SWARCO

FUTURE OF MOBILITY

MOBILITY MANAGEMENT SOLUTIONS FOR TOMORROW'S CHALLENGES





With modern mobility Management solutions

Cities around the globe are struggling with disruptive change in the world of mobility management. Urbanization, limited space on our roads, shared mobility growing faster than ever, as well as lack of cross-domain integration, connectivity, and resources are some of the most critical topics according to over 400 cities we interviewed worldwide. Out of these interviews, SWARCO identified ten problem statements which are critical bottlenecks for cities to reach their goals.

- 06 Urban traffic congestion
- 07 Poor air quality
- 08 Budget constraints
- O Staying on top of innovation
- Scarcity of parking spaces
- 12 Increasing safety for VRUs
- 14 Lack of skilled resources
- 16 Lacking interoperability of systems
- 17 Interurban traffic congestion
- Road user safety on highways & in tunnels

This brochure addresses these bottlenecks and presents SWARCO solutions, co-developed with cities, to tackle these problems. Let your traffic flow and improve the quality of life for your citizens.







TRAFFIC CONGESTION

THE PROBLEM

- · Congestion in cities around the globe increases travel times by 25-60%.
- · Every hour lost has a social cost of about €15, which adds up to many millions of euros per city per year.
- A driver spends the equivalent of 148 hours per year stuck in day-to-day traffic jams.
- · Congestion leads to an increase in the number of traffic accidents.

WHAT DOES THE **FUTURE LOOK LIKE?**

- Building more roads will lead to an increase in traffic.
- · Urbanization will result in more movement in less space and by 2030 the populations in cities will increase by 35%.
- Every year more than 3 million cars are added to the existing car fleet in Europe alone.
- Road authority policies are becoming more complex as a result of the changing state of daily traffic and the long term increases in vehicle numbers.

CURRENT LIMITATIONS TO REDUCING CONGESTION

- Limited space
- A shortfall in the number of open platforms
- Outdated traffic management systems
- Not enough integration and connectivity
- · Siloed systems limiting holistic views
- A shortage of proactive mobility management
- · A lack of adaptivity in a suitable level of granularity



DATA COLLECTION

TRAFFIC DATA, THIRD-PARTY DATA - APPS, FLOATING CAR DATA, PARKING DATA



DATA VIZUALIZATION PROCESSING & STORAGE





CONTROL, REROUTE & INFORM **SPEED ADJUSTMENT** TRAFFIC ENGINEERING

THE SOLUTION

The solution to solve the problem of traffic congestion starts with data. SWARCO's eco-system of mobility with deep integration of all types of data sources allows you to collect and analyze data coming from traffic sensors, floating car data, apps, 3rd party data, as well as parking data, and more.

The data collected from connected devices is sent to SWARCO's mobility management system, where it is stored, processed, and analyzed. The data is visualized in real-time as well as offering different reports to get an overview of what is happening on your city's streets

and roads, which will help you improve traffic flows and plan future investments. This includes real-time alerts of equipment failure and performance analytics.

Once you have an overview of the traffic conditions, you can perform a number of automated, scheduled or manual actions designed to ease congestion. For example, adaptive network control automatically predicts and adjusts traffic signal controls to maximize throughput and reduce traffic jams when it is known that traffic will be extra heavy, for instance during a major sporting event. Drivers

can also be re-routed and directed away from congested areas to avoid traffic jams. Roadside speed controls can be adjusted automatically to optimize traffic flows through busy areas. Manual actions can be performed as and when they are needed, like in response to an accident.

The constant feedback from our mobility management system means you can see the results of these actions in real-time, so you know they are doing what they are supposed to do: improve traffic flows through your city's roads and streets and reduce congestion.





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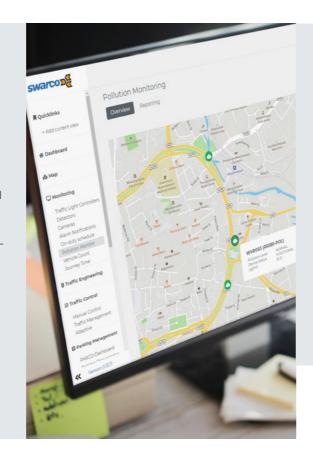
THE PROBLEM

- · Air, noise and light pollution are associated with an increased risk of strokes, heart disease, lung cancer and chronic and acute respiratory diseases, including asthma.
- Outdoor air pollution is linked to 3.4 m deaths per year globally.
- 97 % of cities in low and middle-income countries fail to meet World Health Organization (WHO) air quality guidelines.
- 49% of cities in high-income countries feel to meet WHO air quality quidelines.
- · Apart from the devastating human cost, the financial cost equals roughly €1 trillion per year.

