ARCADIS Design & Consultancy for natural and built assets

COVID-19 Recovery Solutions
Active Transport Support

As we move out of lockdown, cities must prepare to support social distancing on streets and reduced capacity on public transit. They must also assess if there is enough active transport infrastructure to support the increasing demand for walking and cycling. Find out how we can help here.

CHALLENGES

Cities are recovering from COVID-19 lockdown and travel demand is bouncing back. However, public transit systems will not be able to operate at full capacity for some time due to social distancing. Active transport infrastructure needs to roll out rapidly to accommodate the surging demand for walking and cycling. In addition, it is vital to reshape mobility habits preventing people from turning to personal vehicles after the pandemic. The active transport network will help with tackling air pollution and climate crisis in the long term.

SOLUTIONS

Identifying active transport network

Arcadis has brought our expertise in active transport from the Netherlands to many cities globally, and developed active transport network plans for cities in many countries, such as Los Angeles, USA; Bordeaux, France; Wuhan, China, etc. These plans included travel demand assessment and active transport infrastructure evaluation. These plans helped cities to identify where to create a connected network that would fulfill mobility needs and suit citizens' behaviors, as well as the definition of what is allowed by the current street conditions.

As the active transport network currently needs to be rolled out urgently, our experience will help cities to accelerate network identification and improvement planning.

Cycling infrastructure design

Arcadis has extensive experience in cycling infrastructure design from the team in the Netherlands, including dedicated bike lanes, bridges and highways, intersections, railroad crossings for bike lanes, integrated mobility hubs with bike parking garages, signage and wayfinding. Our team has been delivering best practices in cycling infrastructure design to many cities in the Netherlands, UK, Belgium and France.

OUR EXPERTISE

Identifying Active Transport Network
Active Transport Network Plan
Improvement Plan

Cycling Infrastructure Design
Bike Lane/ Bridge/ Highway/ Intersection Design
Bike Parking Garages Design
Signage and Wayfinding

Feasibility Studies and Policy Design
Feasibility Studies for New Modes
Safety Policy and Studies

Shared Micromobility Program Planning and Evaluation
Program Framework Setup
Performance Evaluation

Placemaking
Parking Facilities Planning
Urban Planning and Design
Crowd Management

Program Managing The Transformation Of Street Space
Budgets, Supply Chains, Time-frames Control
Stakeholders Engagement
Health and Safety

Transport Planning And Modeling
Data Analytics and Modeling
Transport Management Plan
Financial Analysis
Resilience Planning

ITS For Active Modes
ITS Planning and Design
System Integration and Operation

OUR EXPERTS

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Feasibility studies and policy design

As the demand for active transport increases and more formats of micromobility emerge, it is crucial to review the regulatory gaps to guide the safe usage of active modes.
The questions range from whether e-scooters should be allowed on the street and whether wearing helmets should be mandatory for certain modes; to whether light motorbikes should ride on bike lanes or motor vehicle lanes and how to reduce unsafe use of cellphones while cycling. Arcadis has helped authorities answer these questions in the past and will continue to help public entities guide the behaviors properly.

Shared micromobility program planning and evaluation

Shared micromobility such as bikes, scooters and mopeds have been essential modes of travel in many cities for some time. This is despite controversy around their safety since the day the shared program launched. Now that cities are thinking of starting or expanding the shared micromobility program rapidly, Arcadis brings in the knowledge from the existing program evaluation projects to help cities make sure the accessibility, curb space management, equity, and environmental impacts are looked after. It will help cities to accelerate the implementation effectively.

Placemaking

With initiatives such as Open Streets, Shared Streets, Complete Streets and Slow Streets in different cities globally, our designers utilize creative placemaking strategies to rethink and reshape the use of the urban environment. At Arcadis and CallisonRTKL, our experts have decades of experience in planning the public realm, maximizing the benefits of open space and designing human centric developments within urban environments across the globe.

Placemaking during the COVID-19 recovery means bringing goods and services to people and minimizing the risks of traveling; it strives to balance the needs of parking facilities, commercial activities and all forms of mobility, not only the vehicle; it also creates adaptable environments for local small businesses to survive and thrive. Our transdisciplinary services will help cities to achieve the greatest potential of the active transport network in mobility, placemaking and neighborhood revitalization.

Program managing the transformation of street space

The rapid transformation of street space for active transport at large scale is not usual business for local authorities and transport organizations. Arcadis is experienced in organizing complex and iconic programs in the built and natural environment. Our expertise in budgets, supply chains, health and safety, time-frames and stakeholder engagement will help our clients to manage complex work with a clear scope and the right strategy, ensuring the delivery of the spotlight project is no longer a daunting task.

Arcadis has helped cities project manage pop-up bike lanes; street transformation and traffic management for large events; and emergency responses before and during COVID-19.

Transport modeling and planning

The changing mobility demand and travel preference pose a question about what is the new normal. With more employers open to flexible working hours and working from home, the transport planning based on pre-COVID-19 modeling and observations will need to be updated. In addition, the equilibrium of public transit, active modes and cars is changing, the multi-mode modeling with the new behavioral change inputs will inform clients to allocate resources wisely.

