounts payable approximately 49% is subject to a so-called 'paid-when-paid' clause (2018: 50%). The expectation is that all accounts payable will be paid within the normal course of business and are therefore classified as short-term liabilities. Further information about Arcadis' exposure to liquidity risk is included in note 31.

For further details on the provision for Expected Credit Loss on corporate guarantees see note 16.

Other liabilities include various accrued liabilities, such as to be paid occupancy costs, insurance costs and interest costs. Lease incentives ('tenant improvement allowances') received are in 2019 part of the right-of-use asset, whereby in 2018 these were reported as Accrued expense and other current liabilities. See also note 3 and 15.

31 Capital and financial risk management

Arcadis' activities expose the Company to a variety of financial risks, including (A) credit risks, (B) liquidity risks, and (C) market risks.

These risks are inherent to the way the Company operates as a multinational with locally operating subsidiaries. The Executive Board is responsible for the design and functioning of the internal risk management systems. The day-to-day risk management activities related to the financial risk management are carried out by Arcadis Group Treasury, in line with the guiding principles of the Group Treasury Policy, as approved by the Executive Board.

Arcadis' Audit and Risk Committee oversees how management monitors compliance with the Company's risk management policies and procedures, and the Arcadis control framework. It also reviews the adequacy of the risk management framework in relation to the risks faced by the Company.

(A) Credit risks

Credit risk arises from receivables from customers as well as cash balances and fair values of derivatives with financial counterparties (e.g. banks). The credit risk on customers is influenced mainly by the individual characteristics of each customer. Arcadis usually invoices clients for services according to the progress of the work. If clients refuse or are unable to meet their contractual payment obligations, the Company may not have sufficient cash to satisfy its liabilities and its growth and continued operations could be adversely impacted.

The key objective of the Company's counterparty risk management is to minimize the risk of losses as a result of failure of an individual financial counterparty that could negatively impact the Company's results. Arcadis aims to centralize cash balances with banks that have also provided committed credit facilities to the Company in order to reduce this counterparty risk.

The exposure to credit risk is monitored on an ongoing basis at local entity and at group level. Normally Arcadis only deals with counterparties that have a sufficiently strong credit rating. Where possible, Arcadis uses credit ratings provided by external credit rating agencies, thus monitoring creditworthiness in order to manage the related credit risk. Furthermore, Arcadis strongly focuses on clients by strengthening the commercial relationship and being more selective to which clients services are offered. Through systematic account management we aim to build long-term relationships with selected multinational and key national/local clients We already have a relationship with the majority of our multinational clients for more than five years. New customers are analysed individually for creditworthiness before services are offered and monitored regularly.

The carrying amount of financial assets represents the maximum credit exposure. At balance sheet date, the maximum exposure to credit risk was:

In € thousands	Note	2019	2018
Financial assets:			
Trade receivables	20	602,900	583,740
Contract assets (unbilled receivables)	21	669,849	545,492
Other receivables	23	21,822	26,242
Other non-current assets	19	27,595	26,548
Derivatives	18	7,491	11,695
Loans to associates and joint ventures	16	–	–
		1,329,657	**1,193,717**
Cash and cash equivalents less bank overdrafts	24	296,423	240,680
Total		**1,626,080**	**1,434,397**

Trade receivables

Trade receivables are presented net of a provision for expected credit losses. The credit risk is measured and analyzed on a local level at regular intervals, taking into consideration, amongst others, the financial situation of the debtor and ageing of receivables.

Expected losses are determined in line with IFRS 9, see note 20.

The ageing of Trade receivables and the provision for Trade receivables at reporting date is disclosed below and in note 20. The ageing of receivables has led to the recognition of (expected) credit losses and calibration of assumptions as included in the Goodwill impairment test.

The movement schedule for the provision for Trade receivables is included in note 20.

	2019			2018		
In € thousands	Gross Receivables	Provision bad debt	Provision ECL	Gross Receivables	Provision bad debt	Provision ECL
Not past due	381,034	(4,155)	(357)	324,533	(2,348)	(301)
Past due 0-30 days	102,464	(1,076)	(75)	106,072	(1,193)	(60)
Past due 31-60 days	39,828	(550)	(41)	48,280	(475)	(23)
Past due 61-120 days	27,195	(599)	(49)	37,481	(1,055)	(37)
Past due 121-364 days	47,489	(6,201)	(78)	49,566	(7,661)	(78)
More than 364 days due	63,969	(47,089)	(85)	77,503	(47,713)	(253)
Total	**661,978**	**(59,668)**	**(685)**	**643,435**	**(60,445)**	**(753)**

There are various reasons for delays in payments that result in past due amounts and that impact Days Sales Outstanding (DSO). Arcadis has overdue receivables which are generally considered collectible and for which the risk of impairment is remote. Especially for our larger projects the following areas are addressed in our ongoing Working Capital program as part of the Arcadis Way:

- Customers may uphold payments that are due in accordance with invoicing timing schedules until a further milestone in a project is reached, thereby not formally adhering to agreed payment schedules but not disputing the invoice.
- Receivables on larger projects often consist of multiple elements of which individual minor items may be disputed, require further clarification or documentation and that delays the payment of the total invoiced amount.
- As business practice, or as part of our contracts, it is common that when Arcadis is a sub-contractor, we only get paid when our customers get paid by the ultimate client - the so called ‘paid-when-paid principle’.

Amounts due at 31 December 2019 subject to the ‘paid-when-paid principle’ are disclosed in note 20. Further details on how Arcadis uses this principle to manage working capital is disclosed in the section on liquidity risk.

Other receivables and non-current assets
Other receivables and Other non-current assets are monitored for expected credit losses. They do not contain impaired assets and are not past due.

Loans to associates and joint ventures
Loans to associates and joint ventures are subject to credit risk. A loss has been recognized in 2019 on the loans to Arcadis Logos Energia S.A. (ALEN), see note 16 for further details.

Cash and cash equivalents
The credit risk of Cash and cash equivalents is the risk that counterparties are not able to repay amounts owed to Arcadis upon request of Arcadis. The objective of the Company is to minimize credit risk exposure in Cash and cash equivalents by investing in liquid securities and entering into transactions involving derivative financial instruments only with counterparties that have sound credit ratings, a good reputation and belong to the group of Core banks. The related risk is monitored on an ongoing basis both at local entity and group level. The Company keeps approximately 86% (2018: 82%) of its cash reserves at our Core banks and only invests in liquid securities with counterparties that have an investment grade rating from Standard & Poor's, Moody's or Fitch. Management monitors these ratings and does not expect any such counterparty to fail to meet its obligations in the short-term.

Guarantees and letters
On behalf of the Company and local entities, financial institutions (such as banks and insurance companies) have provided bank guarantees, surety bonds and letters of credit amounting to €144.6 million outstanding as at 31 December 2019 (2018: €174.5 million). In addition, Arcadis NV has provided financial guarantees to banks for a maximum amount of €265.9 million. See note 16 for further details on the guarantees provided by Arcadis to the lenders of Arcadis Logos Energia S.A. (ALEN) and the related Expected Credit Loss. No Expected Credit Loss is recognized on other guarantees.

(B) Liquidity risks
Liquidity risk is the risk that Arcadis will not be able to meet its financial obligations as they fall due. The primary objective of liquidity management is providing for sufficient cash and cash equivalents to enable Arcadis to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to Arcadis. Our Group Treasury Policy supports this principle by stating that the Company aims to have no more than 33% of total fixed debt to be refinanced in any one year and that the minimal liquidity at any given point in time should always exceed €200.0 million.

Neither the aged (un)billed receivables of individual customers, nor the profile customer receivable portfolio of CGUs, impose a significant threat to the Company's liquidity planning.

Over the course of the year, fluctuations occur in the working capital needed to finance operations. The Company strives to have a good liquidity position at all times, strictly controlling working capital by optimizing billing and collection and consequently maintaining a healthy (lease-adjusted) interest coverage and net debt to EBITDA ratio.

To manage working capital, but only if legally allowed and commercially possible, Arcadis agrees with part of its sub-contractors so-called 'paid-when-paid' clauses. This means that Arcadis is in such instances better able to match the cash inflows from debtors with the related cash outflows to suppliers, as the timing of the payment of the supplier is dependent on the collection of our receivable from a client. This could however be impacted by contractual clauses and/or local laws and regulations that limit the maximum extension of payment terms to a moment before Arcadis gets paid by its client. In case of non-payment by the debtor, Arcadis still has to fulfil its obligations towards the supplier under a 'paid-when-paid' clause. Accounts payable at 31 December 2019 subject to the 'paid-when-paid principle' are disclosed in note 30. The expectation is that all accounts payable will be paid within the normal course of business and are therefore classified as short-term liabilities.

Lines of credit

The Company maintains the lines of credit as summarized in the table below.

In millions					31 December 2019				31 December 2018
Type	Interest/fees		Available		Utilized		Available		Utilized
		USD	EUR	USD	EUR	USD	EUR	USD	EUR
Term loan	USD LIBOR	US$87.5	€78.0	US$87.5	€78.0	US$202.5	€176.9	US$202.5	€176.9
Term loan	EURIBOR		€25.0		€25.0		€24.5		€24.5
Revolving Credit Facility	EURIBOR		€300.0		–		€300.0		–
Revolving Credit Facility	USD Libor	US$115.0	€102.5	US$115.0	€102.5	–	–	–	–
Committed facilities	EURIBOR		€35.0		–		€35.0		–
Uncommitted multi-currency facilities	Floating		€97.3		€17.0		€120.8		–
US Private Placement notes	5.1%	US$110.0	€98.0	US$110.0	€98.0	US$110.0	€96.1	US$110.0	€96.1
Schuldschein notes	Fixed/floating		€210.0		€210.0		€210.0		€210.0
Schuldschein notes	Fixed/floating	US$83.0	€74.0	US$83.0	€74.0	US$83.0	€72.5	US$83.0	€72.5
Guarantee facility	0.30% - 0.65%		€73.2		€39.0		€61.6		€31.5
Other (loans)	Various		€83.1		€1.7		€77.6		€3.10
Other (bank guarantees and surety bonds)	Various		€148.3		€105.7		€177.5		€143.0

An amount of US$202.5 million and €24.5 million of committed Term Loans were to mature in June and September 2019. The process to refinance this debt was finalized end of January 2019 by signing a new credit facility agreement for the following:

- US$87.5 million Term Loan with a maturity in 2024
- €25 million Term Loan with a maturity in 2024
- US$115 million Revolving Credit Facility (RCF) with an initial maturity in 2024 (with two one-year extension options, of which the first one has been executed in December 2019, extending the maturity to 2025).

The refinancing resulted in the US$202.5 million and €24.5 million of committed Term Loans being derecognized from the balance sheet. Cash received from the new Term loans and Revolving Credit Facility are shown in the Consolidated cash flow statement and the movement schedule as new loans and borrowings.

Contractual obligations

The following tables describe our commitments and contractual obligations for the following five years and thereafter. The other long-term debt obligations are the debt service obligations.

No collateral has been pledged for liabilities or contingent liabilities.

In € thousands	Total	< 1 year	1 - 3 years	4 - 5 years	> 5 years
Contractual obligations at 31 December 2019:					
Guarantees on behalf of associates	92,773	92,773	–	–	–
Off balance sheet lease commitments	763	763	–	–	–
Foreign exchange contracts:					
Outflow	508,855	508,855	–	–	–
Inflow	(507,877)	(507,877)	–	–	–
Interest rate swaps:					
Outflow	664	316	348	–	–
Inflow	(381)	(199)	(182)	–	–
Cross Currency swaps:					
Outflow	51,982	1,848	3,708	46,426	–
Inflow	(44,089)	(1,018)	(2,047)	(41,024)	–
Deferred consideration	11,931	7,171	4,759	–	–
Interest	48,612	17,018	21,993	9,601	–
Lease liabilities	332,854	83,742	117,558	59,749	71,805
Other long-term liabilities	460,583	–	215,199	245,384	–
Short-term bank debt	17,000	17,000	–	–	–
Accounts payable	279,367	279,367	–	–	–
Total	**1,253,037**	**499,760**	**361,336**	**320,136**	**71,805**
Contractual obligations at 31 December 2018:					
Operating lease obligations	356,180	82,367	127,175	68,135	78,503
Capital (finance) lease obligations	–	–	–	–	–
Guarantees on behalf of associates	87,137	87,137	–	–	–
Foreign exchange contracts:					
Outflow	1,002,797	1,002,797	–	–	–
Inflow	(1,005,722)	(1,005,722)	–	–	–
Interest rate swaps:					
Outflow	1,060	396	548	116	–
Inflow	(529)	(222)	(259)	(48)	–
Cross Currency swaps:					
Outflow	53,852	1,864	3,708	48,280	–
Inflow	(45,118)	(1,029)	(2,042)	(42,047)	–
Deferred consideration	8,624	3,456	5,168	–	–
Interest	33,163	16,736	15,929	1,673	(1,175)
Other long-term liabilities	582,954	202,163	226,703	154,088	–
Short-term bank debt	–	–	–	–	–
Accounts payable	235,545	235,545	–	–	–
Total	**1,309,943**	**625,488**	**376,930**	**230,197**	**77,328**

(C) Market risks

Market risk includes currency risk (C1) and interest rate risk (C2) and comprises the risk that changes in market prices, such as foreign exchange rates and interest rates will affect Arcadis' income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters set by the Group Treasury policy.

(C) Currency risks

The key objective of the Company's foreign exchange transaction exposure management is aimed at the active management of foreign exchange exposures by Group Treasury to reduce and limit the adverse effects of exchange rate changes on the Company's profitability.