HOW DID IT GET SO POLLUTED?

- Rapid urbanization: by 2030, the average population in cities will increase by 35%.
- · Increase in vehicle numbers: every year more than 3m vehilces are added to the car fleet in Europe alone.
- Day-to-day traffic: transport accounts for 30% of all pollution. This is estimated to increase to 60% by 2050.
- · Searching for a parking space: the average time to find a space is roughly 8 minutes, which in some cities results in an additional 730 tonnes of CO2 emissions.

Pollution was once an acceptable by-product of urbanization, but not anymore.



THE PROBLEM

- An investment of approximately 14% of the global GDP is needed to put the right infrastructure in place.
- · Meeting the sustainable development goals requires the use of cost-cutting technologies and solutions.
- · Complex, customized developments with a lack of modularity are slowing down the implementation of the strategies that are needed and adding an unnecessary financial burden.
- · City infrastructures are increasingly lagging behind new digital infrastructures to the point where they are

WHAT DOES THE **FUTURE LOOK LIKE?**

incompatible.

BUDGET CONSTRAINTS

- The global charging network is going to need an investment of US\$300 billion by 2030 to accommodate the expected growth of EVs.
- · Rapid urbanization: the average population in cities will increase by 35% by 2030.
- · Modernization of the infrastructure to enable connectivity and data exchange is a prerequisite of the transition to green and smart cities.
- · A transition to sustainable mobility

CURRENT LIMITATIONS

could deliver savings of US\$70 trillion

- · Large, up-front payment to permanently purchase the software is a major obstacle.
- 12+ months and high costs for external services to select a vendor. as well as long-term commitments to static solutions
- Mobility has moved up the agenda as a result of pandemic-related budget shortages
- · Lack of data sharing capabilities via APIs; 3rd party integrations; flexibility due to vendor lock-in.



ONE-OFF-PURCHASE, HYBRID, MODULAR SUBSCRIPTION









MODERN MOBILITY SYSTEM

ECONOMICALLY SUSTAINABLE HARDWARE

OPEN AND PLATFORM APPROACH LEADING TO FUTURE-READINESS AND PREVENTING

THE SOLUTION

Our customers' budgetary constraints are a reality, which is why we created inclusive and flexible pricing structures, including a one-off purchase, a secure cloud-based subscription, or a hybrid of the two. For example, it is possible to have a combined hybrid variant, a one-off pricing structure that includes ongoing maintenance services. There is also a "try and buy" offer allowing you to explore certain functionalities and purchase only what you actually need.

We have also abandoned the need to make an expensive investment in a fixed system and therefore developed SWARCO's eco-system of mobility with deep integration of all types of data sources. The mobility management system

allows you to grow and accommodate new technologies, e.g., generate revenue via e-charging and parking fees to offset investments. The modular system integrates micro, macro, and cross-domain software, enabling you to start small, add new features when needed, and only pay for the features you use. And as we use an open platform, you are not locked into purchases from a single vendor.

All software features, whether air quality monitoring, parking, traffic management, or interurban solutions, are operated via a single platform. You save time and money because the different functions do not have to be installed and handled via separate systems. Additionally, SWARCO as a contractual aggregator for easier data sharing and processing when working with 3rd party integration. The cloud-based system is backed by a dedicated IT security team to protect and maintain it, this cloudbased system, which saves time and, in the long-term, also money for you. Customer cost benefits have also been built into SWARCO's hardware, which is designed to be economical to use and long-lasting, minimizing the total cost of ownership. Our offerings are also fully integrated, not needing costly customizations and integration efforts. SWARCO offers additional services such as automated maintenance, reducing your staffing cost.

supports you with services such as acting

THE SOLUTION

The first step towards the solution of improving poor air quality is to collect all relevant data on pollution levels: data on climatic conditions, data from environmental sensors, and data from weather stations. SWARCO's eco-system of mobility with deep integration of all types of data sources allows you to connect environmental data with data coming from traffic sensors, floating car data, apps, 3rd party data, as well as parking data, and more.

