SWARCO CORPORATE MAGAZINE | 1-2026

DRIVEON

AMSTERDAM CALLING
SWARCO AT INTERTRAFFIC

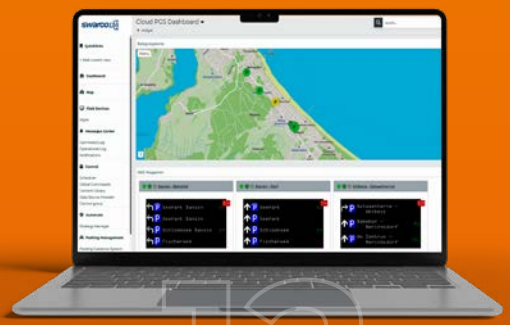
ITS FLAGSHIP PROJECTS AROUND THE WORLD

COLD PLASTIC WITHSTANDING **12M WHEEL PASSES**

HOW AI **IMPROVES TRAFFIC CONTROL**

swarco
The Better Way. Every Day.

CONTENTS



EDITORIAL

Michael Schuch
CEO SWARCO Group

AS MOBILITY EVOLVES, SO DO WE

Around the world, mobility is being redefined – on real roads, in real cities, serving millions of people every day. Innovation in digital systems and advanced materials is making infrastructure smarter, safer, and more connected. What was once defined by concrete and steel is becoming an integrated part of an ecosystem, combining intelligence with physical guidance to support increasingly autonomous mobility. Today, intelligent transportation is about more than managing traffic; it is about orchestrating safe, reliable movement at the scale of cities, regions, and nations.

Software is becoming as essential as asphalt. Data is as valuable as physical assets. Artificial intelligence, including generative AI and machine learning, has moved from experimentation to mission-critical operations. Edge computing and cloud-native platforms are enabling real-time analytics at scale, while 5G/6G and V2X connectivity bring vehicles, infrastructure, and people into a single network. Trust, cybersecurity, and resilience have become the license to operate in this connected world.

From megacities managing congestion and emissions to national road networks improving safety and resilience, intelligence is no longer aspirational; it is operational. Software optimizes traffic flows in real time. Forecasting algorithms and digital twins enable better decisions before problems arise. Connected infrastructure is turning fragmented assets into coordinated mobility systems – advancing Mobility-as-a-Service, micro-mobility, and integrated public transport.

Across five continents, our customers are bringing this vision to life by working closely with our local teams to set up and operate mobility solutions. Behind every deployment are people – engineers, operators, project teams, and partners – whose domain knowledge, commitment, and creativity turn complex technology into reliable, real-world impact. Each one of them is proof that intelligent mobility delivers measurable impact when technology meets trust and when responsible AI meets human judgment.

Our industry is being asked to deliver more than efficiency. Mobility must be safer, cleaner, more inclusive, and more resilient in the face of climate change, urbanization, and global uncertainty. Decarbonization, the energy transition, and ESG commitments are reshaping priorities. Intelligent transportation has moved from the background of city life to the center of societal progress.

Delivering this impact at scale requires us to transform ourselves.

We are investing heavily in software, AI, cloud, and cybersecurity, while advancing materials, manufacturing, and physical infrastructure – from intelligent traffic systems to high-performance road markings. We are redesigning our solutions to be interoperable and continuously upgradable. We are evolving how we work with governments and partners, prioritizing long-term collaboration over one-time delivery. And we are reshaping our culture, bringing together deep engineering expertise with digital-first thinking.

Road networks are becoming platforms. Vehicles are becoming nodes in larger systems. Cities are becoming data ecosystems. In this world, leadership belongs to those who can connect technology with trust, innovation with responsibility, global scale with local impact, and ambition with talent.

This magazine reflects that belief. It showcases how our customers and teams across regions and market sectors are making intelligent mobility real, deployment by deployment, as SWARCO continues to reinvent itself to lead the next chapter of transportation.

The Better Way. Every Day.

IMPRESSUM

Overall editorial responsibility: *Richard Neumann, Senior Manager Communications & Events SWARCO Group, richard.neumann@swarco.com*
Proof-reading and linguistic advice: *Kevin Borras, ThisMedia Co.*
Contributors to this issue: *Jürg Biedermann, Kevin Borras, Nephele Cauchi, Wolfgang Danzer, Guillaume Grolleau, Robert Lindqvist, Carl McCollum, Sandro Murro, Richard Neumann, Andrea Newman, Mario Nöllge, Uwe Pertz, Francisco Sala, Andreas Schmid, Michael Schuch, Valerie Spangenberg, Lisa Steinegger, Danijela Stevinovic, Michal Tulpa, Inge Uljee, Danny Vroemen, Nathan Welch, Friedrich Wiesinger*

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THE BRIGHTER CHOICE

Contact:
Richard Neumann
richard.neumann@swarco.com

This year, SWARCO can be found in hall 7 (Road Infrastructure) and hall 2 (ITS Traffic Management). On stand 07.227, the SWARCO Road Marking Systems division invites visitors to experience the world of high-performance road marking solutions, engineered for exceptional visibility, unmatched durability, and trusted reliability. From the first glance, the depth of SWARCO's road marking portfolio becomes clear. High-performance glass beads are combined with a comprehensive range of marking materials, tailored for virtually every application: highways, airports, bike lanes, and construction zones.

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AT

10 - 13 MAR 2026
INTERTRAFFIC
AMSTERDAM

One of the highlights is a novel cold plastic formulation, rigorously tested to withstand 12 million wheel passes while continuing to deliver retroreflectivity values far above standard requirements. These results reflect SWARCO's approach: combining advanced material science, validated real-world testing, and a strong focus on durability and lifecycle efficiency into one integrated solution.

Visitors are invited to engage directly with SWARCO experts to discuss specific applications, project requirements, and regulatory challenges. The SWARCO team will provide practical insights and tailored solutions for individual needs — from enhanced night-time visibility to durable, future-ready marking systems designed to maximize safety and efficiency on roads worldwide.

On stand 02.222, SWARCO's ITS division will not only present its new look, but showcase 10 flagship projects from across the globe, ranging from Stockholm to Agadir, and from Washington D.C. to Doha. These projects demonstrate the real-world deployment of AI in traffic control, adaptive and predictive traffic management, and many other Urban and Interurban solutions that are shaping smarter cities and more efficient journeys.

The attendees are invited to experience these innovations first-hand by putting on VR goggles and immersing themselves in the MetaCity Augmented and Virtual Reality environment where they can interact with dynamic, future-ready mobility concepts.

Simultaneously, we will present cutting-edge innovations, including Digital Twin technology and Cooperative, Connected, and Automated Mobility solutions in our dedicated Technology Area. Visitors can also discover the new COMBIA CIRCULAR traffic light, crafted primarily from recycled polycarbonate, and the FLEXICONTROL prototype, our pioneering wireless mobile traffic light system. Our international team of mobility experts will be on hand to demonstrate that the future of transportation is not a distant vision — it's already a reality.

And finally: What would Intertraffic be without our renowned hospitality? On 11 March from 5 pm visitors are invited to join our after-show receptions on both stands. We look forward to welcoming you!