Trade and financing transactions in non-functional currencies

The subsidiaries of Arcadis mainly operate in local markets, and as such both sales invoices and purchase invoices are mainly denominated in local currencies. In some instances, however, invoices are in the functional currency of the counterparty, which results in a currency exposure for the subsidiary. The exposure to foreign exchange risk on sales and costs denominated in another currency than the respective functional currencies of the subsidiaries is very limited. Only in limited cases e.g. for material transactions, the subsidiaries of Arcadis enter into forward foreign exchange contracts in order to hedge these transaction risks.

Interest on borrowings is denominated in currencies that match the cash flows generated by the underlying operations of the Company, primarily Euro and US dollar.

The Company has an exposure to positions in the Consolidated balance sheet in foreign currencies which are different than respective functional currencies of the subsidiaries. For the main currencies the following positions per currency (translated in euros) were included in the Consolidated balance sheet. The exposure at 31 December 2019 includes the lease liabilities based on IFRS 16; the exposure at 31 December 2018 excludes operating leases.

In € thousands	in EUR	in USD	in GBP	in CNY	in BRL	in AED
At 31 December 2019						
Trade receivables	4,049	14,438	935	1,420	–	325
Cash and cash equivalents	1,390	33,143	11,425	1,083	–	1,581
Derivatives	25,000	(26,415)	27,878	(6,065)	(5,475)	(15,259)
Loans and borrowings	(25,000)	5,787	(21,666)	6,747	5,628	14,203
Accounts payable	(1,120)	(8,354)	(502)	(192)	–	–
Lease liabilities	(94,401)	(118,913)	(20,349)	(87,462)	(2,714)	(13,423)
Balance exposure	**(90,082)**	**(100,314)**	**(2,279)**	**(84,469)**	**(2,561)**	**(12,573)**
At 31 December 2018						
Trade receivables	3,576	36,789	2,654	1,620	–	1,460
Cash and cash equivalents	1,923	30,138	1,151	1,639	–	–
Derivatives	24,453	111,881	69,641	(5,208)	(3,984)	(28,035)
Loans and borrowings	(24,453)	(108,309)	(67,486)	3,078	4,033	30,945
Accounts payable	(1,876)	(20,215)	(2,561)	(211)	–	–
Balance exposure	**3,623**	**50,284**	**3,399**	**918**	**49**	**4,370**

The below exchange rates were applied in the year.

	2019		2018	
In €	Average	Year-end	Average	Year-end
US Dollar (US$)	0.89	0.89	0.85	0.87
Pound Sterling (GBP)	1.14	1.18	1.13	1.11
Chinese Yuan Renminbi (CNY)	0.13	0.13	0.13	0.13
Brazilian Real (BRL)	0.23	0.22	0.23	0.23
United Arab Emirates Dirham (AED)	0.24	0.24	0.23	0.24

Arcadis uses derivatives in order to manage market risks associated with changes in foreign exchange rates as well as interest rates. All transactions are carried out in accordance with the Group Treasury policy. The Company seeks to apply hedge accounting where possible to manage volatility in profit or loss. Most foreign exchange forward transactions outstanding at year-end are due to mature in 2020.

Sensitivity analysis currency risks
Foreign currency sensitivity analyses are performed by applying an expected possible volatility of a currency, assuming all other variables, in particular interest rates, remain constant. All monetary assets and liabilities of the Company at year-end are revalued, which results in a hypothetical impact on net income and equity as summarized below.

In €	2019 Impact on net income	2019 Impact on equity	2018 Impact on net income	2018 Impact on equity
10% change euro against the US dollar	2.3	40.3	2.1	46.9
10% change euro against the Pound Sterling	1.7	49.0	1.9	76.8
10% change euro against the Brazilian Real	0.4	2.5	0.3	7.8

All material balance sheet positions have been hedged with foreign exchange contracts. The translation risk relating to subsidiaries with a functional currency other than group reporting currency of Euro are not hedged.

(C2) Interest rate risks

The Company manages interest rate risks by financing fixed assets and part of current assets with shareholders' equity and long-term debt. The remainder of current assets is financed with short-term debt including revolving bank credits with variable interest rates. Based on our interest risk profile, financial instruments were outstanding during the year to cover part of the interest rate risk on long-term borrowings. This risk is applicable to long-term debt, short-term debt and bank overdrafts in the Consolidated balance sheet amounting to €606.7 million at year-end 2019 (2018: €583.2 million).

The Company has €81.5 million of floating to fixed interest rate swaps with a fixed rate of approximately 0.5% and these will mature between 2020 and 2022.

The Company has €40.0 million of fixed to floating cross currency swaps to manage currency risk and interest rate risk in accordance with the Group Treasury Policy.

The Group Treasury Policy states that the fixed portion of net debt should be at least 40% to protect against increases in interest rates as well as providing some certainty on expectations for interest expense in profit or loss. Arcadis has been compliant with this aspect of the Group Treasury Policy during 2019.

Sensitivity analysis Interest rate risk
Interest rate sensitivity analyses are performed by applying an expected possible volatility of interest rates, assuming all other variables remain constant. All interest-bearing liabilities of the Company at year-end are revalued, which results in a hypothetical impact on the pre-tax profit for the year and equity as summarized below.

In €	2019 Impact of pre-tax profit for the year	2019 Impact on equity	2018 Impact of pre-tax profit for the year	2018 Impact on equity
Ten basis-points change to interest rate	0.1	0.1	0.1	0.1

Capital risk management

Arcadis' objectives when managing capital are to safeguard Arcadis' ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure that optimizes its cost of capital.

The Company sets the amount of capital in proportion to its risk appetite. The Company manages the capital structure and makes adjustments to it based on changes in economic conditions and the risk characteristics of the underlying assets. The capital structure can be altered by adjusting the amount of dividends paid to shareholders, return capital to shareholders, or issue new debt or shares. From time to time, Arcadis purchases its own shares, which are used as volume hedges for the transfer of shares under Arcadis' long-term incentive plans.

Consistent with the debt covenants agreed with the banks, the Company monitors capital on the basis of the average Net Debt to EBITDA ratio. This ratio is calculated as interest- bearing debt minus cash and cash equivalents divided by EBITDA. EBITDA is calculated as earnings before interest, tax, depreciation and amortization. Both Net Debt and EBITDA are lease-adjusted.

There were no changes in Arcadis' approach to capital management during the year. The Company and its subsidiaries are not subject to external capital requirements, other than debt covenants as disclosed in the notes to these financial statements.

During 2019, Arcadis' strategic goal on financing, which was unchanged from 2018, was to maintain a net debt to EBITDA ratio not exceeding 2.0 in order to secure access to finance at a reasonable cost. The financing goal is to maintain a net debt to EBITDA ratio of 1.0 - 2.0 times.

Financial covenants

Financial covenants set under the contracts of the committed credit facilities that are applicable to Arcadis include the Total Leverage ratio (maximum 3.0) and the lease-adjusted Interest Coverage ratio (minimum 1.75). These ratios are included in the next table, whereby 2018 is not restated for IFRS 16.

In € millions	Note	31 December 2019	31 December 2018
Long-term loans and borrowings	29	460.6	386.1
Current portion of loans and borrowings	29	150.2	202.2
Lease liabilities	15	215.5	–
Current portion of lease liabilities	15	75.7	–
Bank overdrafts	24	0.5	0.1
Total debt		**902.5**	**588.4**
Less: cash and cash equivalents	24	(296.9)	(240.8)
Net debt		**605.6**	**347.6**
Less: lease liabilities	15	(291.2)	–
Less: non-current portion deferred consideration	5	(4.8)	(5.2)
Net debt according to debt covenants		**309.6**	**342.4**
EBITDA according to debt covenants[1]		**238.8**	**205.8**

[1] EBITDA adjusted for share-based compensation and acquisition effects, in accordance with debt covenants. Non-GAAP performance measure, to provide transparency on the underlying performance of our business (reference is made to the Glossary Financial & Non-Financial indicators on pages 277 for the definition as used by Arcadis)

Ratios

In €	2019	2018
Net debt to EBITDA[1] (at year-end net debt)	1.3	1.7
Net debt to EBITDA[1] ratio according to debt covenants (at average net debt, Total Leverage Ratio)	1.4	2.0
EBITDA to relevant Net finance expense ratio (lease - adjusted interest 'coverage ratio)	2.7	2.6

[1] Non-GAAP performance measure, to provide transparency on the underlying performance of our business (reference is made to the Glossary Financial & Non-Financial indicators on pages 277 for the definition as used by Arcadis)

The ratios as disclosed above are calculated based on the definition as agreed with and aligned between the different providers of committed credit facilities. The calculation of the average net debt to EBITDA ratio is based on the average net debt of Q2 and Q4. Throughout 2019, Arcadis complied with all financial covenants.

Going concern assumption

Management has assessed the going concern assumption. A sensitivity analysis has been performed, taking into account amongst others the full recognition of the Expected Credit Loss provision on the corporate guarantees issued in favour of ALEN (see note 16) and the current plans and cash flow forecasts. This sensitivity analysis resulted in the conclusion that there is no material uncertainty related to events and conditions that may cast significant doubt on the Company's ability to continue as a going concern.

Fair value

The fair values of financial assets and liabilities together with the carrying amounts recognized in the Consolidated balance sheet, are as follows:

			Carrying value per IFRS 9 category				
In € thousands	Carrying amount	Out of Scope IFRS 7	Amortized cost	Fair value through Profit or Loss	Fair value through Other comprehensive income	**Total**	Fair value
At 31 December 2019							
Investments in associates and joint ventures	7,528	7,528	–	–	–		
Other investments	2,280	–	–	2,280	–	2,280	2,280
Other non-current assets	27,595	–	27,595	–	–	27,595	27,595
(Un)billed receivables:							
Trade receivables	602,900	–	602,900	–	–	602,900	602,900
Contract assets (unbilled receivables)	669,849	–	669,849	–	–	669,849	669,849
Derivatives	7,492	–	–	8,377	(885)	7,492	7,492
Cash and cash equivalents	296,895	–	296,895	–	–	296,895	296,895
Total Financial assets	**1,614,539**	**7,528**	**1,597,239**	**10,657**	**(885)**	**1,607,011**	**1,607,011**
Loans and borrowings:							
Non-current	460,583	–	460,583	–	–	460,583	461,573
Current	150,206	–	150,206	–	–	150,206	149,563
Derivatives	5,479	–	–	5,479	–	5,479	5,479
Contract liabilities (billing in excess of revenue)	285,044	–	285,044	–	–	285,044	285,044
Provision for onerous contracts (loss provisions)	90,545	–	90,545	–	–	90,545	90,545
Accounts payable	279,367	–	279,367	–	–	279,367	279,367
Lease liabilities	291,122	–	291,122	–	–	291,122	291,122
Deferred consideration	11,931	–	–	11,931	–	11,931	11,931
Bank overdrafts and short-term bank debts	472	–	472	–	–	472	472
Total Financial liabilities	**1,574,749**	**–**	**1,557,339**	**17,410**	**–**	**1,574,749**	**1,575,096**

Consolidated financial statements

In € thousands	Carrying amount	Out of Scope IFRS 7	Carrying value per IFRS 9 category: Amortized cost	Fair value through Profit or Loss	Fair value through Other comprehensive income	Total	Fair value
At 31 December 2018							
Investments in associates and joint ventures	7,756	7,756	–	–	–	–	–
Other investments	637	–	–	637	–	637	637
Other non-current assets	26,548	–	26,548	–	–	26,548	26,548
(Un)billed receivables:							
Trade receivables	583,740	–	583,740	–	–	583,740	583,740
Contract assets (unbilled receivables)	545,492	–	545,492	–	–	545,492	545,492
Derivatives	11,695	–	–	12,069	(374)	11,695	11,695
Cash and cash equivalents	240,815	–	240,815	–	–	240,815	240,815
Total Financial assets	**1,416,683**	**7,756**	**1,396,595**	**12,706**	**(374)**	**1,408,927**	**1,408,927**
Loans and borrowings:							
Non-current	386,061	–	386,061	–	–	386,061	386,066
Current	202,163	–	202,163	–	–	202,163	201,370
Derivatives	10,729	–	–	10,459	270	10,729	10,729
Contract liabilities (billing in excess of revenue)	255,581	–	255,581	–	–	255,581	255,581
Provision for onerous contracts (loss provisions)	115,643	–	115,643	–	–	115,643	115,643
Accounts payable	235,545	–	235,545	–	–	235,545	235,545
Deferred consideration	8,624	–	–	8,624	–	8,624	8,624
Bank overdrafts and short-term bank debts	135	–	135	–	–	135	135
Total Financial liabilities	**1,214,481**	**–**	**1,195,128**	**19,083**	**270**	**1,214,481**	**1,213,693**

Fair value hierarchy

The financial instruments carried at fair value are analysed by valuation method, using the following levels:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2: inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and
- Level 3: inputs for the assets or liability that are not based on observable market data (unobservable inputs).

All financial instruments carried at fair value within the Company are categorized in Level 2, except for the other investment in Techstars and the deferred consideration whereby a Level 3 valuation has been used (see note 17).

The fair value of forward exchange contracts is based on quoted market prices at the balance sheet date, being the present value of the quoted forward price. Those quotes are tested for reasonableness by discounting estimated future cash flows based on the term and maturity of the contract, using market interest rates.

The fair value of interest rate swaps is calculated by discounting estimated future cash flows based on the terms and maturity of each contract and using market interest rates for a similar instrument at measurement date. These calculations are tested for reasonableness by comparing them with bank valuations.