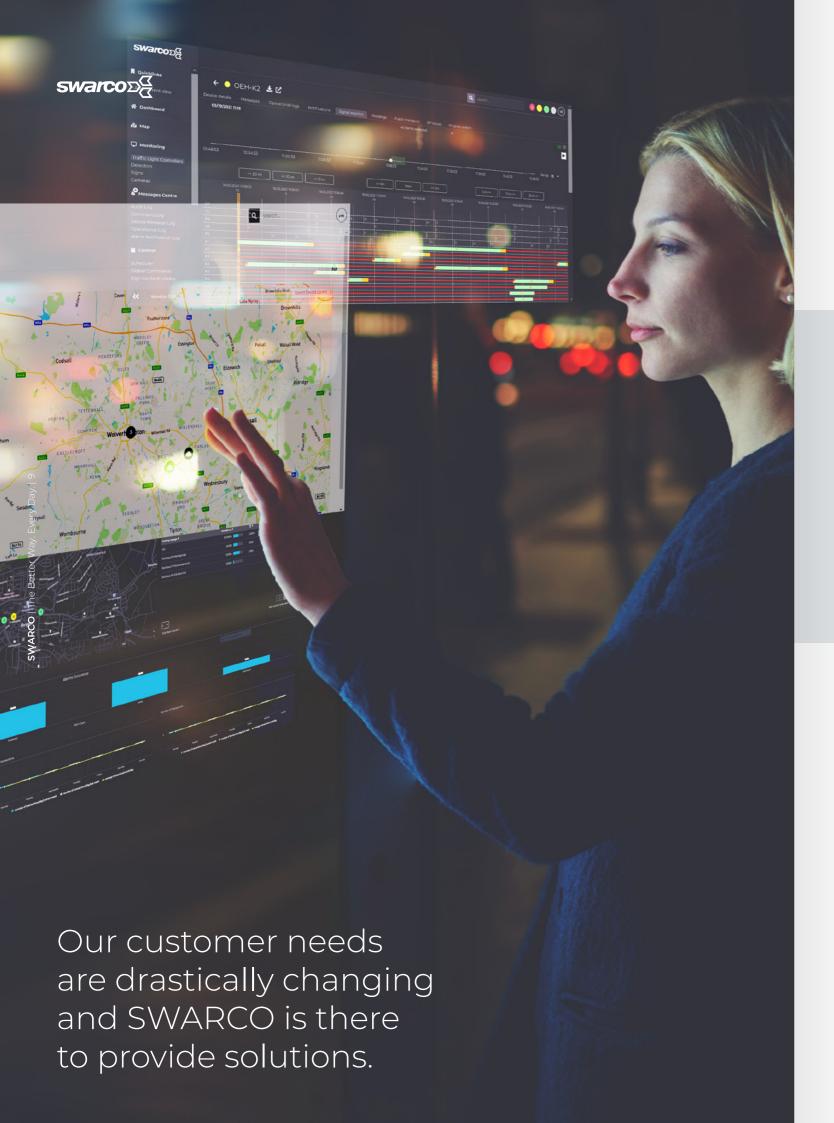
The data is then stored and processed via our mobility management system before being analyzed to get a picture of the current air quality in and around your city. The analysis will clearly visualize

the situation in your city, identify polluted areas, and support you with actions you need to take to reduce air pollution. You will receive immediate alerts and notifications when pollution levels for CO₂ or NOx are too high. The mobility management system also automates certain actions to prevent the build-up of pollutants in the future.

For example, you can use adaptive network control to make the traffic signal green time in the suburbs shorter for cars entering the city to reduce traffic jams in the center. You can also re-route traffic and steer it away from areas that are already congested. Since high speed levels cause high CO2 emissions,

vou can control and optimize traffic speeds and limit pollution that way.

SWARCO's mobility management system also enables you to display real-time data. This can be very useful in cities where congestion and pollution charges are in place. The tolls can be dynamically adjusted when and where necessary to reflect the current environmental conditions. Some cities are aiming to promote themselves as green cities and can use the real-time air quality data to demonstrate the results publicly. This can be very beneficial for your city and result in attracting more businesses and investment.



STAYING INNOVATION

SWarcoD

THE PROBLEM

- Urban infrastructure isn't optimized for micro mobility
- Technological innovation is outpacing the traffic management industry
- Many national or international innovation programs don't focus on individual customer needs
- Implementation of AVs is challenging for cities
- · Within just four years, e-scooter services have expanded into 626 cities in 53 countries.
- · Micro mobility utilization increased by 60% in just one year.