The use of artificial intelligence in our daily life has become omnipresent. How about AI in ITS? The day-to-day discussion of AI in public is about unprecedented capabilities and chances but also new threats and fears. Do we understand what happens, is it safe, can we trust it, do we lose sovereignty? In this article Andreas Schmid, Head of Market Solutions with SWARCO in Germany, shows that AI is not that new in our domain of application. It can be applied in a very trustful and in a safe way and we've already been using it, albeit partially, for years. And certainly, we will see more applications and functions in future.

Contact:
Andreas Schmid
andreas.schmid@swarco.com.

AI IN ITS -

In our traffic management solutions AI is applied very distinctively and decentralised for specific dedicated tasks. Let us consider traffic management happening on different layers in scope and time. Traffic management today is not built in a way that everything happens on a single central computer. We have some functions in the field, others in centres. Typically, the field takes care of the second-by-second control and safety while centres coordinate, optimize and contribute to an overall situational awareness for strategic decisions (next 15 minutes or even hours). This also reflects in the AI usage.

Let us consider first the functions “at the edge” - in our outstations next to the road. In a signalised intersection, for example, decisions and safety control happens right there, including detection with sensors. This is the first layer on local scope and typically the short- time horizon where AI helps us in analysing the situation or taking decisions second by second.

The discipline of machine learning makes our applied sensors more powerful. Regardless of classic loops, radar, camera images or lidar: AI is standard technology today when a detector signal shall be interpreted and converted into a classified piece of information. What type of thing is actually detected there? A car? A bike? A bus? When the detector signal is spatial (i.e. not just looking at a single spot but at an area) it is AI technology, typically right inside the sensor already, interpreting where exactly an object is now and where it was before. We receive a classified object tracking. A second-by-second position and speed vector of the classified object.

To remain compatible with existing traditional systems, in day zero all “spatial vector information” was converted back into classical “push-button”-alike measurement signals, saying “something has passed this line”. When legacy systems were able to handle it, this information got augmented with data on “speed” or “classification” of the triggering event on the line.

The upside is that classic legacy control can deal nicely with it and there is no need to renew infrastructure in the field which is still capable and efficient enough to continue running for a while.

Yet it is obvious that a lot of information remains unused. In new systems we bring to the road we certainly want to take full advantage of the capability coming from AI-supported detection. One step to achieve this is the introduction of the “C-ITS library” in LISA planning software and the ACTROS traffic controller operating system. Traffic engineers can use completely new functions, which exploit the trajectory based, classified knowledge of what has been detected.

Functions like “When will the next vehicle arrive at the stop line?”, “Is there a queue?”, “How long is it?”, “Is there a vehicle requesting priority and where is it?”, “Are there many pedestrians or are there some slow-moving pedestrians?” become available.

Traffic engineers can now use the additional knowledge to significantly improve the traffic control algorithm. No AI magic. Fully supervised by a human engineer. Based on safety rules AI cannot out-rule.

EFFICIENT, RELIABLE, SAFE

ACTROS traffic controller

As we know, situations can be quite complex. Having more knowledge also means more to think about during design time and what to consider for an algorithm we program.

So, a next evolution step for using AI is natural: Can AI help us make the right decision every second, always fitting best to the current situation? Of course it can. The implementation of “smart AI” in a local intersection does exactly that. It fully exploits the modern detectors’ capabilities, and it follows rules given by traffic engineers. In this case, ‘rules’ is not the algorithm itself, but it is comprised of safety rules which cannot be violated and target functions or enhance the weight of targets which shall be balanced against each other. Second by second all possible transitions given by the rules are evaluated. The optimal one with the lowest ‘costs’ is finally selected. The result of each-second calculation is shown live and can be filed in a protocol. Thus, an engineer can watch and analyse how the system behaves and change parameters to achieve the desired characteristics, if necessary.

Smart AI machine learning is used for making decisions on transitions. AI has been used to calculate predictions of signal intersections for several years. Our “SPAT Maker” forecasts are used for traffic signal information and greenlight optimal speed advisory services.

Another application of AI on a local level is the prediction of a particular measurement value. For instance, analysing, learning, and predicting the occupancy of parking space or volume and speed of traffic is a practical field of application for AI. Here, the logic is not running in the field but typically in the centre where the measurement value is collected.

So let us shift the view from the second-by-second measurement and decision-making in one spot in the field. We now consider a slightly larger time horizon (minutes). Locally, we look at a stretch of road or a small network comprised of several intersections. On this level, traditional control foresees approaches such as green waves, organised plan selection or model-based control to optimise traffic flow. Also on this level AI can help improve overall or adapt well to the current situation.

In one pilot, we use AI to dynamically adapt the offset of an individual intersection in a green wave corridor. We expect AI to adapt easily and quickly to each situation without the need for engineers having to enumerate and select predefined situations when composing the green wave plans. Wherever model-based control is applied, AI can augment the situation. AI can fill in the gaps of unmeasured data or can determine variables by learning instead of algorithmic choice from an enumeration programmed by an engineer.

Finally, AI can be applied on the network level or longer time horizons such as hours or days in a central system: In addition to the prediction of a single value as mentioned before, AI can help to set up and run an entire digital twin model. Such a model can calculate traffic characteristics and traffic-based pollution on an entire network. Either for the current situation – even where there are no measurements available – or for future situations. Since it is a digital twin, the model can even calculate different scenarios of the future, based on different traffic management actions chosen. AI makes decision support systems – here the digital twin – cheaper and more efficient.

While the prior all exists or is at least piloted, we can imagine even further steps.

Why should AI not help in choosing and proposing traffic management actions and giving reasons for choosing it by calculating the future when selecting the given choice?

Why should AI not assist the traffic engineer in programming a traditional algorithm for traffic control in the same way as computer programs are already supported by copilots in programming?

In any case we expect Human Intelligence (HI) to use the AI proposal and to apply the final decision in appropriate and perhaps refined form.

We believe that using AI in those manners leads to efficient, safe, and reliable traffic management and control, respecting our human values.

WOLVERHAMPTON MYCITY SYSTEM

USING REAL-TIME DATA TO IMPROVE DRIVER DECISION-MAKING AND TRAFFIC FLOW

FACT BOX ABOUT WOLVERHAMPTON

PROJECT	Wolverhampton MyCity System
LOCATION	Wolverhampton, West Midlands, United Kingdom
POPULATION	265,000
AREA	69,44 km2
SWARCO SOLUTIONS	MyCity traffic management system including ■ Real-Time Parking Data Integration ■ Dynamic VMS Messaging ■ Multisource Data Fusion ■ Automated Traffic Management Strategies

Contact:
Andrea Newman
andrea.newman@swarco.com

City of Wolverhampton Council aim to enhance their traffic management capability and improve the experience of the travelling public

A key challenge for councils is that drivers often make decisions with limited or incomplete information, such as knowing only that a car park is “open” without knowing how full it is, or travelling into congested zones without awareness of delays, pollution issues, or available alternatives. This lack of real-time context leads to unnecessary diversions, increased congestion, avoidable emissions, and inefficient use of available network capacity.