The fair value of loans and receivables is based on the present value of future principal and interest cash flows, discounted at the Company specific market rate of interest at reporting date. For financial leases the market rate of interest is determined by reference to similar lease agreements.

The fair value of trade and other receivables is estimated as the present value of future cash flows, discounted at the market rate of interest at reporting date. Due to the short-term character of the receivables, the fair value equals the carrying value.

32 Commitments and contingent liabilities

Committed lease payments for short-term and/or low-value leases are reported as off balance sheet commitment. The lease payments (excluding costs for services such as insurance and maintenance, which are expenses as incurred) are recognized as an expense on a straight-line basis unless another systemic basis is representative of the time pattern of the user's benefit, even if the payments are not on that basis.

Non-financial guarantees are accounted for as a contingent liability until such time it becomes probable that the Company will be required to make a payment under the guarantee. Financial guarantees are subject to the Expected Credit Loss model, and a credit loss is recognized for expected cash shortfalls.

Contingent liabilities are possible or present obligations of sufficient uncertainty that it does not qualify for recognition as a provision (see note 28), unless it is assumed in a business combination (see note 5). Contingent liabilities are reviewed continuously to assess whether an outflow of resources has become probable.

Summary of commitments

In € thousands	31 December 2019	31 December 2018
Bank guarantees	144,623	174,475
Corporate guarantees	265,877	234,942
Eliminations	(189,629)	(96,377)
Guarantees	**220,871**	**313,040**
Leases	763	356,180
Other commitments	17,733	21,541
Total	**239,367**	**690,761**

Leases

In € thousands	31 December 2019
Short-term leases	699
Low-value leases	64
Total committed off-balance leases	**763**

The Group's lease arrangements mainly relate to contracts for leased cars, building and other (IT) equipment. These leases have varying terms, termination clauses and renewal rights. For leased assets the Group has recognized right-of-use assets and lease liabilities as at 31 December 2019, except for short-term and/or low-value leases. The lease expense recognized in profit or loss of 2019 relating to short-term and/or low-value leases amounted to €5.3 million.

See note 15 for further information on leases.

Guarantees

Arcadis has issued corporate guarantees as security for credit facilities, bank guarantee facilities and surety bond lines. Bank guarantees and surety bonds are, amongst others, issued in relation to projects, advances received, tender bonds or lease commitments to avoid cash deposits. Bank guarantees or surety bonds issued for project performance can be claimed by clients where Arcadis fails to deliver in line with the agreed contract. In such cases, the liability of the bank should be no greater than the original liability on Arcadis and where the failure to perform arose due to an error or omission by Arcadis, the claim could be covered by the professional indemnity insurance cover.

The tables below summarize the outstanding corporate and bank guarantees. They reflect only items that have been drawn or utilized that are not already shown on the balance sheet. In 2019, an additional expected credit loss provision has been recognized for the full amount of the outstanding corporate guarantees relating to the associate Arcadis Logos Energia S.A. (ALEN) (see note 16).

In € millions	Corporate guarantees	Bank guarantees	Eliminations[1]	Total
Debt facility financing	102.2	–	(94.6)	7.6
Bank guarantee financing	151.7	144.6	(83.3)	213.0
Other	12.1	–	(11.7)	0.4
Balance at 31 December 2019	**266.0**	**144.6**	**(189.6)**	**221.0**

[1] To avoid double-counting and the overstatement of contingent obligations, only one instance of any off-balance sheet item is reported, e.g. if Arcadis NV has provided a corporate guarantee for a local bank guarantee facility, any claim for payment by a client on an outstanding bank guarantee can only be honored once. Included in these eliminations is also the liability already recognized for the expected credit loss on the guarantees issued in relation to ALEN (see note 16)

In € millions	Corporate guarantees	Bank guarantees	Eliminations[1]	Total
Debt facility financing	129.2	–	(30.4)	98.8
Bank guarantee financing	93.7	174.5	(53.9)	214.3
Other	12.1	–	(12.1)	–
Balance at 31 December 2018	**235.0**	**174.5**	**(96.4)**	**313.0**

[1] To avoid double-counting and the overstatement of contingent obligations, only one instance of any off-balance sheet item is reported, e.g. if Arcadis NV has provided a corporate guarantee for a local bank guarantee facility, any claim for payment by a client on an outstanding bank guarantee can only be honored once. Included in these eliminations is also the liability already recognized for the expected credit loss on the guarantees issued in relation to ALEN (see note 16)

The vast majority of outstanding bank guarantees and surety bonds relates to the commercial performance on projects (e.g. Performance guarantees, Tender bonds, Warranty bonds or Advance payment guarantees) and rental guarantees. On 31 December 2019 and throughout the year, the vast majority of the outstanding bank guarantees and surety bonds posed an immaterial and insignificant risk to Arcadis.

The increase in corporate guarantees is due to increased corporate guarantees for surety bond lines, debt facilities and exchange rate differences. On 31 December 2019, only a part of the local bank guarantee facilities and local debt facilities have been used.

Other commitments

The other commitments include the service part of a long-term global IT outsourcing contract, which runs for a remaining period of one year.

Contingent liabilities

Litigation

The Company is involved in various legal and regulatory claims and proceedings as a result of its normal course of business, either as plaintiff or defendant. Management ensures that these cases are firmly defended. In some of these proceedings, claimants allegedly claim amounts for project contract breaches that are significant to the Consolidated financial statements.

All legal and regulatory claims and proceedings are assessed on a regular basis. In consultation with in-house and external legal counsels, management regularly evaluates facts and circumstances of those claims and, based on the analysis of possible outcomes of litigation and settlements, provisions are accrued for. Provisions are accrued for only where management believes it is probable that Arcadis will be held liable, the amount is reasonably estimable, and the claim has not been insured. These provisions are reviewed periodically and adjusted if necessary, to the extent that cash outflow of related proceedings is probable, including defense costs and reimbursements by our insurance policies.

Since the ultimate disposition of asserted claims and proceedings cannot be predicted with certainty, final settlement can differ from this estimate and could require revisions to the estimated provision, which could have a material adverse effect on the Company's balance sheet, profit or loss, and cash flows for a particular period.

Tax

Arcadis operates in a high number of jurisdictions, and is subject to a variety of taxes per jurisdiction.
Tax legislation can be highly complex and subject to changes and interpretation. Therefore Arcadis is exposed to varying degrees of uncertainty and significant judgement is required in determining the global tax position. The Company accounts for its income taxes on the basis of its own internal analyses supported by external advice. The Company continually monitors its global tax position including changes in tax laws or interpretations of such laws. Whenever uncertain tax positions arise, the Company assesses the potential consequences and recognizes liabilities depending on the strength of the Company's position and the resulting risk of loss.

33 Related party transactions

A related party is a person or an entity that is related to the Group. These include both people and entities that have, or are subject to, the influence or control of the Group (e.g. key management personnel). Transactions with related parties are accounted for in accordance with the requirements of relevant IFRSs and take into account the substance as well as the legal form.

General

The related parties of the Company comprise subsidiaries, jointly controlled entities, associates, temporary partnerships, Stichting Lovinklaan, Stichting Bellevue, Stichting Prioriteit Arcadis NV, Stichting Preferente Aandelen Arcadis NV, the members of the Executive Board, the Executive Leadership Team and the Supervisory Board.

In accordance with article 2:379 and 414 of the Dutch Civil Code, the list of subsidiaries, joint ventures, and associates is filed with the Chamber of Commerce in Amsterdam.

Transactions with subsidiaries

The financial transactions between the Company and its subsidiaries comprise operational project related transactions, financing transactions and other transactions in the normal course of business activities. Transactions within the Group are not included in these disclosures as these are eliminated in the Consolidated financial statements.

Transactions with joint arrangements

The Group has entered into transactions on an arm's length basis through joint arrangements during the year 2019. Total revenues from joint arrangements amounted to €180.9 million (2018: €166.0 million).

Transactions with associates

The Group has entered into transactions with associates, see note 16 and the table on page 247.

Transactions with key management personnel

The table below specifies the total remuneration of key management personnel, for the period that they met the criteria, and for remuneration received in the capacity of key management personnel. This includes the Supervisory Board members.

For the composition of the Executive Board, Executive Leadership Team and Supervisory Board in 2019 see pages 136, 137, 138 and 139.

In € thousands	2019	2018[1]
Salary	4,814	3,348
Bonus	1,943	1,462
Pension compensation	376	515
Pension	207	74
LTIP expense	3,122	2,318
Termination benefit	164	461
Total	**10,626**	**8,178**

[1] In March 2018 the Executive Leadership Team was introduced. Remuneration in table covers the period that members qualified as key management personnel

In 2019 (and 2018) no transactions involving conflicts of interest for key management personnel occurred which were material to the Company. In addition, the Company has not granted any loans, advances or guarantees to key management personnel.

Transactions with post-employment benefit plans

The main post-employment benefit plans are the pension funds of EC Harris (ECH) and Hyder (AGPS). In 2019 the Company contributed €2.2 million (2018: €2.1 million) to the plan of EC Harris, €2.3 million to the plan of Hyder (2018: €2.5 million), and €3.2 million to other defined benefit plans (2018: €4.5 million), see note 27.

Transactions with Lovinklaan Foundation

Stichting Lovinklaan (Lovinklaan Foundation) is one of the main shareholders of Arcadis. The board of the Foundation consists of Arcadis employees. The Foundation had an interest of 18.2% in Arcadis NV at 31 December 2019 (2018: 18.2%).

The Foundation has an Employee Stock Purchase Plan/Global Share Plan in place, which allows Arcadis employees to purchase Arcadis shares from the Foundation with a discount. The costs associated to this amounted to €1.3 million in 2019 (2018: €1.7 million), see note 9. The Company is not involved in executing the plan, besides processing payments from employees to the foundation through the salary system of the Company.

Other contributions made by the Lovinklaan Foundation in 2019 to Arcadis related to the following programs:

- Shelter: €0.4 million (2018: (2018: €0.4 million);
- Quest: €0.3 million (2018: (2018: €0.8 million);
- Global Shapers: €0.4 million (2018: €0.4 million);
- Local Sparks: €0.1 million (2018: nil);
- Roots of Arcadis: €0.1 million (2018: €0.1 million); and
- Expedition DNA: €0.8 million (2018: €0.4 million).

In 2019 (and 2018) no other financial transactions apart from the above mentioned took place between the Foundation and the Company, except for the dividends on the shares.

Transactions with other related parties

Arcadis NV contributed €50,000 to Stichting Preferente Aandelen Arcadis NV (the 'Preferred Stock Foundation') in 2019 (2018: €62,000) and €1,000 to Stichting Prioriteit Arcadis NV (the 'Priority Share Foundation') (2018: €1,000). See note 25 for further information on these foundations.

Summary

A summary of transactions with related parties (excluding Key Management Personnel) in the financial year is disclosed in the table below:

	Transactions with associates		Transactions with joint arrangements		Transactions with post-employee benefit plans		Other	
In € millions	2019	2018	2019	2018	2019	2018	2019	2018
Sales (to)	10.7	13.6	180.9	166.0	–	–	0.6	1.1
Purchase (from)	0.1	3.7	3.5	10.7	–	–	–	0.1
Loans (to)	17.5	31.8	–	–	–	–	–	–
Receivables (from)	0.7	1.5	11.5	13.0	–	0.2	0.1	0.4
Payables (to)	–	0.6	1.4	6.6	–	–	0.1	0.2
Impairment of loans (to)	17.5	31.8	–	–	–	–	–	–
Dividends received (from)	–	–	–	–	–	–	–	–
Provision for bad debts related to outstanding balances	–	0.1	0.6	1.1	–	–	–	–
Related expenses to these bad or doubtful debts	–	0.1	–	0.2	–	–	–	–
Provision for outstanding loan balances	–	–	–	–	–	–	–	–
Transfer of pension premiums and cost changes	–	–	–	–	4.0	21.5	–	–
Contributions	–	–	–	–	7.7	9.0	2.0	4.5

34 Events after the balance sheet date

A subsequent event is a favorable or unfavorable event, that occurs between the reporting date and the date that the financial statements are authorized for issue. Events after the reporting date that provide evidence of conditions that existed at the reporting date are adjusted within the financial statements. Events that are indicative of a condition that arose after the reporting date of a material size or nature are disclosed below.

The Company announced on 21 January 2020 the acquisition of Over Morgen, Dutch consultancy company with 80 employees focusing on solving various societal challenges by creating sustainable societies through an integrated approach that combines area development and energy transition.

There were no material subsequent events, that would have changed the judgement and analysis by management of the financial condition of the Company at 31 December 2019, or the result for 2019.