Arcadis has skilled transport professionals who provide services including data analytics, walking and biking modeling, Mobility-as-a-Service Planning, transport management plan, feasibility studies, corridor and subarea planning, financial analysis, scenario planning and resilience planning.

Intelligent transportation system for active modes

Arcadis' teams of intelligent transportation system designers and traffic engineers have developed smart and customized strategies to help ease traffic congestion in the past. We worked with clients in all phases of the ITS lifecycle and different systems, such as a small closed-loop system or a distributed system controlling numerous intersections.

Now with the focus on active transport and social-distancing, Arcadis' teams can help clients to prioritize the active modes and optimize the infrastructure performance accordingly. Minimizing the time of pedestrians and cyclists congregating at intersections.

EXAMPLES

Cycling highway plan in Bordeaux, France
Bordeaux Metropolitan Government, 2018

The project was aimed at developing a high-quality cycling network in the city of Bordeaux. Arcadis conducted a study on the cycling traffic conditions of 11 km of roads around the city center. We prepared a cycling highway plan with innovative solutions to improve safety and user experiences.

Slow traffic network in CBD Wuhan, China
Wuhan Municipality, 2018-2019

Arcadis developed concept design and made policy recommendations to enhance slow traffic further. The plan proposed a walking and cycling network to replace car traffic with stakeholders' inputs. We helped Wuhan provide the top-class slow traffic network to its citizens and the city became a slow traffic leader in China.

Better cycling network in Los Angeles, USA
Los Angeles DOT, 2019-2020

The City of Los Angeles aimed to encourage the modal shift of residents and visitors in the Central City Sub-region. Arcadis identified potential cycling demand with community inputs, quantitative data analysis and modeling, and evaluated existing infrastructure conditions; helped the client prioritize infrastructure improvements.

Walkability and cyclability improvement around 8 railways stations in Scotland,UK
ScotRail, 2017

The plan identified routes to improve access, space for cycling infrastructure and bike parking, and signage to improve. It helped the client improve walkability and cyclability to get access to the stations, as well as minimize the pressure on the car parking space near railway stations.

Hickson road upgrade road safety audit in Sydney, Australia
Sydney Metro

The audit covered issues for all modes such as queuing across intersections, visibility at bus stops, cycleway radius curves and connection with the broader road network as well as pedestrian safety on side streets and crossings.

Evaluation of helmets for light motorbikes in the Netherlands
Dutch Ministry of Infrastructure, 2019

The study estimated the impact on safety, traffic flow and environment if wearing a helmet became mandatory for light motorbikes. The study included literature review, survey results from light motorbike users, and the quantitative analysis for the client to make the informed policy decision.

Shared micromobility and ride-hailing services evaluation in Washington, DC, USA
District DOT, 2019 – 2020

Washington, DC, is one of the first cities that started shared dockless bikes and dockless e-scooters programs in 2017. DDOT has acquired ridership data from the operators in 2019. Arcadis established the evaluation framework with the client and conducted the data analysis to review the performance of dockless bikes, e-bikes, e-scooters, Ride-Hailing vehicles in comparison with public transport.

ITS for bicyle traffic in the Netherlands
Dutch Ministry of Infrastructure, 2015-2016

Arcadis explored smart and innovative ITS solutions to detect cyclists and prioritize cycling traffic with the municipalities of Rotterdam, Utrecht, Amersfoort and others in the Netherlands.

For more information, please contact one of the Arcadis experts.

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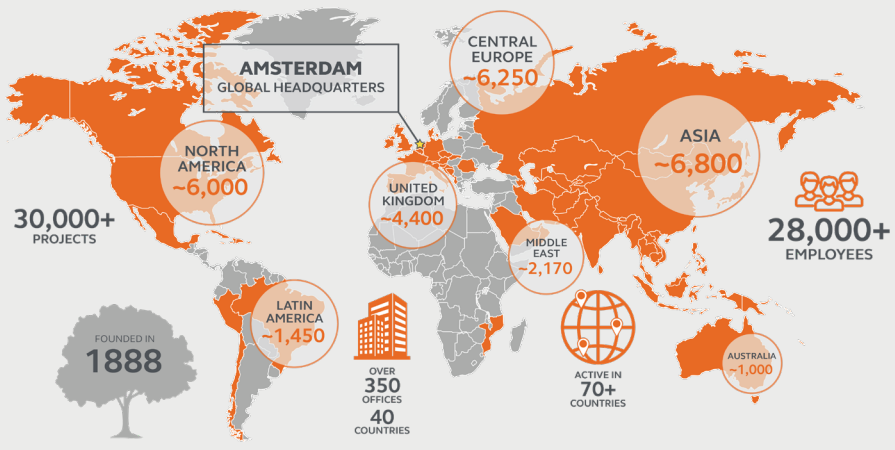

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