SWARCO provides an integrated, data-driven traffic management ecosystem that connects sensors, systems, and communication channels into a single decision support framework. Key components include:

- **Real-Time Parking Data Integration**

Entry/exit loops and smart cameras feed live occupancy data into the SWARCO MyCity platform, enabling accurate space counts and occupancy thresholds.

- **Dynamic VMS Messaging**

VMS automatically display available spaces or alternative guidance using colourcoded status indicators (green <93%, amber 93–98%, red >98%).

- **Multisource Data Fusion**

MyCity integrates:
- Air quality readings
- Journey time data
- Car park occupanc

- **Automated Traffic Management Strategies**

When thresholds are met – such as high pollution, slow journey times, or a nearfull car park – the system triggers predefined strategies, pushing diversion messages to upstream VMS signs.
There are benefits for drivers, councils and the environment on enabling the solution.

FOR DRIVERS

- Clearer, more confident decision-making - Real-time space availability (e.g., “162 spaces available”) removes uncertainty, reducing unnecessary diversions.
- Reduced congestion at pinch-points - Drivers distribute more evenly across available routes and parking options.

FOR TRAFFIC MANAGERS AND COUNCILS

- Predictable and more rational driver behaviour - Data-informed decisions reduce random or last-minute manoeuvres that disrupt flow.
- Improved air quality - Coordinated messaging limits traffic entering areas where NO_2 levels are rising.

FOR THE URBAN ENVIRONMENT

- Reduced idling and stopstart traffic lowers emissions.
- Enhanced sustainability by directing vehicles to less congested or topographically favourable routes.

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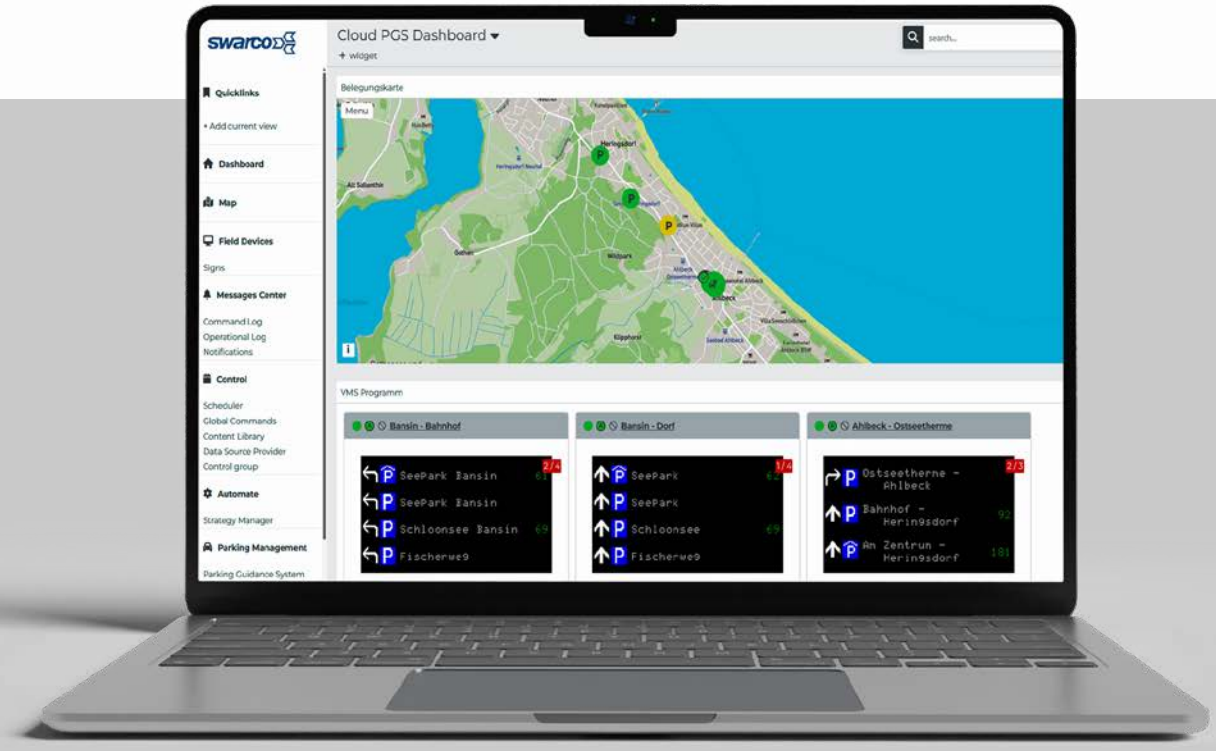


SMART PARKING MANAGEMENT FOR HERINGSDORF

The seaside holiday destination Heringsdorf on the island of Usedom/ Germany is a popular location for both day visitors and tourists. During the summer season, high visitor numbers lead to considerable parking search traffic in Heringsdorf, Ahlbeck and Bansin. To address this, a modern and datadriven parking management approach was developed.

Contact:
Uwe Pertz
uwe.pertz@swarco.com

FACT BOX ABOUT HERINGSDORF

LOCATION	Heringsdorf, Mecklenburg-Vorpommern, Germany
POPULATION	Ca. 6,000
AREA	37.81 km²
INTEGRATED SOLUTIONS	■ Detectionbased data collection on 4 parking lots ■ 2x inductive loops, 1x ground-based single-space sensors, 1x camera based single-space detection ■ 5 dynamic parking space display locations ■ 4 RGB LED traffic information signs ■ Cloudbased MyCity data platform ■ PARCO App as additional digital, virtual VMS on iOS/ Android smart phones ■ Data integration from Flowbird parking meters

THE SWARCO SOLUTION

As part of the European project Parking gets SMART, an innovative parking management concept was introduced. To record occupancy, four parking areas were equipped with different detection technologies, including inductive loops, ground-based, single-spaces sensors and camera-based detection. In the first expansion stage, ticket sales from Flowbird parking meters were also integrated to estimate occupancy, with MyCity communicating directly with the parking meter backend.

Occupancy information is displayed on dynamic LCD signs at the car park entrances, while additional boards along the main access roads provide an overview of current utilisation and important traffic messages. These signs are complemented by four fully graphic, full colour LED matrix displays that can also show event or general traffic information.

The cloud-based MyCity platform acts as the central data hub for the entire region. It connects detection devices of different technologies and manufacturers through open interfaces and makes the resulting static and dynamic parking data available for digital services. The traffic management algorithm, combined with a scenario manager, controls the dynamic signage based on current conditions. All collected data is accessible in real time via REST API and provided to the PARCO App and other mobility services, enabling visitors to check parking availability before starting their journey.