Company financial statements

of Arcadis NV

Company Balance sheet

as at 31 December - before allocation of profit

In € thousands	Note	2019	2018
Assets			
Non-current assets			
Intangible assets	39	57,780	55,857
Property, plant & equipment	40	773	855
Right-of-use assets	41	4,114	–
Investment in subsidiaries	42	1,221,614	1,358,526
Loans issued to subsidiaries and other investments	43	274,914	227,253
Deferred tax assets	47	2,592	679
Derivatives		–	–
Total Non-current assets		**1,561,787**	**1,643,170**
Current assets			
Derivatives		6,136	9,415
Receivables	44	209,306	244,154
Corporate income tax receivable		–	8,884
Cash and cash equivalents		44,572	18,570
Total Current assets		**260,014**	**281,023**
Total Assets		**1,821,801**	**1,924,193**

In € thousands	Note	2019	2018
Equity and liabilities			
Shareholders' equity			
Share capital		1,809	1,780
Share premium		372,472	372,501
Hedging reserve		(545)	(1,431)
Translation reserve		(48,418)	(82,191)
Other legal reserves		55,568	74,225
Retained earnings		569,323	603,737
Undistributed profits		12,302	(26,701)
Total Shareholders' equity	25, 45	**962,511**	**941,920**
Non-current liabilities			
Provisions	46	24,375	11,976
Deferred tax liabilities	47	–	–
Long-term debt	48	236,787	419,775
Lease liabilities	41	3,309	–
Derivatives		822	1,115
Total Non-current liabilities		**265,293**	**432,866**
Current liabilities			
Current portion of provisions	46	10,224	256
Derivatives		3,560	8,685
Bank overdrafts		472	–
Short-term borrowings		87,798	–
Current portion of lease liabilities	41	798	–
Corporate income tax payable		3,230	–
Current liabilities	49	487,915	540,466
Total Current liabilities		**593,997**	**549,407**
Total Equity and liabilities		**1,821,801**	**1,924,193**

The notes on pages 251 to 260 are an integral part of these Company financial statements

Company Income statement

for the year ended 31 December

In € thousands	Note	2019	2018
Corporate charges to subsidiaries	36	102,004	98,565
Total Corporate income		**102,004**	**98,565**
Personnel costs	54	(50,324)	(39,138)
Other operational costs	37	(21,558)	(21,122)
Depreciation and amortization	39, 40, 41	(7,991)	(4,447)
Total Operational costs		**(79,873)**	**(64,707)**
Operating income		**22,131**	**33,858**
Finance income		8,700	9,446
Finance expenses		(113,492)	(24,043)
Fair value change of derivatives		5,626	4,586
Net finance expense	38	**(99,166)**	**(10,011)**
Profit before income tax		**(77,035)**	**23,847**
Income taxes		(6,076)	177
Net income subsidiaries		95,413	(50,725)
Result for the period		**12,302**	**(26,701)**

The notes on pages 251 to 260 are an integral part of these Company financial statements

Notes to the Company financial statements

35 General

Unless stated otherwise, all amounts are rounded in thousands of euros. The Company financial statements have been prepared using the option of article 2:362 of the Dutch Civil Code, meaning that the accounting principles used are the same as for the Consolidated financial statements. Foreign currency amounts have been translated, assets and liabilities have been valued, and net income has been determined, in accordance with the principles of valuation and determination of income presented in note 2 of the Consolidated financial statements.

In the Company financial statements, subsidiaries of Arcadis NV are accounted for using the equity method. The presentation of the Balance sheet slightly deviates from the requirements of Dutch law (e.g. name conventions), in order to achieve optimal transparency between the Consolidated financial statements and the Company financial statements.

36 Corporate charges to subsidiaries

Corporate charges to subsidiaries include items such as headquarter support service fees, royalty fees, and license fees. It includes 'true–ups' for the previous year, which have been calculated and settled in 2019 following the final 2018 results.

37 Other operational costs

In € thousands	2019	2018
Occupancy	702	1,110
Travel	3,494	1,715
Office related	542	696
Audit and consultancy services	5,408	9,998
Insurances	671	519
Marketing and advertising	907	695
Other	9,834	6,389
Total	**21,558**	**21,122**

38 Net finance expense

The net finance expense includes income and expenses relating to intercompany loans and leases. Foreign exchange differences on financial liabilities and interest on leases are part of the finance expenses.

The finance expenses in 2019 were significantly impacted by expected credit losses on corporate guarantees.

39 Intangible assets

In € thousands	Software	Intangibles under development	Total
Cost	26,718	26,309	53,027
Accumulated amortization	(11,884)	–	(11,884)
At 1 January 2018	**14,834**	**26,309**	**41,143**
Additions	–	19,030	19,030
Reclassifications	3,199	(3,199)	–
Amortization charges	(4,316)	–	(4,316)
Movement 2018	**(1,117)**	**15,831**	**14,714**
Cost	29,917	42,140	72,057
Accumulated amortization	(16,200)	–	(16,200)
At 31 December 2018	**13,717**	**42,140**	**55,857**
Additions	–	9,025	9,025
Reclassifications	22,298	(22,298)	–
Amortization charges	(7,102)	–	(7,102)
Movement 2019	**15,196**	**(13,273)**	**1,923**
Cost	35,275	28,867	64,142
Accumulated amortization	(6,362)	–	(6,362)
At 31 December 2019	**28,913**	**28,867**	**57,780**

The Intangibles under development of €28.9 million (2018: €42.1 million) are mainly related to Software not yet in use. The reclassification to Software relates to the go–live of North America on Oracle mid–2019. Amortization charges in 2019 were higher than in 2018 due to this go–live, as well as due to accelerated amortization of part of the software licenses.

40 Property, plant & equipment

In € thousands	Furniture and fixtures
Cost	2,436
Accumulated depreciation	(1,754)
At 1 January 2018	**682**
Additions	304
Acquisitions of subsidiaries	–
Disposals	–
Depreciation charges	(131)
Movement 2018	**173**
Cost	2,740
Accumulated depreciation	(1,885)
At 31 December 2018	**855**
Additions	56
Acquisitions of subsidiaries	–
Disposals	–
Depreciation charges	(138)
Movement 2019	**(82)**
Cost	1,730
Accumulated depreciation	(957)
At 31 December 2019	**773**

41 Right-of-use assets and lease liabilities

Amounts recognized in the Company balance sheet

Right-of-use assets

In € thousands	Leased land and buildings	Leased (IT) equipment	Leased vehicles	**Total**
Balance at 1 January 2019	**2,372**	**111**	**367**	**2,850**
Additions	–	–	173	173
Depreciation	(608)	(28)	(115)	(751)
Remeasurements	1,909	–	(67)	1,842
Balance at 31 December 2019	**3,673**	**83**	**358**	**4,114**

Lease liabilities

In € thousands	Lease liabilities
Balance at 1 January 2019	**2,850**
Additions	172
Payments of lease liabilities	(780)
Remeasurements	1,843
Interest	22
Exchange rate differences	–
Balance at 31 December 2019	**4,107**
Current	798
Non–current	3,309
Total	**4,107**

Amounts recognized in the Company income statement

In € thousands	2019
Depreciation	752
Interest expense (included in Net finance expense)	22
Other operational costs for short-term leases	60
Other operational costs for low-value leases	–
Other operational costs for loss on derecognition lease	–
Other income for gain on derecognition lease	–
Other income from sub-leasing	–
Total	**834**

42 Investments in subsidiaries

In € thousands	2019	2018
Balance at 31 December	**1,358,526**	**1,389,493**
Impact of changes in accounting policies	971	(6,664)
Balance at 1 January	**1,359,497**	**1,382,829**
Share in income of subsidiaries	95,413	(50,725)
Dividends received	(192,605)	–
Capital contributions	3,402	5,292
Capital repayments	(74,530)	–
Purchase of non–controlling interest	(15,748)	–
Other charges	(1,172)	5,363
Reclassification to provision for negative equity of investments	13,427	10,476
Exchange rate differences	33,930	5,291
Balance at 31 December	**1,221,614**	**1,358,526**

The reclassification to the provisions (see note 46) relates to a direct subsidiary of the Company with a negative equity at 31 December 2019 of €23.9 million (2018: €10.5 million).

43 Loans issued to subsidiaries and other investments

In € thousands	2019	2018
Balance at 1 January	**227,253**	**210,433**
Loans issued to subsidiaries	44,774	112,285
Redemptions	(5,165)	(96,366)
Investments	704	–
Exchange rate differences	7,348	901
Balance at 31 December	**274,914**	**227,253**

As Arcadis NV applies the same valuation principles in the Company financial statements as those applied in the Consolidated financial statements, IFRS 9 is also applicable to intercompany loans and receivables. The assessment of the Expected Credit Loss did not result in a material impact on the Company financial statements. To have consistency between the Consolidated and standalone equity no loss has been recorded, which is in line with the clarification as provided by the Raad voor de Jaarverslaggeving (RJ) that a reversal of the Expected Credit Loss can be included in the carrying amount of the loans.

Noted is that Arcadis NV has control, directly or indirectly, over all the subsidiaries it granted loans and can convert these into equity if needed.

44 Receivables

In € thousands	2019	2018
Receivables from subsidiaries and associates	206,664	236,711
Other receivables	2,642	7,443
Balance at 31 December	**209,306**	**244,154**

The Receivables from subsidiaries and associates mainly relate to short–term financing by means of current accounts.

Arcadis applied the simplified approach under IFRS 9 to its intercompany current receivables and concluded that the Expected Credit Loss is immaterial. See note 20 of the Consolidated financial statements for further details on the simplified approach and note 43 on the treatment of the Expected Credit Loss on intercompany positions in the Company financial statements.

Company financial statements

45 Shareholders' equity

In € thousands	Share capital	Share premium	Hedging reserve	Translation reserve	Other legal reserve	Retained earnings	Undistributed profits	Total
Balance at 1 January 2018	**1,748**	**372,533**	**(1,525)**	**(89,058)**	**36,426**	**580,294**	**70,804**	**971,222**
Net income	–	–	–	–	–	–	(26,701)	(26,701)
Exchange rate differences	–	–	–	6,867	–	–	–	6,867
Effective portion of changes in fair value of cash flow hedges, net of income taxes	–	–	94	–	–	–	–	94
Remeasurements on post-employment benefit obligations, net of income taxes	–	–	–	–	–	4,858	–	4,858
Other comprehensive income, net of income taxes	**–**	**–**	**94**	**6,867**	**–**	**4,858**	**–**	**11,819**
Total comprehensive income for the period	**–**	**–**	**94**	**6,867**	**–**	**4,858**	**(26,701)**	**(14,882)**
Transactions with owners of the Company:								
Dividends to shareholders	–	(26,716)	–	–	–	–	(13,693)	(40,409)
Addition to other (statutory) reserves	–	–	–	–	37,799	19,312	(57,111)	–
Issuance of shares	32	26,684	–	–	–	–	–	26,716
Share-based compensation, net of income taxes	–	–	–	–	–	6,787	–	6,787
Purchase of own shares	–	–	–	–	–	(10,307)	–	(10,307)
Share options exercised	–	–	–	–	–	2,793	–	2,793
Total transactions with owners of the Company	**32**	**(32)**	**–**	**–**	**37,799**	**18,585**	**(70,804)**	**(14,420)**
Balance at 31 December 2018	**1,780**	**372,501**	**(1,431)**	**(82,191)**	**74,225**	**603,737**	**(26,701)**	**941,920**
Impact of changes in accounting policies	–	–	–	–	–	971	0	971
Balance at 1 January 2019	**1,780**	**372,501**	**(1,431)**	**(82,191)**	**74,225**	**604,708**	**(26,701)**	**942,891**
Net income	–	–	–	–	–	–	12,302	12,302
Exchange rate differences	–	–	–	32,944	–	–	–	32,944
Effective portion of changes in fair value of cash flow hedges, net of income taxes	–	–	886	–	–	–	–	886
Remeasurements on post-employment benefit obligations, net of income taxes	–	–	–	–	–	(3,354)	–	(3,354)
Other changes	–	–	–	829	–	(829)	–	–
Other comprehensive income, net of income taxes	**–**	**–**	**886**	**33,773**	**–**	**(3,354)**	**12,302**	**30,476**
Total comprehensive income for the period	**–**	**–**	**886**	**33,773**	**–**	**(4,183)**	**12,302**	**42,778**
Transactions with owners of the Company:								
Acquisitions and transactions with non-controlling interests	–	–	–	–	–	(15,748)	–	(15,748)
Dividends to shareholders	–	(23,477)	–	–	–	(17,766)	–	(41,243)
Addition to (utilization of) other (statutory) reserves	–	–	–	–	(18,657)	(8,044)	26,701	–
Issuance of shares	29	23,448	–	–	–	–	–	23,477
Share-based compensation, net of income taxes	–	–	–	–	–	13,143	–	13,143
Purchase of own shares	–	–	–	–	–	(13,613)	–	(13,613)
Share options exercised	–	–	–	–	–	10,826	–	10,826
Total transactions with owners of the Company	**29**	**(29)**	**–**	**–**	**(18,657)**	**(31,202)**	**26,701**	**(23,158)**
Balance at 31 December 2019	**1,809**	**372,472**	**(545)**	**(48,418)**	**55,568**	**569,323**	**12,302**	**962,511**

The total Legal reserves include the Hedging reserve, Translation reserve and Other legal reserves and are non–distributable. The other legal reserves relate to earnings retained by subsidiaries, associates and joint ventures, as well as internally developed software. For information on shares purchased to cover the Company's option plans, see note 25 of the Consolidated financial statements.

For further details on the opening balance impact due to changes in accounting policies see note 3 of the Consolidated financial statements.

46 Provisions

In € thousands	2019	2018
Balance at 1 January	**12,232**	**1,625**
Additions	24,524	10,626
Deductions because of use	(657)	(19)
Release of unused amounts	(1,500)	–
Balance at 31 December	**34,599**	**12,232**
Current	10,224	256
Non-current	24,375	11,976
Total	**34,599**	**12,232**

The provisions of Arcadis NV at 31 December 2019 relate to claims and litigations for an amount of nil (2018: €1.5 million), €0.7 million to restructuring (2018: €0.2 million) and €10.0 million to ALEN (see note 16). An amount of €13.4 million is added in 2019 to the provision for negative equity of a direct subsidiary of the Company, in accordance with article 2:403 paragraph 1 of the Dutch Civil Code (2018: €10.5 million).

