

Australia Edition

# RESILIENCE AS A COMPETITIVE ADVANTAGE

Business

# Foreword:



Financial resilience is a fickle thing. World growth has tumbled due to a worldwide pandemic very few people had predicted would ever occur or, if it did, quite so rapidly.

Australia is no exception. The country has entered its first recession in 28 years with failing businesses, high unemployment and negative GDP growth that is expected to last for some time.

Australia is doing better than most however, given low Covid-19 numbers, strong government stimulus policies, new investments in infrastructure, education and technology, and robust sectors like mining and agriculture that have held up relatively well.

But the pandemic has also given business resilience a new urgency. By bringing resilience to the forefront of business activities, companies stay vigilant to the impacts of market changes, whether these are macro-economic risks or seasonal and one-off major events such as COVID-19.

Resilience risks will always create new market needs and opportunities. Competitive advantage can be generated through implementation of resilience measures, including increased control and efficiency from the digital transformation of business assurance and construction processes.

Despite its negative impact the pandemic is providing a unique opportunity to embed enhanced resilience competencies within organisations, their assets and their people. By doing so, they will become financially sustainable and long-term market winners.



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# INTRODUCTION

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Covid-19 caught cities and economies unprepared, bringing with it widespread disruption to our way of life. Despite coronavirus warnings from health experts over time, the world had largely under-prioritised investments to mitigate the effects of a such a virulent pandemic.

With global lockdowns in place—for second times in many places like Melbourne—personal and business resilience have become intertwined. For companies that had only recently overcome the global financial crisis of 2008, business continuity and competitive advantage in a post-pandemic world is an ongoing challenge. Developing business resilience competence must be at the heart of this planning.

## **BOUNCING BACK**

Many of the regulatory checks and balances introduced following the global recession of 2008 have helped keep the international banking system intact. The resilience of the global economy will also depend upon monetary and fiscal stimulus by governments in U.S., Europe and China, with country specific initiatives in countries like Australia expected to soften the short term crisis while contributing to longer term growth.

But the pandemic has put globalisation at risk and political pressure may lead to more nationalist policies, threatening the fundamental ways the global economy currently operates. A widespread wave of protectionism would make the global economy less resilient and could, at least in the short-term, lead to an extended period of economic distress.

Rather than retrenching and looking inward, we believe that nations that continue looking beyond their borders will benefit the most. The short-term pressures on supply chains will dissipate and supply chain diversity—spreading the risk—is more likely to be the resilient, longer-term solution.

### RESILIENCE AND RISK

One of the ways out of the crisis is to embrace resilience thinking as an essential part of business strategies. Resilience is a core competency in all successful companies and is crucial to achieving and maintaining competitive advantage.



**Resilience means being able to survive, adapt and grow no matter the stress or the shock.**

In our 2019 report, *The business case* for resilience, we said resilience investment should be higher up the business agenda, recommending using financial modelling tools and resilient index frameworks to articulate its financial benefits. There is a clear link between resilience and financial return.

One tool for business resilience has always been risk-management, but the pandemic exposed the limitations of framing resilience solely around it. The World Economic Forum's (WEF) *Global Risks Report 2020* issued at the start of the year surveyed an "extensive network of business, government, civil society and thought leaders," to produce its Global Risks Landscape. A global pandemic did not even make their list of the top ten most likely risks in 2020.

New risk-management predictive tools are needed if businesses are to have robust resilience as one of its core competencies. Digital transformation to boost operational flexibility and provide increased options for risk management solutions is already here. For example, real estate assets – whether infrastructure or property – can be managed remotely.

We believe in a new wave of risk management techniques to reinvent work processes and asset management for

the physical assets supporting business financial health and competitiveness. Digitalisation will be at its core, helping risk-management become more fit-for-purpose and underpinning market success.

### RESILIENCE AS A COMPETENCE

Resilience means being able to survive, adapt and grow no matter the stress or the shock. It relies on two interlinked concepts: Robust—having strong enough plans, processes, people and supply chains to withstand varied and significant stress and shocks—and Adaptable—being able to flexibly change those systems and approaches in response to new circumstances or information.

This means companies must constantly monitor and analyse activities in order to make smart decisions earlier. Although there are defensive reasons to do this—to avoid costly disruptions—there are also activities that enable market competitiveness by remaining alert to the impacts of market changes. This requires an agile, incremental approach and the creation of a culture of adaptation and continuous improvement.