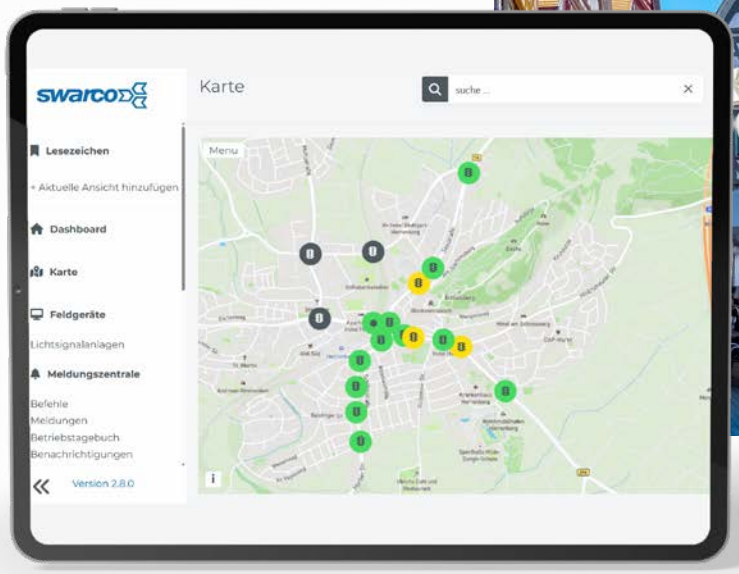
RESULTS

With realtime detection, dynamic signage and centralised data processing, parking search traffic in Heringsdorf and nearby region has been reduced. Visitors find available spaces more quickly, unnecessary detours are avoided and overall traffic in the resort is eased.

FACT BOX ABOUT HERRENBERG

LOCATION	Herrenberg, Baden-Württemberg, Germany
POPULATION	approx. 35,000
AREA	65.7 km²
INTEGRATED SOLUTIONS	■ Virtual traffic signal control center (MyCity Cloud System) ■ 16 intersection controllers (incl. 10 ACTROS X-LINE), capable of Car2X (V2X) ■ Public transport prioritization system ■ Accessibility features for visually impaired pedestrians ■ 30 dynamic speed displays ■ Traffic detectors at multiple intersections ■ Integration of legacy as a thirdparty controller in MyCity

Contact:
Andreas Schmid
andreas.schmid@swarco.com.



The city of Herrenberg, located some 30 km south-west from Baden-Württemberg's capital Stuttgart, faced increasing traffic and environmental pressures. The project's goal was to implement traffic control measures which allow improved harmonization of traffic in order to reduce pollution while ensuring that the road capacity meets the traffic demand for different scenarios. To achieve this, the city implemented an intelligent traffic management system that uses realtime data, optimizes signal control, sets dynamic speed limits and supports future mobility needs.

SMART TRAFFIC MANAGEMENT

IMPROVES TRAFFIC FLOW AND AIR QUALITY IN HERRENBERG

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ON STAND
02.222

THE SWARCO SOLUTION

The City of Herrenberg chose SWARCO to tackle its growing traffic and environmental challenges. At the heart of the project were:

- The setup of a Traffic Management Center (SWARCO MyCity Cloud System);
- The implementation of a network-adaptive control system, TMS Adaptive (formerly INES), based on traffic and environmental data;
- The integration of 17 traffic signal systems with real-time data transmission to the new platform;
- The installation of almost 30 dynamic speed advice displays across the city.

The network-adaptive control software (TMS Adaptive) continuously evaluates data from newly installed detection points, selects suitable signal programs for the current traffic situation, and adjusts local parameters when necessary. Using the ANNA data and analytics software, all controller data can be analysed for an ongoing optimization process.

To support the control of traffic flow in alignment with the traffic light program, almost 30 dynamic speed limit displays were installed. To minimize costs, those are directly controlled by the SWARCO ACTROS X-LINE traffic light controllers. This means MyCity Adaptive has control on both the traffic light program and its linked speed limit for ideal traffic flow.

Finally, all intersections were equipped with Car2X technology to enable future communication between infrastructure and vehicles, e.g., to prepare the migration from the end-of-life public transport prioritization frequencies in 2028 towards C-ITS based prioritization.

Traffic engineers improved coordination of local signal control, identified and re-assigned unused green times, so that now green phases match the expected number of vehicles at each intersection. The design of various green waves became the basis for MyCity Adaptive to achieve reduction of stops, smoother traffic flow, more consistent progression resulting in lower emission levels.

Contact:
Robert Lindqvist
robert.lindqvist@swarco.com

SWARCO Smart Priority is an intelligent traffic signal priority system that enables vehicles with priority rights to communicate with traffic infrastructure using virtual detection based on GPS positioning. The system determines in real time whether a vehicle is entitled to priority and, where applicable, sends a priority request directly to the traffic signal controller.

CLOUD-BASED TRAFFIC SIGNAL PRIORITY

USING EXISTING INFRASTRUCTURE

Smart Priority is a cloud-based and scalable solution for customized priority management at traffic signals and other infrastructure elements. It supports vehicles that transmit position and operational data either via onboard communication devices or through a central system. By using existing systems and infrastructure, Smart Priority provides a highly cost-effective way to optimize travel times, reduce CO_2 emissions, and improve the passenger experience.

HOW IT WORKS

Priority requests are generated using virtual detectors based on real-time vehicle position and priority rules. These detectors can be flexibly placed and configured to match current traffic conditions. Requests are transmitted directly to the traffic signal controller and integrated into the existing control algorithms.

A web-based user interface allows operators to monitor performance, analyze statistics, and define their own priority rules, such as vehicle type, route or line number, timetable, passenger load, and conflict handling when multiple requests occur simultaneously.

BENEFITS

- Environmentally friendly: More efficient public transport reduces congestion and emissions.
- Improved travel times: Smoother traffic flow helps vehicles keep to schedule.
- Easy to implement: Uses existing hardware and traffic signal functionality.
- Cost-effective: No road-embedded detectors required; existing IP communication and controller logic can be reused.

Typical users include municipalities, public transport operators, and emergency services.

EMERGENCY VEHICLE PRIORITY – KEY FACTS

Faster response saves lives. Studies show clear survival benefits when emergency response times are reduced. GPS-based traffic signal priority helps ambulances, fire and police vehicles avoid unnecessary stops, cutting response times by over 100 seconds in both urban and rural environments - using existing infrastructure and without new roadside hardware.

A COUNTRYWIDE SMART MOBILITY SOLUTION

SHAPING QATAR'S MOBILITY FOR TOMORROW

In 2019, ASHGHAL, the Public Works Authority which was established with the mandate of providing world class infrastructure facilities in Qatar, awarded SWARCO with a 6-year, ambitious and first-of-a-kind project to implement a country-wide intelligent traffic management strategy that enables traffic operators to focus on road network performance, achieving journey time reliability, rapid incident detection and automated response, and increased road safety.

Our software solution, running at the National Road Assets Management Center, is a comprehensive future-proof ITS platform supporting and integrating all existing and future ITS implementations to:

- Monitor and control more than 20,000 existing and future ITS equipment e.g. CCTV, VMS, RWIS, ATD, WiM, Overheight Detection, LPR;
- Enable traffic forecasting, SCATS traffic control, SCADA tunnel man-

FACT BOX ABOUT QATAR

POPULATION	3.2 million
AREA	11,581 km²
CONTROLLED ROAD NETWORK	> 9,800 km
CONNECTED ITS DEVICES	> 22,500
SPECIALISED SOFTWARE INTERFACES	>20
CONNECTED EXTERNAL SYSTEMS	>30

Contact:
Sandro Murro
sandro.murro@swarco.com

agement, Automated Incident Detection System, and Business Systems Integration.