47 Deferred tax assets and liabilities

In € thousands	Deferred tax assets	Deferred tax liabilities	Total
Balance at 1 January 2018	**704**	**(393)**	**311**
Additions/ (deductions)	268	–	368
Changes recognized directly in equity/OCI	–	–	–
Reclassification	(393)	393	–
Balance at 31 December 2018	**679**	**–**	**679**
Impact of changes in accounting policies	–	–	–
Balance at 1 January 2019	**679**	**–**	**679**
Additions/ (deductions)	1,913	–	1,913
Changes recognized directly in equity/OCI	–	–	–
Balance at 31 December 2019	**2,592**	**–**	**2,592**

48 Long–term debt

In € thousands	2019	2018
Loans from group companies	137,248	250,794
Loan notes issued to financial institutions	99,539	168,981
Balance at 31 December	**236,787**	**419,775**

The loans notes issued to financial institutions are due in 2022.

49 Current liabilities

In € thousands	2019	2018
Suppliers	5,899	7,856
Payables to group companies	370,563	517,374
Provision for Expected Credit Loss on Corporate guarantees	92,773	–
Other liabilities	18,680	15,236
Balance at 31 December	**487,915**	**540,466**

The payables to group companies mainly relate to the internal cash pool. Refer to note 29 and 31 of the Consolidated financial statements for further information on Arcadis' lines of credit.

At 31 December 2019, the Expected Credit Losses relating to ALEN are fully provided for in the Company for an amount equal to the outstanding guarantees, being €92.8 million. See note 16 of the Consolidated financial statements for further details on ALEN.

50 Commitments and contingent liabilities

Commitments and contingent liabilities

As parent company of the fiscal unity in the Netherlands, the Company is severally liable for the corporate income tax and value added tax liabilities of the fiscal unity. The companies that form part of the Arcadis NV tax group account for their tax position based on their own taxable result. The tax charge is settled with the Company based on the finalized tax return.

At the end of 2019, the Company had commitments for rent and lease obligations that are exempted from IFRS 16 (short–term and/or low value leases) amounting to nil. Additionally, the Company entered into long–term service commitments relating to the global IT outsourcing contract of €17.4 million (2018: €21.5 million).

Guarantees & short–term facilities

Arcadis NV has pledged a limited number of guarantees for the short–term credit and guarantee facilities that are available for use to its operating companies. The total amount available under these facilities is €170.5 million of which €56.0 million is used at 31 December 2019 (2018: €183.5 million of which €31.5 million was used). In addition to this amount, Arcadis NV has corporate guarantees for an amount of €265.9 million available (2018: €234.9 million).

For a total overview of all off–balance sheet guarantees provided by Arcadis NV or its subsidiaries see note 32 of the Consolidated financial statements.

51 Remuneration of EB and SB members

Remuneration of Executive Board members

In 2019, an amount of €3.6 million (2018: €4.6 million, including fringe benefits) was charged to the Company for remuneration of the current and former Executive Board members, including pension charges, the LTIP expense and fringe benefits.

As reflected in the 'Remuneration report' and the table on page 258, a number of 84,459 conditional (performance) shares were granted to Executive Board members as variable remuneration (2018: 151,230).

For an explanation of the Remuneration Policy, see the 'Remuneration Report' included in this Annual Integrated Report on pages 168 to 175.

Overview of remuneration of Executive Board members in 2019

In € thousands	Salary	Bonus[1]	Pension compensation	Pension	LTIP expense[2]	Termination benefit	Fringe benefits	**Total 2019**	Conditional (performance) shares	
									Number	Value[3]
Peter Oosterveer	660	373	166	18	1,049	–	58	2,324	51,055	900
Sarah Kuijlaars	475	245	80	18	393	–	61	1,272	33,404	589
Total Board members	**1,135**	**618**	**246**	**36**	**1,442**	**–**	**119**	**3,596**	**84,459**	**1,489**

1 The bonus is based on the results achieved in 2019, this bonus will be paid in 2020
2 The LTIP expense relates to the charge to the Income statement in the year based on the plans granted in the preceding 36 months
3 This amount is charged over a three-year period to the Company's income statement and only includes the expense for grants received in the capacity of Executive Board member

The fringe benefits of current board members of €0.1 million (2018: €0.1 million) include a representation and expense allowance, a car allowance, a housing allowance (only for a temporary period for the CFO while transitioning to the Netherlands), social security premium and health and disability insurance.

Overview of remuneration of Executive Board members in 2018

The next table includes all remuneration that has been expensed during the year and which was received in the capacity of Executive Board membership.

In € thousands	Salary	Bonus[1]	Pension compensation	Pension	LTIP expense[2]	Termination benefit[3]	**Total 2019**	Conditional (performance) shares	
								Number	Value[4]
Peter Oosterveer	660	210	167	17	728	–	1,782	87,790	1,089
Sarah Kuijlaars	326	115	57	12	175	–	685	63,440[5]	787
Total current Board members	**986**	**325**	**224**	**29**	**903**	**–**	**2,467**	**151,230**	**1,876**
Renier Vree	79	–	14	3	190	–	286		
Stephanie Hottenhuis	85	55	15	3	165	461	784		
Stephan Ritter	85	21	12	3	302	–	423		
Mary Ann Hopkins	108	40	11	–	396	–	555		
Total former Board members	**357**	**116**	**52**	**9**	**1,053**	**461**	**2,048**		

1 The bonus is based on the results achieved in 2018, this bonus was paid in 2019
2 The LTIP expense relates to the charge to the Income statement in the year based on the plans granted in the preceding 36 months
3 The payment is made in accordance with the remuneration policy, and includes €21,000 of Dutch pseudo final tax levy ('pseudo eindheffing') payable by Arcadis
4 This amount is charged over a three-year period to the Company's income statement and only includes the expense for grants received in the capacity of Executive Board member
5 No grant received in 2018 in the capacity of Executive Board member

Remuneration of Supervisory Board members

At year–end 2019, the Supervisory Board consisted of seven members (2018: seven). The joint fixed remuneration for 2019 amounted to €0.6 million (2018: €0.6 million), specified as follows:

In € thousands	2019	2018
Niek W. Hoek	104	105
Deanna Goodwin	80	80
Ruth Markland	77	81
Ian M. Grice[1]	–	29
Michael Putnam[2]	80	61
J.C. Maarten Schönfeld	72	73
Michiel Lap	80	84
Wee Gee Ang	84	84

1 Ian M. Grice resigned from the Supervisory Board on 24 April 2018
2 Michael Putnam was appointed as member of the Supervisory Board on 24 April 2018

52 Interests held by members of the EB

The interests held in the share capital of Arcadis NV by members of the Executive Board were:

Number of shares Arcadis NV Current EB members	31 December 2019	31 December 2018
Peter Oosterveer	15,428	15,000
Sarah Kuijlaars	3,342	3,250

Number of conditional (performance) shares Arcadis NV[1] Current EB members	31 December 2019	31 December 2018
Peter Oosterveer	226,635	175,580
Sarah Kuijlaars	96,844	63,440

1 Amounts are based on granting 100% of the reference numbers, with maximal extension to 200% (see note 9). For the description of the LTIP plan, please refer to the paragraph 'Long–term variable remuneration: performance shares' on page 170 of this Annual Integrated Report

In 2019, the aggregate numbers of conditional performance shares held by members of the Executive Board are as below. The board members did not hold stock options in 2019.

Conditional performance shares	Granted in	Share price at grant date (in €)	Outstanding at 1 January 2019	Granted in 2019	Increase/(decrease) by performance measure	Forfeited in 2019	Outstanding at 31 December 2019	Vesting date
Peter Oosterveer								
	2017	15.91	87,790	–	–	–	87,790	ex–dividend date 2020
	2018	15.75	87,790	–	–	–	87,790	ex–dividend date 2021
	2019	16.90	–	51,055	–	–	51,055	ex–dividend date 2022
			175,580	**51,055**	**–**	**–**	**226,635**	
Sarah Kuijlaars								
	2018	15.75	6,000	–	–	–	6,000	ex–dividend date 2020
	2018	15.75	57,440	–	–	–	57,440	ex–dividend date 2021
	2019	16.90	–	33,404	–	–	33,404	ex–dividend date 2022
			63,440	**33,404**	**–**	**–**	**96,844**	
Total conditional performance shares current board members			**239,020**	**84,459**	**–**	**–**	**323,479**	

53 Shares and options held by members of the SB

Members of the Supervisory Board hold no Arcadis shares and/or options.

54 Employees

At 31 December 2019, Arcadis NV had 142 full–time employees (2018: 138). For information on share–based remuneration granted to employees of Arcadis NV, as meant by article 2:383d paragraph 1 of the Dutch Civil Code, see note 9 to the Consolidated financial statements.

Personnel costs for Arcadis NV consisted of the following:

In € thousands	2019	2018
Salaries and wages	26,208	18,321
Social charges	1,523	1,407
Pension and early retirement charges	1,558	669
Other personnel costs (including temporary labor)	21,035	18,741
Total personnel costs	**50,324**	**39,138**

The other personnel costs include an amount of €1.4 million of payments in relation to the termination of employment agreements.

55 External auditor fees and services

In accordance with article 2:382a of the Dutch Civil Code the following table details the aggregate fees billed by our external auditor, PricewaterhouseCoopers Accountants NV, including the foreign offices of PricewaterhouseCoopers of the last two fiscal years for various services:

Type of services provided (in € millions)	2019	2018
Audit fees	3.5	3.4
Audit–related fees	0.2	0.3
Tax fees	–	–
Other non–audit fees	–	–
Total	**3.7**	**3.7**

Audit–related fees consist of fees for services that are traditionally performed by the external auditors. In addition to the statutory audit of Arcadis NV, PricewaterhouseCoopers Accountants NV was engaged by the Supervisory Board to perform specific agreed upon procedures.

Of the total fees billed an amount of €1.1 million relates to PricewaterhouseCoopers Accountants NV (2018: €1.0 million) and the remainder to its foreign offices.

Amsterdam, the Netherlands, 12 February 2019

Executive Board	**Supervisory Board**
Peter Oosterveer	Niek Hoek
Sarah Kuijlaars	Michiel Lap
	Maarten Schönfeld
	Ruth Markland
	Michael Putnam
	Deanna Goodwin
	Wee Gee Ang

Other information

Other information

Profit allocation

Article 27 of the Articles of Association stipulates, among other things, that the Executive Board, with the approval of the Supervisory Board, shall annually decide which part of the profit shall be allocated to the reserves. The remaining part of the profit shall be at the disposal of the Annual General Meeting of Shareholders.

The profit attributable to the equity holders of the Company over fiscal year 2019 amounts to €12.3 million. The Executive Board, with the approval of the Supervisory Board, proposes to deduct an amount of €37.7 million from the retained earnings and to present for approval to the General Meeting of Shareholders its proposal to distribute a dividend amount of €50.0 million, which represents a dividend of €0.56 per ordinary share, at the option of the respective shareholder(s) in cash or in the form of shares.

Audit and Risk Committee policies and procedures

The Audit and Risk Committee has adopted a charter that details the duties and responsibilities of the Audit and Risk Committee. These duties and responsibilities include, amongst other things, reviewing and overseeing the financial and operational information provided by Arcadis to its shareholders and others, systems of internal controls, financial risk management, accounting and financial reporting processes, the independence, qualifications and performance of the external auditor of Arcadis and the performance of the internal audit function.

Special rights to holders of priority shares

The priority shares are held by Stichting Prioriteit Arcadis NV. The Board of the Stichting Prioriteit Arcadis NV consists of twenty (20) board members (with two (2) vacancies at 31 December 2019): all seven (7) members of the Supervisory Board, both (2) members of the Executive Board, one (1) member of the Executive Leadership Team, and all ten (10) members from the Board of Stichting Bellevue (a foundation established in Arnhem, which board members are appointed by and from the international employees of Arcadis). Each board member has one vote whereby in the event of a vacancy, the number of votes that can be exercised by the Executive Board and Executive Leadership Team members together with the Supervisory Board members shall equal the number of votes that can be exercised by the employee members. Stichting Prioriteit Arcadis NV has special statutory rights, which includes approval of the amendment of the Articles of Association of Arcadis NV, and certain other topics, which have been described in note 25 of the Consolidated financial statements.

Independent auditor's report

To: the general meeting and the Supervisory Board of Arcadis N.V.

Report on the financial statements 2019

Our opinion

In our opinion:

- the consolidated financial statements of Arcadis N.V. together with its subsidiaries ('the group') give a true and fair view of the financial position of the group as at 31 December 2019 and of its result and cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and with Part 9 of Book 2 of the Dutch Civil Code;
- the company financial statements of Arcadis N.V. ('the Company') give a true and fair view of the financial position of the Company as at 31 December 2019 and of its result for the year then ended in accordance with Part 9 of Book 2 of the Dutch Civil Code.

What we have audited

We have audited the accompanying financial statements 2019 of Arcadis N.V., Amsterdam. The financial statements include the consolidated financial statements of the group and the company financial statements.

The consolidated financial statements comprise:

- the consolidated balance sheet as at 31 December 2019;
- the following statements for 2019: the consolidated income statement, the consolidated statements of comprehensive income, changes in equity and cash flows; and
- the notes, comprising significant accounting policies and other explanatory information.

The company financial statements comprise:

- the company balance sheet as at 31 December 2019;
- the company income statement for the year then ended;
- the notes, comprising the accounting policies applied and other explanatory information.

The financial reporting framework applied in the preparation of the financial statements is EU-IFRS and the relevant provisions of Part 9 of Book 2 of the Dutch Civil Code for the consolidated financial statements and Part 9 of Book 2 of the Dutch Civil Code for the company financial statements.

The basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. We have further described our responsibilities under those standards in the section 'Our responsibilities for the audit of the financial statements' of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of Arcadis N.V. in accordance with the European Union Regulation on specific requirements regarding statutory audit of public-interest entities, the 'Wet toezicht accountantsorganisaties' (Wta, Audit firms supervision act), the 'Verordening inzake de onafhankelijkheid van accountants bij assuranceopdrachten' (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence requirements in the Netherlands. Furthermore, we have complied with the 'Verordening gedrags- en beroepsregels accountants' (VGBA, Dutch Code of Ethics).

Our audit approach

Overview and context

Arcadis N.V. is a design & consultancy organization for natural and built assets. The group is comprised of several components and therefore we considered our group audit scope and approach as set out in the section 'The scope of our group audit'. We paid specific attention to the areas of focus driven by the operations of the group, as set out below.

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements. In particular, we considered where management made important judgements, for example, in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain.

In note 2 of the financial statements, the company describes the areas of judgement in applying accounting policies and the key sources of estimation uncertainty. Given the significant estimation uncertainty and the related higher inherent risks of material misstatement in relation to the valuation of goodwill as well as project revenue recognition and valuation of contract assets, we considered these matters as key audit matters as set out in the section 'Key audit matters' of this report. Furthermore, we identified the valuation of Arcadis' shareholder loans to associate Arcadis Logos Energia ("ALEN") and the corporate guarantees issued in relation to the bank loans of ALEN and its underlying investments as a key audit matter because of the judgement required in assessing the wind down scenarios for this associate. These items all involve making assumptions and considering future events that are inherently uncertain.

Other areas of focus, that were not considered as key audit matters, were the continued roll-out of the Arcadis Way, which mainly relates to the migration of local ERP systems to the central Oracle ERP system for several components, and the application of the new accounting standard IFRS 16. As in all of our audits, we also addressed the risk of management override of controls, including evaluating whether there was evidence of bias by management that may represent a risk of material misstatement due to fraud.

We ensured that the audit teams at both group and component level included the appropriate skills and competencies that are needed for the audit of a listed client in the global design & consultancy industry. We therefore included experts and specialists in the areas of amongst others IT audit, forensics, treasury, share-based payments, income tax, valuations and actuaries in our team.

The outline of our audit approach was as follows:

Materiality
- Overall materiality: €12.0 million.

Audit scope
- We conducted audits on 8 components and performed specified procedures on 3 components.
- Site visits were conducted to locations in the Netherlands, United States, United Kingdom and Middle East.
- Audit coverage: 73% of consolidated net revenue, 77% of consolidated total assets and 79% of consolidated profit before tax.

Key audit matters
- Project revenue recognition and valuation of contract assets.
- Valuation of goodwill.
- Valuation of Arcadis' shareholder loans to ALEN and corporate guarantees issued in relation to the bank loans of ALEN and its underlying investments.

Materiality

The scope of our audit is influenced by the application of materiality, which is further explained in the section 'Our responsibilities for the audit of the financial statements'.

Based on our professional judgement we determined certain quantitative thresholds for materiality, including the overall materiality for the financial statements as a whole as set out in the table below. These, together with qualitative considerations, helped us to determine the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and to evaluate the effect of identified misstatements, both individually and in aggregate, on the financial statements as a whole and on our opinion.

Overall group materiality	€12.0 million (2018: €5.1 million).
Basis for determining materiality	We used our professional judgement to determine overall materiality. As a basis for our judgement, we used 0.5% of net revenues.
Rationale for benchmark applied	We concluded that profitability measures, which were used as the benchmark in prior years, are not the most appropriate benchmark for determining materiality. Profitability measures continue to be volatile over the years and are therefore not reflective of the scale of operations of the group. We therefore changed the benchmark to net revenues as this is an important benchmark used in the annual report. We used a percentage of 0.5% of net revenues to reach an appropriate level of materiality based on our analysis of the common information needs of users of the financial statements.
Component materiality	To each component in our audit scope, we, based on our judgement, allocate materiality that is less than our overall group materiality. The range of materiality allocated across components was between €0.5 million and €6.0 million (2018: €0.4 and €4.3 million). Certain components were audited with a local statutory audit materiality that was also less than our overall group materiality.

We also take misstatements and/or possible misstatements into account that, in our judgement, are material for qualitative reasons.

We agreed with the supervisory board that we would report to them misstatements identified during our audit above €250,000 (2018: €250,000) and reclassifications above €1.0 million (2018: €1.0 million) as well as misstatements below that amount that, in our view, warranted reporting for qualitative reasons.

The scope of our group audit

Arcadis N.V. is the parent company of a group of entities. The financial information of this group is included in the consolidated financial statements of Arcadis N.V.

We tailored the scope of our audit to ensure that we, in aggregate, provide sufficient coverage on the financial statements for us to be able to give an opinion on the financial statements as a whole, taking into account the management structure of the group, the nature of operations of its components, the accounting processes and controls, and the markets in which the components of the group operate. In establishing the overall group audit strategy and plan, we determined the type of work required to be performed at component level by the group engagement team and by each component auditor.

The group audit primarily focussed on the significant components of Arcadis N.V., which include group entities in the Netherlands, United Kingdom, Australia and the United States. We subjected five components in these countries to audits of their complete financial information, as those components are individually financially significant to the group. Additionally, we selected three other components for audit procedures to achieve appropriate coverage on financial line items in the consolidated financial statements. Three components were subject to specific risk-focused audit procedures as they include significant or higher risk areas.

In total, in performing these procedures, we achieved the following coverage on the financial line items:

Net Revenue	73%
Total assets	77%
Profit before tax	79%

None of the remaining components represented more than 4% of total group revenue or total group assets. For those remaining components we performed, amongst others, analytical procedures to corroborate our assessment that there were no significant risks of material misstatements within those components.

The group engagement team performed the audit work for Arcadis N.V. For the other components we used component auditors who are familiar with the local laws and regulations to perform the audit work.

Where component auditors performed the work, we determined the level of involvement we needed to have in their audit work to be able to conclude whether we had obtained sufficient and appropriate audit evidence as a basis for our opinion on the consolidated financial statements as a whole.

We issued instructions to the component audit teams in our audit scope. These instructions included amongst others our risk analysis, materiality and scope of the work. We explained to the component audit teams the structure of the group, the main developments that are relevant for the component auditors, the risks identified, the materiality levels to be applied and our global audit approach. We had individual calls with each of the in-scope component audit teams during the year and upon conclusion of their work. During these calls, we discussed the significant accounting and audit issues identified by the component auditors, their reports, the findings of their procedures and other matters, which could be of relevance for the consolidated financial statements.

The group engagement team visits the component teams and local management on a rotational basis and taking into account the significance of individual components to the group. In the current year, the group audit team visited the component auditors in the Netherlands, the United Kingdom, the United States and the Middle East. For each of these locations we reviewed selected working papers of the component auditors.

The group engagement team performed the audit work on the group consolidation, financial statement disclosures and a number of complex items at the head office. These included, goodwill impairment testing, accounting for derivative financial instruments and share based payments. The group team also performed testing over the central ERP systems.

By performing the procedures above at components, combined with additional procedures at group level, we have been able to obtain sufficient and appropriate audit evidence on the group's financial information, as a whole, to provide a basis for our opinion on the financial statements.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in the audit of the financial statements. We have communicated the key audit matters to the supervisory board. The key audit matters are not a comprehensive reflection of all matters identified by our audit and that we discussed. In this section, we described the key audit matters and included a summary of the audit procedures we performed on those matters.

We addressed the key audit matters in the context of our audit of the financial statements as a whole, and in forming our opinion thereon. We do not provide separate opinions on these matters or on specific elements of the financial statements. Any comment or observation we made on the results of our procedures should be read in this context.

Key audit matter	Our audit work and observations
Project revenue recognition and valuation of contract assets Refer to notes 6, 20, and 21 of the financial statements. We consider this a key audit matter since project revenue recognition and the valuation of contract assets are significant to the financial statements based on the quantitative materiality and because of the degree of management judgement involved. Management applies judgement to determine the cost to complete for contracts, which is the basis for revenue recognition and contract asset valuation, as well as for assessing provisions for loss-making contracts. In addition, the valuation of contract assets requires significant management judgement in determining recoverability, especially in the Middle East region, considering the above average ageing and the magnitude of the contract assets.	We performed substantive audit procedures on individually significant projects as well as high-risk projects. In addition, we took a sample over the remaining population to ensure sufficient coverage over all projects. These substantive procedures focused on assumptions applied by Arcadis to determine the cost to complete. The procedures included obtaining evidence to support applied hourly rates and reconciling changes in budgets to supporting evidence such as contract modifications. We also discussed the progress of the projects with the respective project managers and management of the operating companies. With regards to the above average ageing and magnitude of the contract assets in the Middle East region, specific attention has been given to the collection and valuation of several contracts with significant contract assets. We have discussed management's position papers for these projects during our Middle East site visit with the responsible project managers, the contract solutions team and the regional CFO and CEO. We have obtained supporting documentation, which included support for contract modifications, correspondence with the client and minutes confirming the status of negotiations with the client.

Key audit matter	Our audit work and observations
Valuation of goodwill Refer to note 13 of the financial statements We focused on this area given the magnitude of the goodwill balance and because the executive board's assessment of the 'value in use' of the group's eight Cash Generating Units (CGUs) is subject to estimation uncertainty. This involves significant judgement about the future revenue growth, operating EBITA margin, working capital developments and the discount rates applied in cash flow forecasts. Note 13 to the consolidated financial statements discloses the key assumptions applied by management for goodwill impairment testing. We especially focused our audit efforts on those CGUs that have limited headroom and for which the company disclosed its sensitivity analysis in the notes financial statements, being Middle-East and CRTKL.	Our audit procedures mainly included, an assessment of assumptions applied in the model, testing of the inputs to the model, assessing the disclosure note on goodwill, testing mathematical accuracy of the model and a reconciliation of the model to the five-year forecasts and long-term strategic plans that were approved by senior management. Our valuation experts supported us in the evaluation of the discount rate as well as other assumptions and methodologies used. We have challenged the assumptions applied by management, especially for the sensitive CGUs. This was done by, amongst others, comparing the assumptions to the historic performance of the company, local economic developments, development of the book-to-bill ratio and industry outlook. We also have taken into account the sensitivity of the 'value in use' to changes in the respective assumptions. Based on our procedures performed, we concur with the outcome of the model and the disclosures included in the financial statements.
Expected credit losses in relation to Arcadis' shareholder loans to ALEN and corporate guarantees issued in relation to the bank loans of ALEN and its underlying investments Refer to note 16 of the financial statements. Arcadis recognized expected credit losses on shareholder loans and corporate guarantees for an amount of € 82 million in 2019. This loss relates to Arcadis' associate ALEN. Arcadis Logos Energia ('ALEN') is a 49.99% owned Brazilian associate in the Arcadis group. ALEN develops gas-to-gas and gas-to-power energy plants at landfills through its equity investments. These plants are still under construction or in a start-up phase. ALEN does not generate positive cash flows. ALEN's investments are financed by shareholder loans and external bank loans. Arcadis N.V. has issued corporate guarantees in relation to the bank loans of ALEN and several of its underlying investments. These corporate guarantees expose Arcadis to the risk of ALEN running into financial difficulty. To address this risk, the shareholders tried to divest ALEN and its underlying investments during 2019. Developments, including the unsatisfactory performance of the biggest asset, resulted in offers that led Arcadis to re-assess its exposure and decide that it will not further invest in ALEN. This has triggered a default on repayment of the aforementioned bank loans that will, in turn, result in banks claiming repayment from Arcadis for the full amount of the guarantees provided. Therefore, Arcadis fully provided for the expected credit loss on its shareholder loans and outstanding guarantees, amounting to respectively €17 million and €65 million. Management has assessed various scenarios to wind down its involvement in ALEN. These scenarios show that future benefits are highly uncertain and as such these have not been taken into account in determining the expected credit loss on the guarantees. We consider this to be a key audit matter since there is significant judgement required in the assessment of future ALEN scenarios and the impact of these scenarios on the valuation of Arcadis' expected credit loss.	We took note of Arcadis' decision-making process to stop further investments in ALEN by reading Supervisory Board minutes and by meeting with the individuals involved in the decision process. These procedures confirmed that a decision was made before year-end 2019 to stop investing in ALEN, after considering the likelihood of a potential sale on reasonable terms and conditions. From our discussions with management and legal advice obtained by management, we have gained an understanding of Arcadis' rights and obligations in the wind down scenarios. In this context, we have also assessed the competence and objectivity of Arcadis' local legal advisor. We assessed the reasonableness of the wind down scenarios. We concur with management's conclusion not to take into account potential future benefits in the determination of the expected credit loss as benefits are highly uncertain. We reconciled the amounts exposed to expected credit losses to the underlying local loan agreements as well as ALEN's balance sheet, which is audited by the component auditor. We also reconciled the guarantees issued by Arcadis to the agreements with the banks. These procedures confirmed that the total outstanding guarantees amount to €93 million, which reconciles to the provision for expected credit loss on the corporate guarantees. Furthermore, we reconciled the impaired shareholder loans to loan agreements and the balance sheet of ALEN. We also assessed the adequacy of the disclosure and noted no exceptions.

Report on the other information included in the annual report

In addition to the financial statements and our auditor's report thereon, the annual report contains other information that consists of:

- introduction
- the executive board report;
- the supervisory board report; and
- the other information pursuant to Part 9 of Book 2 of the Dutch Civil Code.