## RESILIENCE AND CULTURE

How can the private sector enhance financial and commercial resilience in the face of pandemics or any other future shocks?

One of the ways is by reshaping corporate cultures to encourage an environment of collaboration and trust, both within organisations and throughout supply chains.

**Decision makers within companies also need to develop a more sophisticated understanding of resilience.**



A consequence of the 2008 global financial crisis was that price efficiency became the primary selection criteria for many businesses, reflecting the need for organisations to do more with less. This transactional approach has pervaded most aspects of business, with supply chains often procured on short-term arrangements, maximum flexibility to the purchaser, and a focus on driving down prices.

As a business model, this only works if there is an excess of supply or low barriers to entry so that supply is easy to replenish. Similarly, supply cannot innovate or develop within such a transactional environment, resulting in a cycle of low productivity. Post-pandemic resilience must overcome the systemic risk in this business model, while also forging more collaborative relationships and greater transparency between organisations across the supply chain.

A positive culture of trust and openness with supply chains will increase the collective willingness to share performance benchmarks and data, and broader feedback on how to maintain business continuity in the event of supply chain shocks. The additional benefit from open collaboration is delivering incremental asset and business performance improvements.

Decision makers within companies also need to develop a more sophisticated understanding of resilience. Resilience is more than having spare production capacity, additional workforce availability, extra inventory or alternative

suppliers. It's also more than relying on your workforce going the extra mile or giving additional discretionary effort as-and-when failures occur. Discretionary effort is ultimately unsustainable.

It is better to invest in robust and adaptable systems that are reliable and more difficult to break. This is not easy and requires significant foresight and commitment throughout your supply chains. But there are levers that can be pulled to help in this journey that are cost effective and long term:

- Standardised and automated processes that have resilience designed into them
- A more skilled and adaptable workforce, well equipped to deal with uncertainty
- An employer/employee relationship based on mutual trust and a work environment that's more conducive to high productivity and innovation

As noted earlier, digital transformation of processes, production and analytics means these type of levers are ever-more accessible. It is probably the earlier adopters who will respond quicker to the new market direction from the bounce-back.

Creating such a positive culture also forges supplier innovation, helping digitalise processes, provide smarter materials and improve asset longevity generating significant CAPEX and OPEX efficiencies. Such steps significantly enhance an organisation's business continuity preparedness, inevitably making them more robust and adaptable to shocks and stresses.

# BUSINESS-CENTRIC RESILIENCE

Those organisations that experienced the SARS outbreak first-hand in 2002-2004 – especially global banks with a presence in Hong Kong and Singapore – proved to be better prepared than many for the impact of Covid-19. Their business continuity plans were also strengthened by changes to their business processes as a result of increased regulatory scrutiny following the 2008 financial crash. Consequently, there was a degree of preparedness with backup offices, trading floors in different locations, and regulatory approval already in place to ensure that employees could trade from home safely and securely.

For all organisations trying to navigate their way through the post-pandemic landscape, one of the most crucial activities is to revisit business continuity plans and understand the critical parts of the business – the people, the processes, the supply chains – that are essential for continued business operation. This needs to be a rigorous assessment that leads to a prioritised action plan so these critical elements are made as robust and adaptable as possible. Resilience questions to answer, post-pandemic, include:

- Are business continuity plans detailed enough to enable critical systems, operations and supply chains to function no matter the crisis, and are those plans being continually updated in response to changing business practices and conditions? Before the pandemic, many businesses were talking about digital twins, yet few put this into practice, but we now expect digital twins to become the norm for a resilient business.
- Can you improve reliability and performance? If your organisation is already designed for reliability and has a strong performance and customer service culture, then this is more likely to sustain you in shocks and disruption.
- Is there sufficient agility and flexibility in place – of people with the skills you need, in different locations – to ensure that business-critical functions can remain operational?
- How reliant are you on the availability of your people for critical processes to continue, or can digital tools reduce your reliance on physical availability? Can these digital tools also provide you with competitive advantage in your industry sector?
- Can you accelerate initiatives to reduce your demand for materials, reduce your environmental impacts and transition to more sustainable sources of energy?

These assessments will help organisations enhance their resilience as a result of having business continuity plans that focus on making critical systems, processes and supply chains as robust and adaptable as possible. Embedding resilience throughout all business activities will also enable companies to remain alert to the impacts of market changes, allowing them to respond in a way that leads the market and creates competitive advantage.