Whilst aspiring for a self-healing road network with constant performance improvements, our software solution has proven its performances also under exceptional conditions, such as big special events like the FIFA World Cup in 2022, when the country had to manage an extra 50,000 to 100,000 people moving around Doha, between the stadiums, putting huge pressure on local infrastructure. During the 28 days of the event, our software solution was put under considerable stress by successfully handling almost 2,800 traffic related events, 2,400 different messages displayed by the VMS, and 13 lane closure incident response plans on the motorways.

Despite all these exceptional conditions, our bundle of response plans and strategies provided significant benefits on all corridors. In total the routes around the stadium and the fan zone areas consisted of 164 intersections which had to be created and optimised in terms of traffic control, also effectively providing priority to Public Transport, FIFA buses and emergency vehicles.

Now, at the end of our journey, the whole world is looking at our platform as a reference project in the ITS industry, whilst we are preparing for the next step to enhance it further through our AI-based solutions to not only be an effective solution for today but also to continue shaping Qatar's mobility of tomorrow.

THE CAPITAL OF INNOVATION

THE CITY OF HELMOND IN THE NETHERLANDS

Featured at INTERTRAFFIC AMSTERDAM 10 - 13 MAR 2026 ON STAND 02.222

Contact:
Danny Vroemen
danny.vroemen@swarco.com

When innovation in mobility is discussed, Helmond consistently stands out. For almost two decades, the city has been at the forefront of advanced traffic management, driven by a clear ambition: improving traffic conditions while strengthening urban livability and economic vitality. Helmond does not innovate for innovation's sake — it innovates to create a resilient, people-centred city.

What truly distinguishes Helmond is its willingness to experiment. New technologies are not confined to policy papers or pilots behind closed doors; they are deployed, tested, evaluated, and refined in real traffic. As SWARCO, we are proud to be a long-term partner of the city, jointly developing, implementing, and validating new capabilities — sometimes with our own solutions, often together with ecosystem partners. Helmond has evolved and proven to be a true living lab for smart mobility.

The city's approach is pragmatic and agile: learn fast, fail quickly, and avoid unnecessary bureaucracy. A clear example is the earlier deployment of SWARCO's Adaptive Traffic Controller ImFlow on a key corridor, followed by the current study to optimize the Kasteeltraverse during major reconstructions. This is not just about fine-tuning today's traffic flows; it is about preparing for the future. Helmond explicitly aims to become a largest testbed for Cooperative, Connected and Automated Mobility (CCAM) in the Netherlands, focusing on concrete use cases rather than isolated intersections.

This ambition is further strengthened through V2Xperience, an open ecosystem partnership signed earlier this year by SWARCO, Gazelle (PON), Spectrum FiftyNine, TNO, the City of Helmond and SmartwayZ.nl. Together, we committed not only to developing the test site, but, more importantly, to demonstrating real, scalable use cases to meet the city's major challenges. The unique strength of V2Xperience lies in its ecosystem-first approach: all critical partners collaborate from design to deployment.

Notably, the program starts with active mobility. Cyclists are at the center, exploring seamless commute through the city by providing priority and safety use cases for connected bikes and assessing their broader impact. At the same time, the focus is firmly on scalability, moving beyond one-off demonstrations. Emergency services, including the fire department, are already joining the living lab with priority and safety use cases of their own.

The ultimate goal of V2Xperience is clear: enabling the entire ecosystem to progress from standalone use-cases, to jointly delivering measurable value and sustainable business cases.

Curious how your city or organisation can accelerate smart mobility through real-world use cases? Engage with SWARCO and explore how we can shape the next generation of traffic management together.

OUR AMBITIONS AS A CITY CAN ONLY BE ACHIEVED IF WE COLLABORATE AS EQUALS WITH PARTNERS LIKE SWARCO. THEIR TECHNOLOGIES ENABLE US TO COPE WITH OUR CHALLENGES. FOR EXAMPLE, BALANCING TRAFFIC FLOW AND LIVEABILITY WITH IMFLOW OR MAKING OUR CITY FUTURE PROOF FOR CCAM DEPLOYMENT WITH THEIR V2X-SOLUTIONS.

Luuk Misdom, Senior Project Leader Smart Mobility, City of Helmond

FACT BOX ABOUT CITY OF HELMOND

POPULATION	~100,000 inhabitants
ACTIVE MOBILITY	~30% of the mobility is active mobility with an aim to enlarge the modal shift
AIMS	26 intelligent intersections using the latest CCAM technology (MK6)
	Multiple fire brigade trucks joining the living lab
	50+ cyclists on various corridors and various usages

Featured at INTERTRAFFIC AMSTERDAM 10 - 13 MAR 2026 ON STAND 02.222

MLADÁ BOLESLAV ITS AND PUBLIC TRANSPORT PROJECT

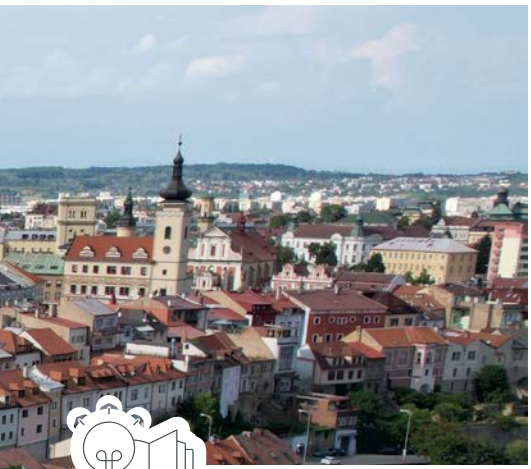
The Czech city of Mladá Boleslav, located some 50 km north-east of Prague, adopted a conceptual approach to upgrading their key traffic management, public transport systems and related infrastructure. From 2021, the City identified their needs, secured additional financing from EU and state funds, and looked for an appropriate partner to provide a complete package with technology, infrastructure, and project management. The ITS program was structured in 3 projects for the period of 2022 – 2026, with a total value exceeding € 10M. Due to EU funding, there were very tight deadlines and strict requirements regarding the quality of delivery.

Mladá Boleslav is a mid-sized historical city with around 45,000 inhabitants, with massive ŠKODA automotive production and warehouse buildings adjacent to residential areas. There are many challenges for traffic management in and around the city, with thousands of workers commuting to 4 working shifts per day, huge numbers of trucks feeding car parts from storages to production plants, and traffic from the motorway passing the city and its tangents. Representatives of ŠKODA are aware of the traffic situation and also invest in ITS in the city, e.g., into an extensive CCTV system. ŠKODA also intend to use municipal CCAM infrastructure for piloting self-driving cars and, in general, cooperative ITS.