Based on the procedures performed as set out below, we conclude that the other information:

- is consistent with the financial statements and does not contain material misstatements;
- contains the information that is required by Part 9 of Book 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained in our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements.

By performing our procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of such procedures was substantially less than the scope of those performed in our audit of the financial statements.

The executive board is responsible for the preparation of the other information, including the directors' report and the other information in accordance with Part 9 of Book 2 of the Dutch Civil Code.

Report on other legal and regulatory requirements

Our appointment

We were appointed as auditors of Arcadis N.V. on 13 May 2015 by the supervisory board following the passing of a resolution by the shareholders at the annual meeting held on 13 May 2015. Our appointment has been renewed annually by shareholders representing a total period of uninterrupted engagement appointment of 5 years.

No prohibited non-audit services

To the best of our knowledge and belief, we have not provided prohibited non-audit services as referred to in Article 5(1) of the European Regulation on specific requirements regarding statutory audit of public-interest entities.

Services rendered

The services, in addition to the audit, that we have provided to the Company and its controlled entities, for the period to which our statutory audit relates, are disclosed in note 55 to the financial statements.

Responsibilities for the financial statements and the audit

Responsibilities of the executive board and the supervisory board for the financial statements

The executive board is responsible for:

- the preparation and fair presentation of the financial statements in accordance with EU-IFRS and with Part 9 of Book 2 of the Dutch Civil Code; and for
- such internal control as management determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, the executive board is responsible for assessing the Company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, the executive board should prepare the financial statements using the going-concern basis of accounting unless management either intends to liquidate the company or to cease operations, or has no realistic alternative but to do so. The executive board should disclose events and circumstances that may cast significant doubt on the Company's ability to continue as a going concern in the financial statements.

The supervisory board is responsible for overseeing the Company's financial reporting process.

Our responsibilities for the audit of the financial statements

Our responsibility is to plan and perform an audit engagement in a manner that allows us to obtain sufficient and appropriate audit evidence to provide a basis for our opinion. Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error and to issue an auditor's report that includes our opinion. Reasonable assurance is a high but not absolute level of assurance, which makes it possible that we may not detect all material misstatements. Misstatements may arise due to fraud or error. They are considered to be material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

Materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

A more detailed description of our responsibilities is set out in the appendix to our report.

Amsterdam, 12 February 2020

PricewaterhouseCoopers Accountants N.V.
J.E.M. Brinkman RA

Appendix to our auditor's report on the financial statements 2019 of Arcadis N.V.

In addition to what is included in our auditor's report, we have further set out in this appendix our responsibilities for the audit of the financial statements and explained what an audit involves.

The auditor's responsibilities for the audit of the financial statements

We have exercised professional judgement and have maintained professional scepticism throughout the audit in accordance with Dutch Standards on Auditing, ethical requirements and independence requirements. Our audit consisted, among other things of the following:

- Identifying and assessing the risks of material misstatement of the financial statements, whether due to fraud or error, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the intentional override of internal control.
- Obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Concluding on the appropriateness of management's use of the going-concern basis of accounting, and based on the audit evidence obtained, concluding whether a material uncertainty exists related to events and/or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report and are made in the context of our opinion on the financial statements as a whole. However, future events or conditions may cause the company to cease to continue as a going concern.
- Evaluating the overall presentation, structure and content of the financial statements, including the disclosures, and evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Considering our ultimate responsibility for the opinion on the consolidated financial statements, we are responsible for the direction, supervision and performance of the group audit. In this context, we have determined the nature and extent of the audit procedures for components of the Group to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole. Determining factors are the geographic structure of the Group, the significance and/or risk profile of group entities or activities, the accounting processes and controls, and the industry in which the Group operates. On this basis, we selected group entities for which an audit or review of financial information or specific balances was considered necessary.

We communicate with the supervisory board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit. In this respect, we also issue an additional report to the audit committee in accordance with Article 11 of the EU Regulation on specific requirements regarding statutory audit of public-interest entities. The information included in this additional report is consistent with our audit opinion in this auditor's report.

We provide the supervisory board with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the supervisory board, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, not communicating the matter is in the public interest.

Assurance report of the independent auditor

To: the Executive Board and the Supervisory Board of Arcadis NV

Assurance report on selected financial and non-financial indicators in the Annual Integrated Report 2019

Our conclusion

We have examined selected financial and non-financial indicators marked with symbol V of Arcadis NV. Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the selected financial and non-financial indicators marked with symbol V are not prepared in all material respects, in accordance with Arcadis NV's reporting criteria.

What we have examined

The object of our assurance engagement concerns selected financial and non-financial indicators marked with symbol V (hereafter: the indicators) included in section '2019 at a glance' of the Annual Integrated Report 2019 of Arcadis NV (hereafter: "the indicators").

1. Number of employees (headcount as at 31 December)
2. Voluntary turnover rate (as % of total staff)
3. Females in total workforce (as % of total staff)
4. Employee engagement (employee net promoter score, on a scale of -100 to 100)
5. Total Recordable Case Frequency (TRCF, per 200,000 work hours)
6. Arcadis Way Implementation progress (as % of net revenues)
7. Organic revenue growth Global Key Clients (net revenues)
8. Organic revenue growth (net revenues)
9. Gross revenues (in € millions)
10. Net Income from Operations per share (in €)
11. Dividend per share (proposed, in €)
12. Net Income from Operations (in € millions)
13. Operating EBITA margin (as % of net revenues)
14. Net Working Capital (as % of gross revenues)
15. Days Sales Outstanding (DSO)
16. Return on Invested Capital (ROIC)
17. Net debt to EBITDA ratio (average)
18. Free Cash Flow (in € millions)

We have reviewed these indicators in the accompanying Annual Integrated Report 2019 of Arcadis NV, Amsterdam for 2019. All other information in the Annual Integrated Report 2019 is not in scope of this engagement. Therefore, we do not report or conclude on this other information.

The basis for our conclusion

We conducted our examination in accordance with Dutch law, including the Dutch Standard 3000A Assurance engagements, other than audits or reviews of historical financial information (attestation-engagements). This engagement is aimed to provide limited assurance. Our responsibilities under this standard are further described in the section 'Our responsibilities for the examination' of our report.

We believe that the assurance information we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Independence and quality control

We are independent of Arcadis NV in accordance with the 'Verordening inzake de onafhankelijkheid van accountants bij assurance opdrachten' (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence requirements in the Netherlands. Furthermore we have complied with the 'Verordening gedrags- en beroepsregels accountants' (VGBA, Code of Ethics for Professional Accountants, a regulation with respect to rules of professional conduct).

We apply the 'Nadere voorschriften kwaliteitssystemen' (NVKS, Regulations for quality systems) and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and other applicable legal and regulatory requirements.

Reporting criteria

The indicators need to be read and understood in conjunction with the reporting criteria. The Executive Board of Arcadis NV is solely responsible for selecting and applying these reporting criteria, taking into account applicable law and regulations related to reporting.

The reporting criteria used for the preparation of the indicators are the Arcadis NV's reporting criteria, as disclosed together with the detailed information on the reporting scope and reporting process and methods in section 'Glossary financial & non-financial indicators' of the Annual Integrated Report 2019. The absence of an established practice on which to draw, to evaluate and measure non-financial information allows for different, but acceptable, measurement techniques and can affect comparability between entities and over time.

Responsibilities for the indicators and the examination thereof

Responsibilities of the Executive Board and the Supervisory Board

The Executive Board of Arcadis NV is responsible for the preparation of the indicators in accordance with Arcadis NV's reporting criteria, including the identification of the intended users and the criteria being applicable for the purpose of these users.

Furthermore, the Executive Board is responsible for such internal control as it determines is necessary to enable the preparation of the indicators that is free from material misstatement, whether due to fraud or error.

The Supervisory Board is responsible for overseeing the company's reporting process on the indicators.

Our responsibilities for the examination

Our responsibility is to plan and perform our examination in a manner that allows us to obtain sufficient and appropriate evidence to provide a basis for our conclusion.

Our conclusion aims to provide limited assurance. The procedures performed in this context consisted primarily of making inquiries with officers of the entity and determining the plausibility of the information included in the indicators. The level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Misstatements may arise due to fraud or error. They are considered to be material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of users taken on the basis of the indicators. Materiality affects the nature, timing and extent of our assurance procedures and the evaluation of the effect of identified misstatements on our conclusion.

Procedures performed

We have exercised professional judgement and have maintained professional scepticism throughout the examination in accordance with the Dutch Standard 3000A, ethical requirements and independence requirements.
Our examination consisted, among other things of the following:

- Evaluating the appropriateness of the reporting criteria used, their consistent application and related disclosures to the indicators.
- Obtaining an understanding of internal control relevant to the examination in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing a conclusion on the effectiveness of the company's internal control.
- Identifying areas of the indicators with a higher risk of a material misstatement, whether due to fraud or error, designing and performing assurance procedures responsive to those risks, and obtaining evidence that is sufficient and appropriate to provide a basis for our conclusion. These procedures consisted amongst others of:
  - Interviewing relevant staff responsible for providing the information for, carrying out internal control procedures on, and consolidating the data of the indicators;
  - Determining the nature and extent of the review procedures for the group components and locations. For this, the nature, extent and/or risk profile of these components are decisive;
  - Obtaining assurance information that the indicators reconcile with underlying records of the company;
  - Reviewing, on a limited test basis, relevant internal and external documentation;
  - Performing an analytical review of the data and trends of the indicators submitted for consolidation at corporate level.
- Reconciling the relevant financial information with the financial statements.
- Evaluating the consistency of the indicators with the other information in the Annual Integrated Report 2019, which is not included in the scope of our review.
- Evaluating the disclosure and presentation made to the indicators in the Annual Integrated Report 2019.

We communicate with the supervisory board on the planned scope and timing of the engagement and on the significant findings that result from our engagement.

Amsterdam, 12 February 2020

PricewaterhouseCoopers Accountants NV
Original has been signed by J.E.M. Brinkman RA

Other financial data

Quarterly financial data (based on IAS 17 for comparison purposes)

	2019				2018			
In € millions unless otherwise stated	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Gross revenues								
In the quarter	829	878	836	930	767	819	808	862
Cumulative	829	1,707	2,543	3,473	767	1,586	2,394	3,256
In the quarter	24%	25%	24%	27%	24%	25%	25%	26%
Cumulative	24%	49%	73%	100%	24%	49%	74%	100%
Net revenues								
In the quarter	628	647	642	660	599	621	613	607
Cumulative	628	1,275	1,917	2,577	599	1,220	1,833	2,440
In the quarter	24%	25%	25%	26%	25%	25%	25%	25%
Cumulative	24%	49%	74%	100%	25%	50%	75%	100%
EBITA								
In the quarter	45.0	45.1	50.2	48.6	37.2	42.4	42.9	39.2
Cumulative	45.0	90.1	140.3	188.9	37.2	79.4	122.3	161.5
In the quarter	24%	24%	26%	26%	23%	26%	27%	24%
Cumulative	24%	48%	74%	100%	23%	49%	76%	100%
Operating EBITA[1]								
In the quarter	47.3	49.3	53.1	59.7	43.1	44.9	45.4	43.8
Cumulative	47.3	96.6	149.7	209.4	43.1	88.0	133.4	177.2
In the quarter	23%	24%	25%	28%	24%	25%	26%	25%
Cumulative	23%	47%	72%	100%	24%	49%	75%	100%

1 Excluding acquisition, restructuring and integration-related costs

Five-year summary

People & Culture

	2019	2018	2017	2016	2015
Employee engagement					
Total number of employees at 31 December	27,875	27,354	27,327	27,080	26,947
Average total number of employees	27,615	27,545	27,208	27,178	27,622
Total number of FTEs in GECs at 31 December	2,678	2,475	2,593	2,019	1,298
Total number of FTEs at 31 December (incl. GECs)	26,436	25,996	25,909	25,594	25,630
Employee engagement score	19[1]	3.10	3.03	–	3.07
Talent management & learning and development					
Voluntary turnover rate (as % of total staff)	13.5%	15.6%	14.6%	15.0%	15.0%
Identified leadership potential rate (retention %)	n/a	69%	94%	90%	72%
Diversity & inclusion					
Females in total workforce (as % of total staff)	38%	37%	37%	36%	35%
Health & Safety					
Total Recordable Case Frequency (TRCF)	0.16	0.18	0.26	0.26	0.29
Lost Time Case Frequency (LTCF)	0.09	0.06	0.11	0.1	0.13
Business ethics					
Employees passing Code of Conduct training (in %)	97%	98%	97%	94%	92%
Number of AGBP alleged breaches (including near misses)	77	77	76	99	105
Investigated AGBP alleged breaches	100%	100%	100%	100%	100%
Tax policies and compliance					
Group Effective Tax rate over past five years	25.6%	25.9%	–	–	–
Privacy (and personal data protection)					
Number of appointed privacy officers in the year	12	12	10	–	–
Risk management framework					
Number of internal audits conducted in the year	25	24	24	32	35
Client experience					
Client experience score	37	45	–	–	–

[1] Employee Net Promoter score (on a scale of -100 to 100)

As some of the above KPIs are newly defined, some previous years comparatives are not available