- The EU requires cities to improve public transport and support walking and cycling through infrastructure improvements.
- The goal is to have a zero emissions fleet by 2050.
- The EU will facilitate EV charging by installing 1 million charging stations by 2025.
- 95% of new vehicles will have connectivity functions by 2030.
- Increasing complexity and decreasing product life cycle needs a different approach.

- · Budget constraints.
- Limited knowledge and expertise at consultancy agencies on innovations.

THERE IS A LACK OF:

- · digitization of traffic data (speed limits, roadworks, etc.);
- · open platforms;
- · integration with 3rd party providers.

DATA COLLECTION

HIGH RESOLUTION TRAFFIC DATA, THIRD-PARTY DATA, **ENVIRONMENTAL DATA**











STEP BY STEP

MODERN MOBILITY

OPEN ECOSYSTEM ALLOWING TO INNOVATE

THE SOLUTION

The first step towards bridging the gap between the technology used by the traffic management industry and the rapidly -changing urban mobility innovations we are seeing is to collect all relevant data. SWARCO's eco-system of mobility with deep integration of all types of data sources allows you to connect environmental data with data coming from traffic sensors, floating car data, apps, 3rd party data, as well as parking data, and more. This open eco-system that accommodates innovation step-bystep, is available via a range of inclusive pricing models, including a one-off

purchase, a modular subscription, or a hybrid of the two.

The modern mobility management system has been specifically designed and developed to evolve in order to cope with emerging technologies and changing mobility needs. The modular system integrates micro, macro, and cross-domain software, enabling you to start small and add new features when needed. All solutions are operated through one open platform, preventing vendor lock-ins. This means you can build your mobility management technology incrementally in direct response to new innovations or changing needs, such as the desire for more bicycle use. the widening EV infrastructure, or the rapid growth of e-scooter usage.

Our solution will facilitate your transition to a smart city and enable a Mobility-as-a-Service approach for a holistic view of your mobility management. It will help to grow, evolve, and keep pace with changes in urban mobility technology and play an important role in making your city ready for the future.

THE SCARCITY OF PARKING SPACES

THE PROBLEM

- 30% of vehicles are cruising for parking spaces.
- In some cities, searching for a parking space takes on average 8 minutes, resulting in 95,000 hours per year of wasted time.
- Los Angeles drivers waste 95,000 hours and 47,000 gallons of fuel searching for parking every year.
- The numbers of cars is expected to rise to two billion by 2040.

- In London, 50% of the city's land is used for roads and parking.
- 8,000 hectares are used for parked cars in London.
- Cities struggle with managing parking policies and pricing.
- Many municipalities rely on revenue from parking.
- Parking is treated as a siloed topic and current parking solutions can't be connected to overall traffic management solutions.

guide it to the nearest available parking.

 Parking and traffic management systems are on different platforms.

THERE IS A LACK OF:

- digital solutions for efficient parking space management;
- integration to 3rd party systems (E.g., city app);
- · open platforms;
- efficient parking pricing management tools.

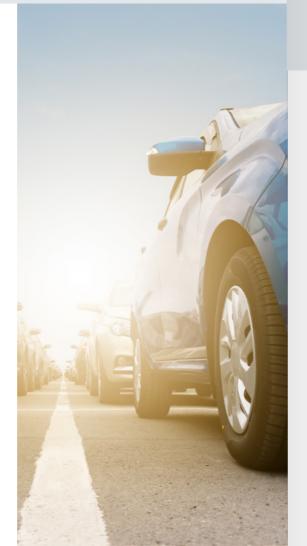
THE SOLUTION

The first step towards tackling the scarcity of parking spaces is to collect all relevant data, especially parking data, to get an idea of occupancy levels and traffic event data to fully connect the parking experience with the moving vehicles inand outside the city. SWARCO's eco-system of mobility with deep integration of all types of data sources allows you to do exactly that. Connect parking data with data coming from traffic sensors, floating car data, apps, 3rd party data, and more.

The data is then stored and processed before being analyzed to get a picture of the current parking situation in and around your city. As well as providing alerts and notifications of equipment failure, the analysis and data visualizations will indicate what action you need to take and where there might be problem areas.