## HOSPITALITY

The hospitality sector suffered tremendous losses during the initial wave of COVID-19 and continues to face major challenges under varied business restrictions due to the pandemic and Melbourne's second lockdown.

Australia's hospitality sector has seen 70% of businesses reduce the hours of their staff, and 43% of business have made some workers redundant or placed them on unpaid leave, with about one in 10 saying they had paused trading altogether. Tourism has been hit particularly hard with the country losing \$2B a month each month since March from the fall in foreign tourists, while the domestic tourism market fell by nearly \$12B over April and May.

As the economy tentatively opens up again hospitality is likely to face higher costs to comply with new health rules, but lower revenue due to restrictions on capacity. It is imperative that owners and operators control costs in the short term, but where possible, digital tools should be adopted to increase efficiency and seamlessly integrate new protocols into day- to-day operations.

The sector will need to assess which assets can continue to be operated within an environment where challenges focus just as much on the building as on the business. Success will also come from rebuilding trust in the sector through security standards or certification.

If the hospitality business plan no longer works after testing the above, business resiliency will most likely come from re-purposing the assets—residential is the obvious asset class but healthcare facilities may also be considered. In this case the business resilience will be determined by both the structural and system flexibility of the asset for conversion into alternative use.



# BUSINESS CONTINUITY 101

For organisations to be resilient against future shocks – the known, unknown and unthinkable future events – there are clear commercial benefits to enhancing resilience across three domains:

- Resilience at the physical asset level;
- Resilience of financial markets;
- Resilience of the global supply chain.

## PHYSICAL ASSET RESILIENCE

Organisations have already begun asking questions about their physical assets – buildings, infrastructure assets, utility assets – including whether they are robust enough to withstand external forces like physical threats and rising temperatures, or regulatory changes.

Businesses need to adopt an additional level of scrutiny to track those market trends that will create new market needs. By tracking trends that impact physical assets, decisions can be taken that will enable market competitiveness.

Expertise is therefore needed around scenario planning, testing some of the many different futures that could emerge from this pandemic. For example, in the property sector tenants of large office buildings in commercial districts around the world are likely to face significant pressure to reduce their office footprint. Short term costs savings plus digitalisation and remote working may continue to drive down demand for expensive commercial space.

Tenants in a post Covid-19 world will also be more circumspect about their carbon emissions. They will view heavy polluting assets as a corporate liability, both in terms of attracting the best resources or managing their brand. In this example, physical resilience includes improving asset sustainability scores to a level accepted by tenants.

For asset owners, the market competitiveness challenge will be whether their assets are still relevant, or whether they will quickly become obsolete if and when business practices change following the world's emergence from the pandemic. The longer-term implications of the range of solutions and impacts upon the sector need to be explored, both for business continuity purposes and commercial resilience.

Some single-use assets will need to be repurposed into multi-functional spaces, and others will have their functions changed completely. This could include creating accommodation out of unused office space and transforming spaces into social infrastructure such as community health or testing facilities, or other services that are now deemed critical for society to function.



## NEW WAYS OF WORKING

### Remote supervision of construction sites

The COVID-19 pandemic has significantly impacted the construction industry, which is particularly dependent on having workers physically present at job sites. Public health measures in countries around the world have meant a drastic reduction in the numbers of workers allowed on sites, as well as workers' ability to travel to project locations. Starrag, an international manufacturer of high-precision machining centers for, among others, the aerospace industry, commissioned Arcadis to manage the geotechnical, civil and structural design as well as construction supervision for statically and dynamically highly loadable machine foundations for a client in Querétaro, México.

In March of 2020, the green light was given for the construction of a reinforced concrete foundation of around 300 cubic meters. When global travel restrictions were put in place to combat the coronavirus, Arcadis faced the challenge of providing the agreed-upon permanent on-site, construction supervision. To address the new reality, Arcadis installed a 24/7 livestream on the site, which could be monitored from around 9,500 kilometers away in Germany. The livestream delivers high definition video and sound. This, coupled with increased collaboration with civil engineers in México, allowed Arcadis to continue delivering results for the client. Construction is proceeding as planned, within the originally agreed-upon timeframe. Arcadis experts are able to follow and direct on-site activities and ensure the quality of the work being done.