SWARCO was selected in open tenders as the only ITS provider able to deliver the required ITS solutions and also act as integrator for third-party technologies and infrastructure works. SWARCO won all 3 projects designed to deliver the complete ITS solution for the City. Between April and December 2022, a state-of-the-art traffic management system namely the MyCity customer data centre with Strategy Manager and traffic management server, were delivered. Eleven roadside units on intersections and on-board units for emergeny vehicles followed. A red light violation enforcement system was implemented, and 23 intersections were equipped with new poles, signals, cameras and controllers. Extensive infrastructure works included 8.8 km of trenches, 5.5 km of fibre-optic network, and 5 km of public lighting connections. Between June 2024 and February 2025), a complete NEXT fleet management system including a new monitoring center and a third-party transaction/ ticketing system were implemented. The CCAM system was extended with traffic priority for buses, consisting of back-office extension,13 roadside units, 33 on-board units, and on-board cameras in buses with analytic and event detection functions. The third phase from May 2025 to May 2026 will see the extension of CCAM technology to all intersections in town with 12 road side units, new signals, controllers, and cameras. 18 new strategic detectors, 50+ cameras for the city CCTV system and many kilometers of trenches and fibre-optic and signalization cables will be added.

WHAT ARE THE POST-IMPLEMENTATION BENEFITS?

SWARCO's solution enables efficient traffic management for all traffic types in Mladá Boleslav, including priority for rescue, police, and firebrigade vehicles and public transport buses. It also forms a very good basis for developing CCAM solutions and pilots for self-driving cars in cooperation with ŠKODA, headquarted in Mladá Boleslav with its largest production site.



Contact:
Michal Tulpa
michal.tulpa@swarco.com

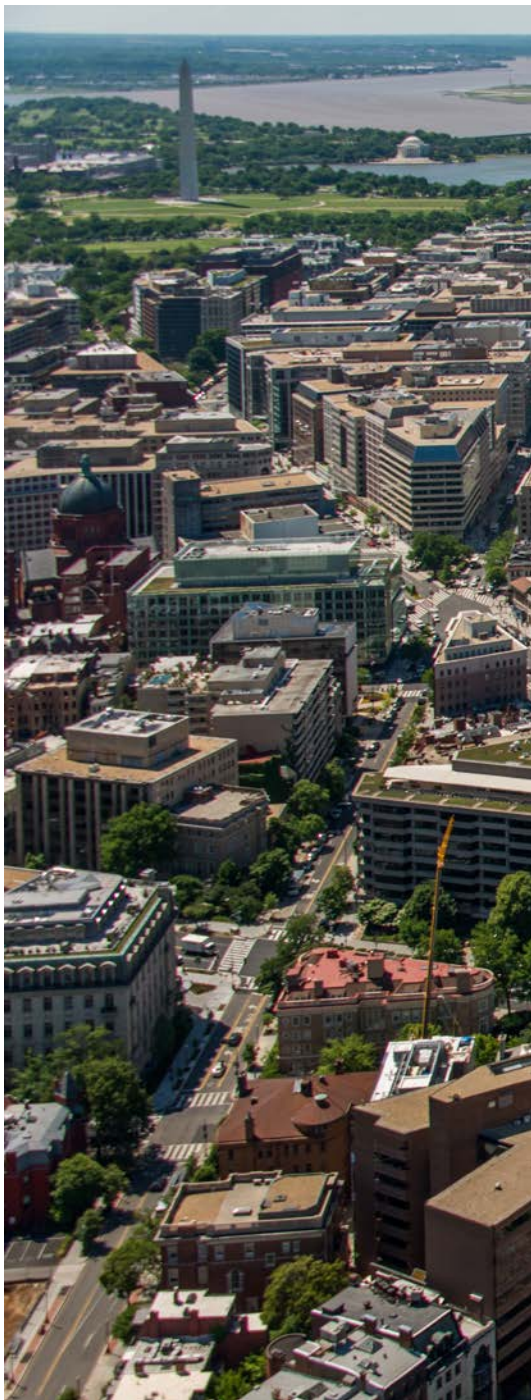
FACT BOX ABOUT MLADÁ BOLESLAV

LOCATION	Mladá Boleslav, Bohemia, Czech Republic
POPULATION	approx. 45,000
AREA	28.9 km²
INTEGRATED SOLUTIONS	■ MyCity traffic mangement system ■ CCAM solutions with back-office ■ Intersection infrastructure renewal (controllers, signals, detectors, cameras) ■ NEXT fleet management system and monitoring center incl. priority for public transport ■ CCTV system extension and installation of strategic detectors ■ Extensive civil works

WASHINGTON, D.C. ENHANCES URBAN MOBILITY

WITH SWARCO MCCAIN'S CUTTING-EDGE TRAFFIC MANAGEMENT SYSTEMS

Featured at INTERTRAFFIC AMSTERDAM 10 - 13 MAR 2026 ON STAND 02.222



OVERVIEW

To address growing traffic complexity, the District Department of Transportation (DDOT) partnered with SWARCO McCain to deploy the MyCity Traffic Management System (TMS), an intelligent platform that enhances safety and efficiency.

LOCATION

Washington D.C., the U.S. capital, is located on the East Coast along the Potomac River and is bordered by Maryland and Virginia. The city is home to roughly 700,000 residents and attracts 20 to 25 million visitors annually. Major routes like I-395, I-295, and the George Washington Parkway often face congestion and bottlenecks. Washington, D.C.'s unique combination of grid patterns and diagonal avenues contributes to irregular intersections and frequent traffic conflict zones.

THE CHALLENGE

Washington, D.C. manages over 1,600 signalized intersections using the legacy SWARCO McCain QuicNet Traffic Signal Management Software. Faced with aging traffic infrastructure, DDOT recognized the need to modernize its systems to support growing mobility demands. The challenge of accommodating pedestrians, cyclists, buses, and cars placed significant strain on signal timing and intersection design. DDOT was looking to invest in a new traffic management system that would pave the way for a more sustainable, efficient, and safer transportation network across the district.

Contact:
Nathan Welch
nathan.welch@swarco.com

SOLUTION

To overcome the challenges of managing over 1,600 intersections with outdated traffic technology, DDOT partnered with SWARCO McCain to deliver a modern, comprehensive solution. The project included a phased migration from QuicNet to MyCity TMS, with both systems temporarily operating in parallel to ensure a smooth transition. DDOT also modernized its central traffic system infrastructure by replacing legacy 170 Controllers with advanced McCain ATC FleX® Controllers running the latest Omni eX® Intersection Control Software.

THE RESULTS

Washington, D.C. now operates on a future-ready traffic management platform that improves safety, reduces congestion, and enhances reliability across complex intersections. Our solution powers Dupont Circle, the most complex intersection in North America, showcasing how SWARCO McCain's advanced traffic solutions tame even the toughest mobility challenges. The city has built a strong foundation for smart city initiatives while streamlining operations, reducing downtime, and supporting sustainable urban mobility.