Parking and traffic operators can now work from one single platform, in different views and accessing different functions to holistically manage search traffic and

The parking guidance system works both for on- and off-street guidance via digital signs or via apps that help drivers to find, book, and pay for parking. Parking operators can also set pricing, manage transactions and invoices, and configure and adjust virtual parking zones. The modern mobility management system has been specifically designed and developed to evolve in order to cope with emerging technologies and changing mobility needs. The modular system integrates micro, macro, and cross-domain software, enabling you to start small and add new features when needed. All solutions are operated through one open platform, preventing vendor lock-ins. This means you can incrementally build your mobility management technology in direct response to new innovations or changing needs, e.g. connecting and managing EV charging points supporting the environmental needs of your city. Connect engineering tools to it and plan vour future investments.





SWarcoD

THE PROBLEM

- · Limited road capacity, combined with increasing traffic, leads to unsafe situations
- 1.35m people lose their lives in traffic accidents worldwide every year.
- 50m road users are injured every year.
- · Traffic fatalities could reduce GDP by up to 5%.
- · Reducing traffic fatalities could increase GDP by 22% over two decades.

DATA COLLECTION

TRAFFIC EVENT DATA,

THIRD-PARTY DATA -

APPS, FLOATING CAR DATA

THE SOLUTION

Looking after the well-being of vulnera-

ble road users (VRUs) should be a pri-

ority for all cities, but with more people

and more traffic vying to use the same,

limited amount of space, accidents are

a tragic inevitability. The first step to

from all relevant sources.

mitigate this problem is to gather data

SWARCO's eco-system of mobility with

deep integration of all types of data

sources allows you to connect VRU

detection with data coming from traffic

party data, as well as other event data.

sensors, floating car data, apps, 3rd

This data is stored, processed, and

- 22,700 lives were lost in the EU in 2019, with a further 1.2m road users injured.
- Romania had 9.6 traffic fatalities per 100,000 population (highest rate in the EU).
- Norway has the lowest fatality rate with only 2 per 100,000 traffic fatalities.
- More than 20% of the fatalities were pedestrians. Existing infrastructures don't always

favor VRU, leading to social exclusion

 City planners and authorities should continually look to minimize accidents and fatalities.

· Focus is on managing motorized traffic.

· Limited space for all travelers to share.

• Limited information to support VRU's.

· VRU's need a large portion of

intersection capacity.

· Lack of integration of detectors for cyclists, pedestrians & e-scooters.







DATA VIZUALIZATION

& STORAGE

visualized to enable you to take the

right actions to protect the VRUs. For example, warn drivers about dangerous situations, e.g. cyclists in the dead angle, via digital signs or a car dashboard or app. With early detection of VRUs and adaptive traffic control, you can also limit red-light negation or re-route trucks

from city centers by giving them priority

been specifically designed and developed to cope with the changing makeup of road traffic, including the rapidly increasing number of VRUs. The modular

WARNINGS & ALERTS, ADAPTIVE TRAFFIC CONTROL, PRIORITY

ACTIONS

at the main corridors. The mobility management system has

system integrates micro, macro, and cross-domain software, and all solutions are operated through one open platform, preventing vendor lock-ins. This means you can incrementally build your mobility management technology in direct response to new innovations or changing needs, such as the desire for more bicycle use or the rapid growth of e-scooter usage. Detailed visualization into your urban mobility eco-system helps you to understand the result of your efforts and plan the investments needed to protect

PROCESSING

4年二十五十四日

LACK OF SKILLED RESOURCES

THE PROBLEM

- 25% of traffic fatalities, and roughly 50% of traffic related injuries, occur at intersections
- Signal management activities focus on reacting to public complaints, preventative maintenance and retiming.
- Signal phases: only updated every 3-5 years.
- Manual analysis of signal performance: inefficient and prevents signal performance optimization.
- Lack of engineering: there are too few engineers to complete large-scale investments of local, national and international importance.

TRANSPORTATION DEPARTMENT LEFT AS SCAPEGOAT

- Citizens complain, but manual analyses and strategy developments take too much time.
- Lack of proactivity and deep understanding.
- Too few people for constant monitoring.
- Connected ecosystem: introduces new requirements
- Increased complexity: including privacy and security

CURRENT TOOLS DON'T SUPPORT TODAYS NEEDS

- In-depth analysis missing from central traffic management systems.
- Lots of maintenance required
- Slow response time when immediate action is required, such as equipment failure or unexpected events like an accident or flooding.
- Current practices for many cities rely on manual techniques

THE SOLUTION

The first step towards tackling the lack of skilled resources is to collect all relevant data. SWARCO's eco-system of mobility with deep integration of all types of data sources allows you to automate and optimize your workflows.