## MARKET RESILIENCE

Out of any market shock, new needs emerge and drive the future direction of the marketplace. After the pandemic, financial resilience is clearly a challenge facing many organisations, but there are important steps to take.

One of them is to develop sufficient knowledge and insight on how the market, in terms of asset type and location needs, will change in the post-pandemic world. This knowledge is essential for investors who will use it to assess existing investments to explore how to adapt or repurpose them, and to make bets on future asset classes and locations.

Being able to exploit those market insights is what will lead to significant competitive advantage and it will take investment organisations to a more financially resilient space. For funds and developers, first-mover advantage really makes a commercial difference, providing the asset class and locations were correctly predicted.

Day-to-day, organisations will need to place greater focus on business assurance, and on the centralised control of business operations. This approach is already prevalent within many of the global banks, who have been moving towards this model since the 2008 global financial crisis. Digital transformation is crucial and already we have new tools for facilities management, leasing and corporate governance. These technologies provide asset owners and operators with more control over their data points, providing insights that can inform resilience-focused investment decision-making. They will also provide more certainty of outcome, which lowers the risk of investment.

With new data about rapidly changing, post COVID-19 tenant behaviours and needs, we believe there will be a new wave of digital market prediction tools developed in-house as a source of competitive advantage. In this case, market resilience will be dependent on internal capabilities for data analytics and digital processing tools, as well as the traditional real estate market professional.

Market resilience also involves testing the future direction of different industry sectors in order to plan and make investments in the future asset trends. As mentioned before, this will need to include insights into the future of commercial business districts and exploring how to enhance or replace these assets with mixed-used developments. It will also need to involve embracing new collaborative ways of working, particularly in the built environment space, where the industry has been under pressure for decades to improve efficiency and productivity and embrace modern methods of construction.

## SUPPLY CHAIN RESILIENCE

As the pandemic struck, supply chain resilience immediately became a hot topic due to the challenge of sourcing medical ventilators, testing equipment and personal protective equipment. The global supply chain for most industry sectors also quickly fractured as travel slowed and borders closed, and while that is now easing securing critical supplies and diversifying supply chains remains an issue.

## SUPPLY CHAINS AND LOGISTICS

Supply chains were already facing change prior to the pandemic. Costs had been rising due to the growing need for smaller, more expensive closer-to-city warehouses with increased storage costs in tandem with high utilisation rates of available delivery trucks and drivers operating at close to capacity.

The pandemic served to accentuate these issues. Extending waiting periods and a significant increase in collaboration between logistics companies enhanced the resilience of the sector, maintaining the flow of supplies. Post-pandemic, the logistics and supply chain sectors will need to maintain those collaborative links, but also accelerate the adoption of new technologies and drive forward further innovation within the sector.

The very low latency of new 5G mobile networks (up to 50 times more responsive than 4G data services) will enable autonomous driving vehicles to become a reality by allowing split-second decisions to be made and near-instant communication with EDGE/Cloud-Data Centres. The increased data capacity promised by 5G also promises greater supply chain visibility, allowing supplies to be tracked in real-time throughout their journey.

These logistics and supply chain changes will also be driven by changing demographics and growing sustainability concerns, leading the retail industry and its supply chains to re-think current processes for the whole industry.

**We believe that businesses must place people at the heart of their resilience planning if they are to maintain business continuity and commercial resilience.**



Organisations that have significant supply chains will need to be more forward-thinking and mitigate impacts well before they happen if they are to maintain market competitiveness. Because supply chains present a systemic problem—where failure in one location can affect projects in another—it requires systemic thinking and a much deeper understanding of the risks within each tier of supply chains.

Success in this will involve a greater degree of collaboration and genuine partnerships with major suppliers. This will give companies a better view of the financial health of critical suppliers and the risks they face, allowing them to make commercial decisions which can lead the market and enhance financial resilience.

### THE COMMERCIAL SECTOR CAN LEAD THE WAY

Businesses and investors in the commercial real estate sector have a significant role to play in helping the world close the gap between resilience planning and resilience implementation. Although we have yet to fully emerge from the COVID-19 crisis, it's critical to use

the pandemic as an opportunity to significantly enhance resilience in all the systems and asset classes that society relies on.

We believe that businesses must place people at the heart of their resilience planning if they are to maintain business continuity and commercial resilience. By understanding how end users are likely to want to live and work in future, assets and facilities can be adapted, repurposed or re-designed, and plans put in place to become more resilient in the face of changing market needs.