Innovation & Growth

	2019	2018	2017	2016	2015
Organic revenue growth					
Organic revenue growth (net revenues, in %)	3%	3%	1%	-4%	0%
Book-to-bill ratio (net revenues)	1.00	0.97	1.02	0.94	0.93
Organic revenue growth Global Key Clients (net revenues, in %)	5%	10%	17%	6%	9%
Organic revenue growth Global Cities (net revenues, in %)	12%	11%	6%	14%	10%
Innovation and digitalization					
% of revenues using BIM level 2	42%	34%	–	–	–
Arcadis Way implementation progress (as % of net revenues)	63%	33%	31%	3%	–
Energy and emissions - carbon footprint per FTE (in metric tons of carbon dioxide equivalents)					
Auto transport	0.90	0.99	1.21	1.29	1.25
Air transport	0.79	0.81	0.83	0.90	0.88
Public transport	0.18	0.18	0.19	0.18	0.17
Office energy use	0.68	1.01	1.11	1.13	1.26
Total carbon footprint	2.55	2.98	3.34	3.50	3.56
Environmental non-compliance					
# of identified environmental non-compliances	1	none	–	–	–
Climate change					
% of revenues that relate to relevant SDGs	79%	80%	–	–	–

As some of the above KPIs are newly defined, some previous years comparatives are not available

Focus & Performance

	IFRS16 2019	IAS17 2019	IAS17 2018	IAS17 2017	IAS17 2016	IAS17 2015
Direct economic value generated						
Gross revenues	3,473	3,473	3,256	3,219	3,329	3,419
Net revenues	2,577	2,577	2,440	2,437	2,468	2,597
Direct economic value distributed						
Earnings per share (in €)	1.36	1.42	(0.31)	0.82	0.76	1.19
Dividend per share (in €)	0.56	0.56	0.47	0.47	0.43	0.63
Profit & loss performance						
Operating EBITA	212.6	209.4	177.2	186.4	175.5	250.3
Operating EBITA margin (in %)	8.2%	8.1%	7.3%	7.6%	7.1%	9.6%
EBITDA	308.7	234.9	204.1	200.5	207.4	247.4
Net income from operations	119.8	125.0	87.6	101.0	90.9	137.2
Balance sheet performance						
Net working capital (in %)	16.6%	16.6%	15.1%	16.9%	17.5%	17.1%
Days Sales Outstanding (DSO)	88	88	80	88	91	84
Return on Invested Capital (ROIC)	5.9%	6.1%	4.7%	7.3%	6.8%	9.3%
Year-end net debt to EBITDA ratio	1.3[1]	1.3	1.7	2.1	2.3	1.9
Average net debt to EBITDA ratio	1.4[1]	1.4	2.0	2.3	2.5	2.2
Cash flow performance						
Free cash flow	97.2[2]	97.2	149.0	97.7	80.0	120.6

1 For bank covenant purposes the applicable ratio is lease-adjusted
2 Cash flow from operating activities minus investments in (in)tangible assets and including lease payments

Segment information

Amounts in € millions (rounding may impact totals)	IFRS16 2019	IAS17 2019	IAS17 2018
Gross revenues			
Europe & Middle East	1,390	1,390	1,392
Americas	1,394	1,394	1,186
Asia Pacific	388	388	375
CallisonRTKL	301	301	301
Total	**3,473**	**3,473**	**3,256**
Net revenues			
Europe & Middle East	1,145	1,145	1,133
Americas	860	860	755
Asia Pacific	350	350	331
CallisonRTKL	222	222	220
Total	**2,577**	**2,577**	**2,440**
EBITA			
Europe & Middle East	85.0	84.7	68.4
Americas	57.3	56.2	51.7
Asia Pacific	31.5	31.3	24.2
CallisonRTKL	18.3	16.7	17.3
Total EBITA	**192.1**	**188.9**	**161.5**
Non-recurring[1]	20.5	20.5	15.6
Total operating EBITA	**212.6**	**209.4**	**177.2**
Operating EBITA[2]			
Europe & Middle East	87.5	87.0	77.4
Americas	71.4	70.5	54.9
Asia Pacific	35.1	34.9	25.4
CallisonRTKL	18.6	17.0	19.4
Total	**212.6**	**209.4**	**177.2**

[1] Acquisition, restructuring, integration-related costs and changes in acquisition-related litigation provisions
[2] Operating EBITA is EBITA adjusted for non-recurring costs

Amounts in %	IFRS16 2019	IAS17 2019	IAS17 2018
Segment mix (gross revenues)			
Europe & Middle East	40	40	43
Americas	40	40	36
Asia Pacific	11	11	12
CallisonRTKL	9	9	9
Total	**100**	**100**	**100**
Segment mix (net revenues)			
Europe & Middle East	44	44	46
Americas	33	33	31
Asia Pacific	14	14	14
CallisonRTKL	9	9	9
Total	**100**	**100**	**100**
EBITA margin			
Europe & Middle East	7.4%	7.4%	6.0%
Americas	6.7%	6.5%	6.8%
Asia Pacific	9.0%	9.0%	7.3%
CallisonRTKL	8.3%	7.5%	7.9%
Total	**7.5%**	**7.3%**	**6.6%**
Operating EBITA margin			
Europe & Middle East	7.6%	7.6%	6.8%
Americas	8.3%	8.2%	7.3%
Asia Pacific	10.0%	10.0%	7.7%
CallisonRTKL	8.4%	7.6%	8.8%
Total	**8.2%**	**8.1%**	**7.3%**

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Glossary financial & non-financial indicators

Arcadis requested its external auditor to provide limited assurance on a selection of financial and non-financial indicators included in this Annual Integrated Report.

The selected indicators that fall within the scope of limited assurance by our external auditor are summarized on the '2019 at a glance page' on page 5, 6 and 7 as marked with the ✓ symbol, further, these indicators are to be found throughout this Annual Integrated Report. These indicators are amongst the most material indicators for Arcadis. (See page 269 for the Assurance report of the independent auditor, which included details on the scoping and outcomes.)

Unless described otherwise, the scope of the indicators is based on Arcadis NV and its consolidated subsidiaries ('Arcadis', 'the Group' or 'the Company'). Arcadis aims to increase the assurance scope for information in the Annual Integrated Report in coming years. For a description of the definitions of these indicators (and some others used in this Annual Integrated Report) please refer to the section here below, and on the next page.

	Indicator	Definition
People & Culture	Number of employees	Employees expressed in number of individuals at the balance sheet date. Employees are defined as individuals that are in an employment relationship with Arcadis, according to national law or its application
	Employee engagement score (eNPS)	The eNPS (Employee Net Promoter Score) measures our employee engagement. On a scale of -100 to 100, the eNPS score determines to what extent employees promote Arcadis as a place to work and therefore helps us ascertain how we are progressing on our journey to be an employer of choice
	Voluntary turnover rate	Voluntary termination of employees (see definition above) divided by the average number of employees during the period. A termination is voluntary when the decision for termination is made by the employee
	Identified leadership potential rate	Retention rate of employees who are considered to have top-level potential (A&B level)
	Females in total workforce	Number of women employed at Arcadis as % of total permanent and temporary own staff
	Total Recordable Case Frequency (TRCF)	The number of recordable injuries or illness per 200,000 working hours. An injury or illness is recordable if it is work-related and is medical according to the US occupational safety and health administration (OSHA) rules
	Lost Time Case Frequency (LTCF)	The number of lost-time injuries or illness per 200,000 working hours
	Employees passing Code of Conduct training	Percentage of employees that have passed the AGBP training and test. This training and test have the objective of increasing awareness of potential conflicts and dilemmas, guiding employees to make ethical decisions
	Number of AGBP alleged breaches (including near misses)	Number reported integrity issues related to the Arcadis General Business Principles
	Investigated AGBP alleged breaches	Number of investigated integrity issues relating to the Arcadis General Business Principles
	Group Effective Tax Rate over the past five years	Weighted average Effective Tax Rate (ETR) over the past five years. ETR: Taxes on income divided by Income before income taxes, excluding Results from investments accounted for using the equity method and the Expected Credit Loss on shareholder loans and corporate guarantees
	Number of appointed privacy officers (in the year)	Number of appointed privacy officers in the period by Arcadis
	Number of internal audits (in the year)	Number of internal audits performed in a calendar year. The objective is to assess the operating effectiveness of business controls and provide recommendations to remediate identified risks that could potentially impact the realization of strategic objectives
	Brand awarenss score	Arcadis' score of its media coverage against a competitor set of five
	Client experience score	Client satisfaction shown in a Net Promotor and Client Loyalty Score

Glossary financial & non-financial indicators

	Indicator	Definition
Innovation & Growth	Organic revenue growth	Year-on-year Net revenue change minus contributions from acquisitions in that period plus contributions of divestments in the previous period, minus exchange rate differences, and adjusted, if applicable, for nonrecurring items
	Book-to-bill ratio	Period net order-intake in Net revenues divided by the period Net revenues
	Organic revenue growth Global Key Clients	Organic Net revenue growth generated by our Global Key Clients program compared to last year. The Global Key Clients is a set of clients that is determined by Arcadis based on multiple criteria set by the Executive Board. The Global Key Clients for the year are determined before the year starts
	Organic revenue growth Global Cities	Organic Net revenue growth generated by our Global Cities program compared to last year
	% of revenues using BIM level 2	The Net revenue of Architecture or Design & Engineering projects, where more than one project discipline creates or collaboratively manages object-based information in a predefined way to have a single source of truth. Object-based is where a data set represents a physical real-world assets characteristic in a reusable form
	Arcadis Way implementation progress	Total of Net revenues for the year of the cumulative regions and/or countries that have migrated on to the Oracle software as part of Arcadis Way, divided by total Net revenues for the Arcadis Group
	Arcadis' carbon footprint	The amount of greenhouse gases produced by Arcadis' employees measured in metric tons of carbon dioxide per full time equivalent (FTE)
	Number of identified environmental non-compliances	Number of incidents in which Arcadis failed to meet environment related laws, regulations and standards in the execution of projects for clients
	% of revenues that relate to relevant SDGs	The percentage of total Net revenues that relate to SDGs deemed relevant for Arcadis, mapped on the basis of client value propositions
Focus & Performance	Gross revenues	The gross inflow of economic benefits during the period arising in the course of ordinary activities. Gross revenues of Arcadis consist of external revenues net of value-added tax, rebates and discounts and after eliminating sales within the Arcadis Group
	Net revenues	Gross revenues minus materials, services of third parties and subcontractors, which are project-related costs of materials and services charged by third parties, including cost of subcontractor. Net revenues entail revenues produced by the activities of Arcadis own staff
	Dividend per share	Dividends issued by Arcadis for every outstanding ordinary share
	EBITA	Earnings Before Interest, Taxes, and Amortization/Impairment of goodwill and/or identifiable assets
	EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization/Impairment of goodwill and/or identifiable assets
	Operating EBITA	EBITA excluding restructuring, integration, and acquisition related costs
	Operating EBITA margin	Operating EBITA as percentage of net revenues
	Net Income from Operations	Net income before non-recurring items (e.g. valuation changes of acquisition-related provisions, M&A costs, expected credit loss on shareholder loans and corporate guarantees and one-off pension costs), the impairment/amortization of goodwill/identifiable assets, and share-based compensations related to the Lovinklaan Foundation share purchase plan
	Net Income from Operations per share	Net Income from operations in the year, divided by the average number of ordinary shares in the year
	Net Working Capital	Sum of Contract assets (unbilled receivables), Inventories and Trade receivables minus Accounts payables, Contract liabilities (billing in excess of revenue) and Provision for onerous contracts
	Net Working Capital as % of gross revenues	Net working capital/Gross revenues of last three months of the year * 4
	Days Sales Outstanding (DSO)	(Trade receivables + Unbilled receivables - Billings in excess of cost - Loss provision) x 91 days)/Gross revenues of last three months of the year
	Return on invested capital (ROIC)	The sum of earnings before interest after taxes and income from associates divided by average group equity, amortized goodwill and net debt
	Net debt to EBITDA ratio (average)	Average net debt ultimo for the year/EBITDA. A measure of a Company's ability to pay off its incurred debt. This ratio gives the investor the approximate amount of time that would be needed to pay off all debt, excluding interest, taxes, depreciation and amortization
	Free cash flow	Cash flow from operating activities minus (dis)(in)vestments in (in)tangible assets and including lease payments

Other

AARC: Arcadis Audit and Risk Committee

ARC: Arcadis Risk & Control Framework

ASC: Arcadis Selection Committee

AGBP: Arcadis General Business Principles. A set of working ethics for our employees

Backlog: Value of signed orders in the portfolio to be filled, expressed as gross or net revenue

BIM: Building Information Modelling. A collaborative way of working, underpinned by digital technologies

CGUs: Cash Generating Units

Cash Flow Operating Activities: Profit for the period adjusted for non-cash items and cash flow from working capital

Defined Benefit: When the benefit on retirement from a pension fund to its participants is fixed

Defined Contribution: When the value of the contribution to the pension fund made by the company is fixed

ELT: Executive Leadership Team

GEC: Global Excellence Centers

Goodwill: The difference between the costs of an acquisition over the fair value of the identifiable net assets acquired

IFRS: International Financial Reporting Standards

Impairment test: An assessment on the value of an asset in use, whereby estimated future cash flows are discounted to reflect market conditions and the risks specific to the asset

Net cash position: Cash and cash equivalents minus Bank overdrafts

Net debt: Interest bearing debt minus all cash and cash equivalents

Operating income: Earnings before interest and taxes

Order intake: The amount of new projects for which contracts have been signed or orally agreed on, expressed in gross or net revenue

Peer group: Group of listed companies that is comparable to Arcadis both in size and activity

Percentage-of-completion: Method to recognize revenue and expenses in an Income statement in proportion to the percentage of completion of the contract

Proxy solicitation: Means to provide shareholders the opportunity to vote without being present at the shareholders meeting

RemCo: Arcadis Remuneration Committee

Total shareholder return: Stock price appreciation plus dividend yield

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