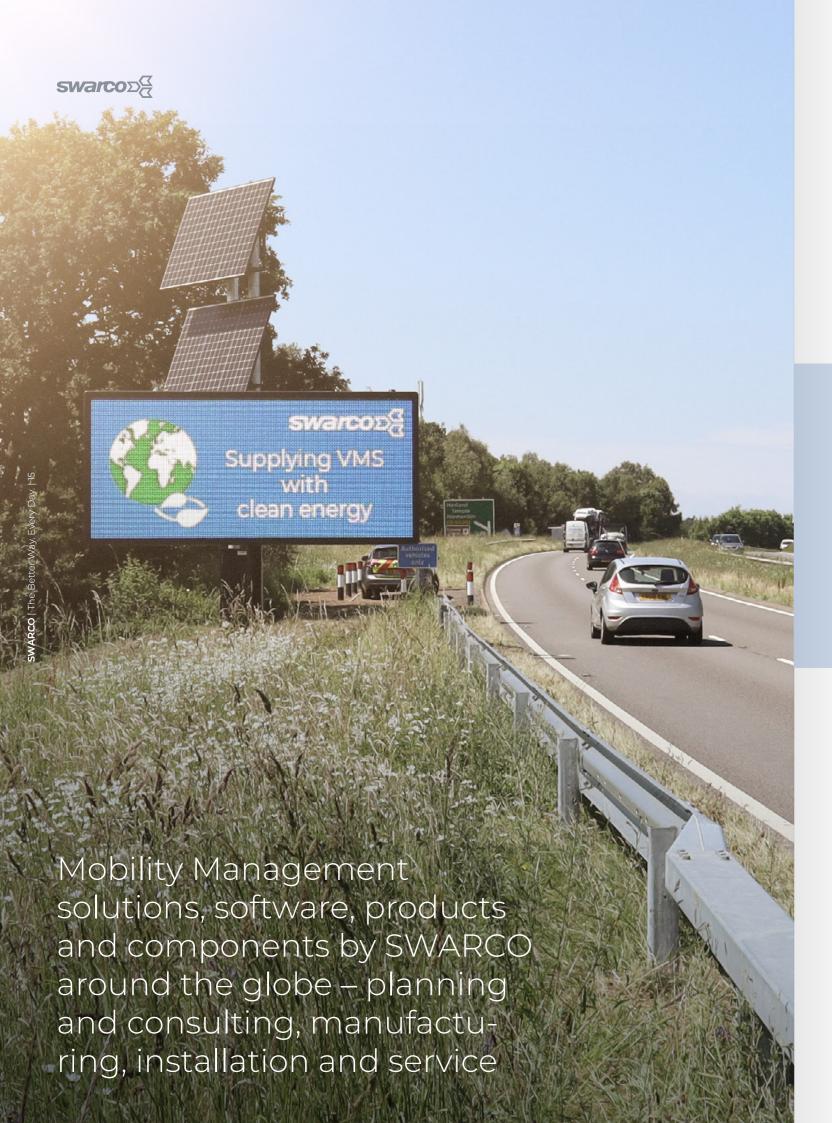
The data is then stored and processed via SWARCO's mobility management system before being analyzed to get a picture of your city's current traffic signal performance status. The automated and in-depth analysis will quickly and precisely indicate the problem

areas. This solution transforms the typical report-centric user experience by automatically monitoring signal performance and only notifying operatives when action is needed. As the system is automated, you will benefit from cost savings, and you will be able to make plans that use your precious resources more effectively.

These plans could include, for example, automated or manual signal changes to improve traffic flows in busy areas. Similarly, you could plan to use signal

changes to re-route traffic when you know in advance that traffic flows will be heavy at certain times and places, like during a major sporting event. Signal changes can also be used to regulate traffic speeds to improve traffic flows and reduce CO2 emissions by slowing down vehicles on your city's roads.

SWARCO's traffic engineering tools support you to plan, simulate, test, and evaluate your efforts and provide you with guidance on managing your resources efficiently.