Digital tools will help in creating those plans and will allow them to be modified over time through constant monitoring and analysis. This increased knowledge of trends within the market will allow greater commercial and operational flexibility, bringing increased competitiveness.

Sustainability must also be placed at the heart of post-pandemic planning, driven by the demands of both investors and occupiers. Ultimately, embracing these measures will help create competitive advantage and help create value in the new marketplace.

# FRAMING THE RESILIENCE DISCUSSION

In our work with private and public sector clients around the world, we focus on the following five principles for enhancing resilience:



## PEOPLE

Societies, cities, communities, and organizations are only as resilient as their people. After the pandemic, we must focus on improving the health and wellbeing of the most vulnerable, and enhance the resilience of wherever they live, work or play.



## DESIGN

Resilience can be enhanced by embracing new resilience-conscious ways of designing and retrofitting buildings, facilities, and urban spaces in a post-pandemic world.



## PLANNING

Resilience thinking must be placed at the heart of business continuity planning. Collaboration must also be embraced, between communities, organizations, industry sectors and supply chains.



## DIGITAL

Digital tools and platforms are essential for gathering and analyzing data which can inform smart decisions that can ensure business continuity and lead to competitive advantage.



## SUSTAINABILITY

Resilience and sustainability go hand-in-hand. By implementing projects that improve sustainability performance, reducing resource consumption and protecting the environment, organizations enhance long-term resilience.



## People

In the post-pandemic ‘new normal’, resilience and competitive advantage will come from understanding how people will use and interact with the built environment.

**It’s vital to understand how commercial assets are impacting people.** By better understanding how people will actually use these assets in the post-pandemic world, market-leading investments can be made in those future asset classes, and existing assets can be imbued with the qualities that will make them appealing and in high demand in the future.

**Occupiers such as global banks will also quickly need to understand how their workforce wants to use office space,** and whether their facilities are resilient in the longer term.

**As changes are made to adapt or retrofit assets, create a culture of collaboration throughout supply chains to achieve true resilience.** Collaboration – particularly around risk and problem solving on contracts or in supply chains – will result in greater levels of business resilience, along with a higher standard of care and higher degrees of safety and quality.



## Design

It will be vital to transform building assets in order to match the future demand of the marketplace.

**Resilience will come from investing in assets that lend themselves to being easily transformed into different asset classes.** More adaptable assets are needed in order to unlock sustainable value.

**Building portfolios will need to be repurposed and adapted to fit the emerging ‘new normal’.** Resilience will come from understanding the asset types of the future and plotting how to get there. Future demands may mean assets will be mixed-use, highly adaptable and sustainable – energy and resource efficient, climate resilient and with sound environmental credentials.

**Developers will need to ‘build back better’.** Embrace sustainable design, lower resource consumption, adaptable spaces that can be transformed and adapted into different uses.



## Planning

Embed resilience into business continuity planning to make them as robust and adaptable as possible.

**Resilience will come from understanding the critical risks in your asset base and planning adaptable responses.** Crucially, the assessment must include how those assets will be used. For example, commercial business district asset classes may look very different in the future and are more likely to be mixed-use and more diverse.

**Environmental and social governance reporting should be integrated into long-term plans, reflecting the greater pressure for transparency that will come from investors and building occupiers.** Increasingly, institutional investors are requiring their investments to be made in demonstrably carbon neutral projects, or in assets which can be turned around to become environmentally sound.

**Develop resilience strategies and then move quickly to the implementation phase.** Don’t get caught in the strategic phase, as it is only through the delivery of projects that resilience will be enhanced. An adaptable approach to resilience, for example, will see the transformation of many assets into mixed use, residential, or an office.



## Digital

Accelerate digitalization throughout your business and operations to become more robust and adaptable

**Accelerate the adoption of digital tools to manage facilities, assets, and supply chains. Digital platforms generate data and insights that can be leveraged for competitive advantage.**

The insights created will enable owner-operators and investors to make smarter and faster decisions, based upon a more complete understanding of the condition and performance of facilities, assets and supply chains.

**Digital dashboards allow organizations to see risks much earlier in the process and give those issues attention when they're needed the most, particularly around global assurance and facilities management.** Risks are therefore more transparent, as are the actions taken to reduce those risks, including being better able to work with suppliers to manage those risks. Digital twins enhance resilience too, allowing organizations to replicate their physical assets, learn from them and manipulate them in the virtual space, before implementing in the real world.