INTERURBAN PROJECT

A1 REUSSTAL – NEUENHOF

Featured at INTERTRAFFIC AMSTERDAM 10 - 13 MAR 2026 ON STAND 02.222

FACT BOX

PROJECT	A1 Reusstal - Neuenhof («Baregg»)
LOCATION	Swiss national road A1, Greater Zurich Area
AREA OF EXPERTISE	Traffic management – Interurban
MAIN PRODUCT	MyHighway traffic control system
SCOPE	Signalling and traffic control for 2 tunnels
IMPLEMENTATION	2020 – 2025
CLIENT	Swiss Federal Roads Office FEDRO
CONTRACT VOLUME	> Euro 3.0 million

Contact:
Juerg Biedermann
juerg.biedermann@bergauer.ch

A comprehensive renewal on one of Switzerland’s busiest motorway sections

As part of the project “A1 Reusstal – Neuenhof”, a new traffic control system was successfully implemented on one of Switzerland’s busiest motorway sections. The project included two tunnels with a total of five tubes. The scope comprised the specification, delivery, installation and commissioning of a modern signalling and traffic management solution for 12 km of motorway. A key challenge was carrying out the work while maintaining traffic flow on a section with daily volumes exceeding 100,000 vehicles. Meticulous phase planning and close coordination with neighbouring systems were therefore essential.

At the core of the solution is the MyHighway traffic management and control system. The system controls more than 580 dynamic signals and processes traffic data from 95 overhead radar sensors via 56 roadside units distributed along the route.

Special attention was given to the implementation of the speed harmonisation and danger warning function in accordance with the Swiss Federal Roads Office guidelines across the entire perimeter.

Intelligent traffic algorithms support automated congestion prevention, traffic flow harmonisation and semi-automatic lane transfer for two-way traffic operations. Individual vehicle data as well as aggregated long-term statistics are stored, providing a solid basis for traffic analysis and optimisation.
The traffic control system was fully integrated into the higher-level control environment and connected to neighbouring systems. Modern IT standards were applied, including OPC UA interfaces, VMware-based system architecture, Active Directory support, secure access via reverse proxy and industry-standard backup and release management.

The project demonstrates how complex traffic control infrastructure can be renewed and expanded under live traffic conditions while meeting stringent safety, availability and integration requirements.

BUILDING ON A STRONG FOUNDATION

For a variety of reasons 2025 proved to be something of a challenging year for Carl McCollum, President of SWARCO America, Inc and Regional Vice President of North America's Road Marking Systems division. However, as he tells Kevin Borras, the new year is proving to be a great deal more promising and the experience has strengthened his, and his colleagues', resolve and will to continue to build on a very solid foundation of quality products, brand, technology, customer relationships, and dedicated employees.

Contact:
Carl McCollum
carl.mccollum@swarco.com

"We entered into 2025 on the back of a dramatic drop-off in the availability of a key strategic raw material for our glass bead operations, namely the raw recycled glass that we call cullet." Carl McCollum, VP of North America's Road Marking Systems division begins our interview with a refreshingly frank admission.

"The market had been drying up for several years, and towards the end of 2024 going into 2025 we were in a position where we only had a few weeks' worth of reserve and material available. So quite an unsettling situation as you can imagine!"

For the Texas-based McCollum and his Road Marking Systems colleagues, what at first seemed like an insurmountable challenge turned out to be a situation that they were able to resolve, but not without financial and logistical consequences.

"We were able to find some new sources of this raw material from further away which, inevitably, between the higher freight costs and the general lack of availability in the market, led to some increases in costs. However, what began as a significant challenge that we faced in 2025, led to the successful localization of several reliable, new suppliers. So, from a risk point of view, we've mitigated our reliance on only one or two suppliers, and are now in a much better place in terms of availability and number of sources of this strategic raw material."

NEGATIVES INTO POSITIVES

That was not the end of the challenges, however. In the early summer of 2025 SWARCO America was met with the unexpected issue of the company's MEGALUX glass bead manufacturing facility having to undergo what McCollum diplomatically describes as an "unplanned rebuild."

"The team managed it brilliantly," he says. "The shutdown was at the least ideal time, in May, which is typically the period when our busiest season is about to start. We executed it on time, on schedule, on budget, and were able to satisfy our customer demands and orders without missing a beat, and so I'm very proud of the team for accomplishing that."

Add to this the retirement of Carl's long-time and highly respected predecessor, Jon Sproul, and you have some of the ingredients that can easily, if not managed properly, start to destabilise a company and its employees. It's testament to the strong foundation already set, McCollum and his SWARCO America team-mates that they looked to embrace the adversity and turned it to their advantage.

"We viewed it as very much a year for us to position ourselves for the next phase of growth in the coming years. In other words, adding to our team's depth in some key critical positions and skill sets, whether in project management, process engineering, manufacturing engineering, and, of course, sales management and business development roles."

L to R: Michael Schuch, Group CEO; Carlton Wiley, Sr. Project Manager; Carl McCollum, VP Region America/RMS: Brandon Copeland, Project Lead; Erik Maki, General Manager; Tom Field, Operations Manager

NEW YEAR, NEW MEMORIES

So now with 2025 rapidly disappearing in the rear-view mirror, 2026 is shaping up to be a memorable year for Cark McCollum and his SWARCO America colleagues – this time for all the right reasons.

“One of our big objectives for this year is the successful planning, building and commissioning of a new direct melt glass bead facility,” he says at the beginning of his 29th year with SWARCO. “We are investing heavily in building a new production facility at our Texas location for one of our premier, high end glass bead products that was developed by our Competence Centre in Austria, namely our higher refractive index and highly durable Duralux glass beads. It's a one-of-a-kind product that performs beautifully on the roadway and unlike any other glass bead.”

“Since around 2020 we'd been building up the market here in the US for this unique product line,” he continues, “importing theose beads from our sister company M. Swarovski Gmbh in Austria as a complement to our domestically produced road marking materials and glass beads. But then the Buy America, Build America (BABA) legislation came into effect, essentially making the investment a requirement if we wanted to continue to grow or even protect the market we built for this product line.

And so it began. A project team was assembled in 2025 and the plan to invest in a new facility in Texas got under way.

“And here we are,” says McCollum, barely hiding his pride and excitement at what’s to come. “We have a project team that comprises key folks from the Austrian engineering team along with our local project management team. We have a great concept and plan in place. The final engineering is done, the ground has been broken, and [at the time of writing] we are on schedule to have completed all the civil and dirtwork, and have the foundation in place to begin building vertically in early February. Our goal is to have this facility up and running by September 2026.”

The project represents the second largest capital investment for SWARCO in North America and McCollum is understandably excited.

“Our sales team is very eager to be able to go back to our customers and the DOTs across the country and let them know that we are now, or will be, Buy America- compliant, and we can go back to rebuilding our market share for this premium bead in North America.”

THE PROMISE OF THE NEW

In terms of new products, or new iterations of existing road marking systems, McCollum is equally enthusiastic and ebullient.

“In 2026 we're looking to roll out a new and improved version of our SuperStripe thermoplastic road marking product. It's a higher performance formulation, designed to last longer, to be more easily applied on the roadway, and used in combination with a premium glass bead product such as Duralux,” he says.

“The target market would be State DOTs where the road marking contractors very much like working with thermoplastics. There are other very durable road marking systems out there, like those with methyl methacrylate-based resins or other plural component systems, but there are many States that really like thermoplastic. Their contractors are set up with thermoplastic equipment, but they need something that's a little bit more durable, that have similar performance levels over a longer period.”