LACKING INTEROPER-SYSTEMS

SWarcoD

THE PROBLEM

- · Limited road capacity, combined with increasing traffic, leads to unsafe situations.
- 1.35m people lose their lives in traffic accidents worldwide every year.
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- · Traffic fatalities could reduce GDP by up to 5%.
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- Romania had 9.6 traffic fatalities per 100,000 population (highest rate in the EU).
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- · More than 20% of the fatalities were pedestrians.
- Existing infrastructures don't always favor VRU, leading to social exclusion.
- VRU's need a large portion of intersection capacity.

- Focus is on managing motorized traffic.
- · Limited space for all travelers to share.
- · Limited information to support VRU's.
- City planners and authorities should continually look to minimize accidents
- · Lack of integration of detectors for cyclists, pedestrians & e-scooters.

DATA COLLECTION

HIH RESOLUTION DATA, **CONNECTED WITH THE INFRASTRUCTURE & PLANT** MANAGEMENT SYSTEM







& STORAGE





CYBERSECURIT

MODERN MOBILITY SYSTEM PROCESSING

INKLUSIVE PRICING MODELS CONNECT INTERURBAN, URBAN & PARKING EXPERIENCE

THE SOLUTION

The first step towards bridging the gap between the technology used by the traffic management industry and the rapidly changing mobility innovations we are seeing is to collect all relevant data. SWARCO's eco-system of mobility with deep integration of all types of data sources allows you to connect cross-domain applications. Infrastructure and plant management systems can now be combined with high resolution, real-time traffic data, floating car data, apps, 3rd party data, as well as parking data, and

This open eco-system that accommodates innovation step-by-step is available via a range of inclusive pricing models, including a one-off purchase, a modular subscription, or a hybrid of the two. It has been specifically designed and developed to evolve in order to cope with emerging technologies and changing mobility needs. The modular system integrates micro, macro, and cross-domain software, enabling you to start small and add new features when needed. All solutions are operated through one open platform, preventing vendor lock-ins. This

means you can incrementally build your mobility management technology in direct response to new innovations or changing needs and connect interurban, urban, and parking experience.

This solution will facilitate your transition from siloed traffic management to an intermodal approach and Mobility-as-a-Service model. It will help you grow, evolve, and keep pace with changes in mobility technology and play an essential role in making your roads ready for the future.

TRAFFIC CONGESTION ININTERURBAN ARFAS

THE PROBLEM

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DATA COLLECTION

HIGH RESOLUTION REAL TIME TRAFFIC DATA, FCD, IN-VEHICLE DATA, CONNECTED WITH THE INFRA-STRUCTURE & PLANT MANAGEMENT SYSTEM











DATA VIZUALIZATION

PROCESSING & STORAGE. REAL TIME TRAFFIC **MONITORING & CONTROL**

REPORTING TO ANALYZE IMPROVEMENTS

□

ACTIONS REROUTE & INFORM SPEED HARMONISATION DYNAMIC TRAFFIC CONTROL

THE SOLUTION

The solution to solve the problem of traffic congestion in interurban areas starts with data. SWARCO's eco-system of mobility with deep integration of all types of data sources allows you to connect cross-domain applications. Infrastructure and plant management systems can now be combined with high resolution, real-time traffic data, floating car data, apps, 3rd party data, as well as parking data, and more.

The data collected from connected devices is sent to SWARCO's mobility management system, where it is stored, processed, and analyzed. The data is

visualized in real-time as well as offering different reports to get an overview of what is happening on the highway, in the tunnel, and in the city, helping you reduce traffic congestion and plan future investments. This includes real-time alerts of equipment failure and incident management.

Once you have an overview of the traffic conditions, you can perform a number of automated, scheduled, or manual actions designed to ease congestion. For example, adjust the speed limit to ensure an optimized traffic flow along critical

corridors, re-route traffic, warn about road works or evaluate controls based on current standards. Alternatively, manual actions can be performed as and when they are needed, like in response to an accident

The constant feedback from our mobility management system means you can see the results of these actions in real-time, so you know they are doing what they are supposed to do: improve traffic flows through your road and streets and reduce congestion.

INCREASING ON HIGHWAY & TUNNFIS



THE PROBLEM

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- · VRU's need a large portion of intersection capacity.
- Focus is on managing motorized traffic.
- · Limited space for all travelers to share.
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- City planners and authorities should continually look to minimize accidents and fatalities.
- · Lack of integration of detectors for cyclists, pedestrians & e-scooters.