**Digital due diligence can standardize investment decision making processes.**

By conducting due diligence activities digitally, all data on that process is categorized and stored digitally, allowing for robust analysis, and all of that digital information can be used in each phase of the commercial process, all the way through to asset management post-purchase. This increases resilience by enabling organizations to be more efficient, more transparent, and quicker to make investment decisions – which are all important differentiators within the marketplace.



## Sustainability

Embrace sustainability in order to gain competitive advantage and lead the market

**Long-term, investing in sustainability will make businesses and assets more resilient.** Sustainability is both a significant risk and a significant opportunity for investors or owner operators. By taking a proactive approach, early adopters will move ahead of the market. Improving environmental and sustainability performance of building assets will help attract and retain tenants and secure investment funding (investors will increasingly want greener portfolios).



**Be proactive in embedding resilience in the heart of your investments and operations of commercial business assets.**

Sustainability agenda is crucial to the resilience of those who invest in and operate commercial building assets. Start planning for carbon neutral targets now, as this will become a key factor in decision making from tenants or investors.

**Invest in skills to ensure workforce resilience and the sustainable growth of industry.**

By ensuring that workforces are able to keep and grow their skills, post-pandemic resilience will be easier, and will contribute greatly to the productivity of the industry.

**Lead the market by investing in sustainable communities, not just sustainable assets.**

The major global investment funds will move towards this, in large part because the climate change agenda will drive it. Resilience planning involves understanding where the market is moving towards and plotting how to get there. Integrate Environmental, Social and Governance reporting throughout to give tenants and investors greater transparency.

# CONCLUSION

As we emerge from the pandemic, it's crucial to place resilience at the heart of all business continuity planning. We would go even further and say that resilience and all it represents should be a core competence of the business, hard-wired into all business processes and assets that support it.

Proactively embracing resilience at the heart of an organisation will enable market competitiveness in the post-pandemic world. By remaining alert to the impacts of market changes and trends, new market needs can be tracked and predicted. Those who emerge from the pandemic as long-term market winners will be those who embed enhanced resiliency competencies within their organisation, their assets and their people.

It will be essential for organisations to work quickly to gain a true understanding of the critical systems, processes, plans and people that underpin their success, and then focus on making them as robust and as adaptable as possible. Physical assets—buildings, infrastructure assets, utility assets—need to be made robust enough to withstand external forces, physical threats, rising temperatures, while responding to regulatory changes which may arise in the post-pandemic world.

We must also not forget the human elements of resilience. Not only does resilience come from having a healthy and safe workforce—robust in health and adaptable in mindset—but commercial resilience will be enhanced by understanding how people will use your products, services and assets in the post-pandemic world.

It's vital that we seize this opportunity for change. At Arcadis, our experience shows that there is usually a short window of just a few years following shock events—floods, hurricanes, superstorms, terrorist attacks—within which greater steps can be taken towards increasing resilience. This is typically the timeframe within which business focus is aligned with a supportive regulatory or commercial environment, typically with increased access to sources of funding. In this case, based on a temperature check from clients, we believe change will happen within months.



Governments will be under pressure to act. Clients and consumers will determine the new needs, and within corporates, internal divisions will fight for limited cash. Change will come fast.

It is crucial that organisations move quickly to eliminate the gap between resilience planning and the implementation of projects that can make operations more robust and adaptable, using a clear value framework that can demonstrate the true benefits of embracing resilience, bringing competitive advantage.

Commercial organisations should now have the confidence to invest in the resilience of their people, assets, important operational systems and communities. It is time to move away from the notion that returns on investments in resilience are only obtained when and if a shock occurs, to a new state where it's understood that resilience—built on the qualities of robustness and adaptability—is an inherently valuable goal to pursue.

# About Arcadis

Arcadis is the leading global Design & Consultancy firm for natural and built assets. Applying our deep market sector insights and collective design, consultancy, engineering, project and management services we work in partnership with our clients to deliver exceptional and sustainable outcomes throughout the lifecycle of their natural and built assets. We are 27,000 people, active in over 70 countries that generate €3.3 billion in revenues. We support UN-Habitat with knowledge and expertise to improve the quality of life in rapidly growing cities around the world.

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