THE SOLUTION

Looking after the well-being of their road users should be a priority for all cities. The first step is to gather data from all relevant sources. SWARCO's eco-system of mobility with deep integration of all types of data sources allows you to connect cross-domain applications. Combine the data from infrastructure and plant management systems with data coming from traffic sensors, floating car data, apps, 3rd party data, as well as other event data. This data is stored, processed, and visualized to enable you to take the right actions to reduce accidents, especially in combination with road works.

The real-time incident detection lets you steer traffic and convey to road users

on highways and in tunnels dynamic information in line with the current traffic situation. Warn road users about dangerous situations, warn drivers about upcoming road works in the dashboard or via digital signs, reduce speed around road works or close lanes, roads and tunnels in case of incidents.

You can also add a Weigh-In-Motion (WIM) system to weigh passing trucks on the highway to preselect vehicles with overloads. The vehicle is detected, before programmable VMS display the corresponding license plate number and prompt the vehicle to exit the carriageway. At the checkpoint, it is weighed by calibrated truck scales.

This open eco-system that accommodates innovation step-by-step, has been specifically designed and developed to evolve in order to cope with emerging technologies and changing mobility needs. The modular system integrates micro, macro, and cross-domain software, enabling you to start small and add new features when needed. All solutions are operated through one open platform, preventing vendor lock-ins. This means you can incrementally build your mobility management technology in direct response to new innovations or changing needs, connecting interurban and urban domains.

The SWARCO INNOVATION HUB is a novel initiative to foster the ties between corporations, cities, industry associations, academia and research institutions in shaping together future mobility.

OUR AIM IS TO CREATE AN ECO-SYSTEM BASED ON LEARNING AND INTERACTION AMONG STAKEHOLDERS THAT WILL ENABLE US TO ADDRESS IN THE BEST POSSIBLE WAY THE NEEDS OF THE USER AND COMMUNITY.

WHAT'S IN FOR YOU AS A PARTNER IN THE LIGHTHOUSE PROGRAM?

Our Lighthouse Program offers you a unique, free-of-charge opportunity to strengthen your bonding with SWARCO. You will have a headstart in innovative developments in our group. You will benefit from exposure in the innovation community, network with other stakeholders, be an early tester of practical prototypes and can become a co-creator of innovative solutions that really fit your needs in shaping modern mobility.

4 CLUSTERS OF INITIATIVES TO:

- Combine Passive (Information based) with Active (Interaction based) approach to develop Customer Intimacy
- · Achieve the right balance between Future Vision and Practical/ close-to-market innovation
- Promote Innovation Roadshows in coordination with local Business Development for increased scalability (best practices) /visibility (living references) of results
- Continuous customer connection to Promote SWARCO as an Innovation Excellence Company and get early feedback on new ideas
- Ultimately, Call our customers "To Action" for co-creation

LIGHTHOUSE PROGRAM



LEARN



CREATING AWARENESS ABOUT SWARCO INNOVATION THROUGH DIRECT, CONSTANT AND HIGH-QUALITY COMMUNICATION

Dedicated trainings on topics of interest (2/4 hours sessions with experts on hot topics like CCAM, Air Quality, MaaS and Traffic Management, ecc.)

DISCUSS



CREATING A DYNAMIC SPACE TO SHARE OPINIONS ABOUT EMERGING **INNOVATIONS AND CHALLENGES ACROSS** COUNTRIES/ CONTINENTS

Networking events moderated by SWARCO Experts with other stakeholders like: Cities across the world, Associations, Users, Academia in order to share common needs and best practices

TRY



CREATING DEDICATED **CAMPAIGNS FOR** «TOUCHING BY HAND» AND **TESTING SOLUTIONS IN A REAL LIFE ENVIRONMENT** FOR CHOSEN CUSTOMERS

Try-out campaign in Q3/Q4 2022: get 15 days free demo of the MyCity for the interest area visualising traffic and environmental data in a holistic way

CO-CREATE



THE ULTIMATE SCOPE OF THE PROGRAM: TO DESIGN INNOVATIVE SOLUTIONS THAT PERFECTLY FIT **CUSTOMER NEEDS**

Twice per year dedicated sessions on Innovation Topics and in-depth follow-up with some of the customers

Don't hesitate to contact us now and become a part of our Lighthouse Programm.