> *THE MANTRA BEING:*
> *‘IF YOU DO IT WELL, KEEP DOING IT. ’*
>
> Carl McCollum,
> SWARCO REFLEX INC.

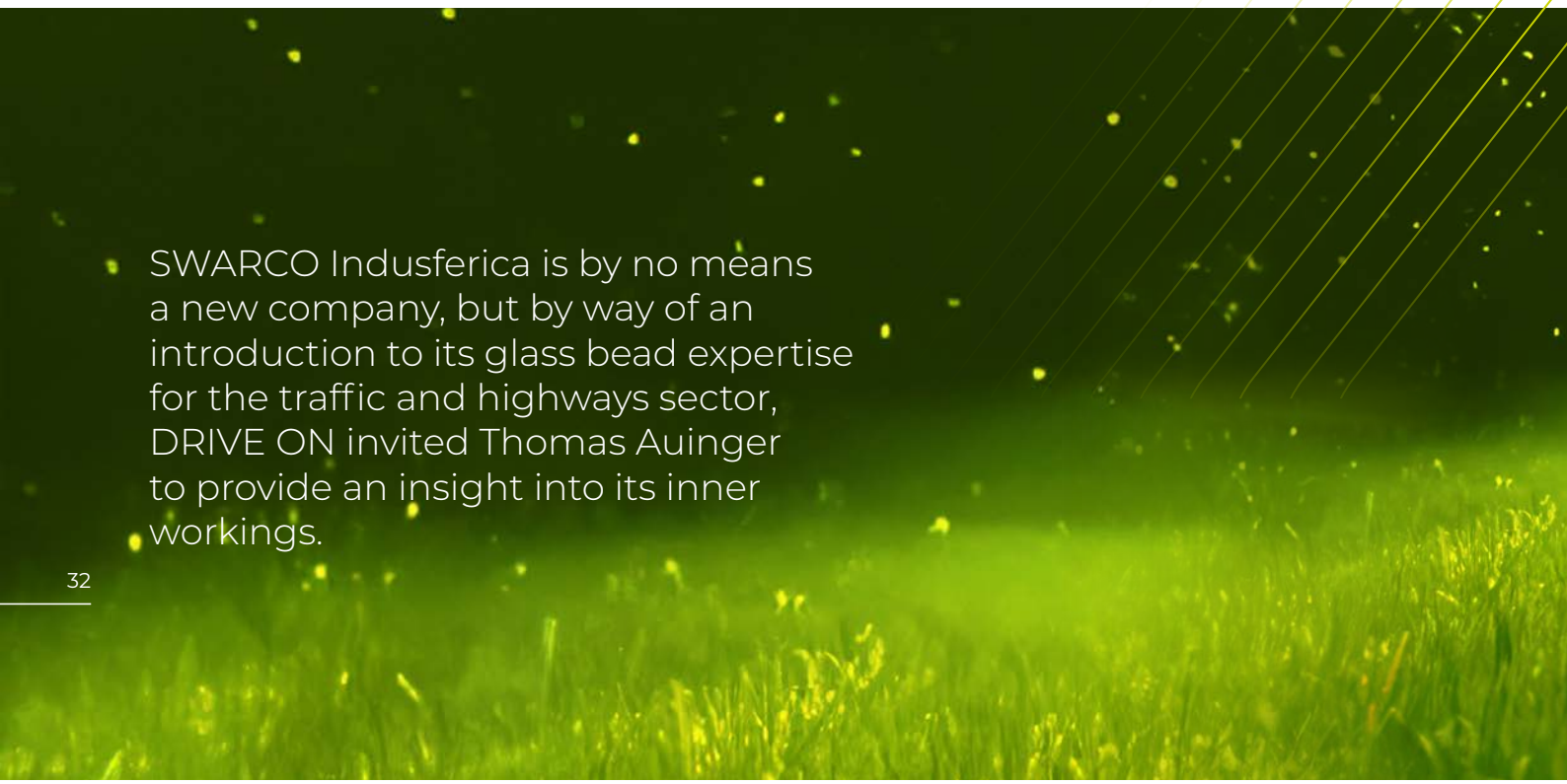
CONTINUING THE LEGACY

Eight years after his passing, the business ethics of SWARCO’s founder Manfred Swarovski are still being closely adhered to as the company he created in the same year as the first moon landing continues to grow from strength to strength.

“I think SWARCO’s success, not only in North America, but worldwide, it is very much attributed to the philosophy that Manfred Swarovski espoused - we're in a global industry, but business is done locally. It was always very important to him that local management to be in tune with what's going on locally and that the local teams in the individual legal entities be empowered to do what was right for the business in their area, in their region,” he explains. “At first glance a bead is a bead, right? Well, it’s not! Selling glass beads in Germany or Austria can be very different than selling glass beads in the US, even though it's a similar product. What makes us unique as a company is our ability to strike a balance between leveraging scale and standardizing processes without losing flexibility and taking away what our local entities do well in their respective markets.

SWARCO INDUSFERICA

ENGINEERED FOR INDUSTRY



SWARCO Indusferica is by no means a new company, but by way of an introduction to its glass bead expertise for the traffic and highways sector, DRIVE ON invited Thomas Auinger to provide an insight into its inner workings.

Contact:
Lisa Steinegger
lisa.steinegger@swarco.com

Industrial performance is built on precision, reliability and scale. In paints and coatings, plastics and adhesives, and building and construction, materials must perform consistently under demanding conditions. They must behave predictably, integrate seamlessly into existing processes and deliver results day after day. Glass beads play a critical role in enabling this level of performance, and we have built our business around delivering them with purpose.

Lower Austria-based SWARCO Indusferica, founded in 1969, views glass beads as functional industrial materials, not as commodities. Every application starts with a clear understanding of technical requirements, process conditions and performance expectations. From surface quality and durability to material stability and process efficiency, our solutions are designed to support real-world industrial needs.

Sustainable impact is integral to how we operate. We embed responsible sourcing, resource-efficient manufacturing and circular material strategies into our processes to reduce environmental impact while safe-guarding product performance.
For us, sustainability is not an isolated goal. It strengthens reliability, quality and long-term value for our customers and their applications.

LOCAL BUSINESS, GLOBAL INDUSTRY

Global industries depend on secure supply. Our manufacturing and delivery capabilities ensure consistent specifications, dependable availability, and on-time delivery across continents. By combining worldwide reach with local expertise, we support our customers wherever they operate, enabling stable production and confident planning.

We develop and manufacture high-performance glass bead solutions engineered for advanced applications. Our products enhance functionality and durability, support surface performance in coatings, improve material stability in plastics and adhesives, and contribute to strength and longevity in construction applications. Through application-driven development and close collaboration with customers, technical requirements are translated into scalable and reliable solutions.

Resilient growth guides our long-term direction. Continuous investment in technology, capacity and expertise allows us to adapt to evolving market requirements while maintaining operational stability. This approach ensures progress without compromising quality, consistency or supply reliability.

FROM STRATEGY TO EXECUTION: A PEOPLE COMPANY

Our people are the foundation of our performance. A strong corporate culture built on safety, integrity, accountability and continuous improvement empowers our teams to take ownership and deliver excellence every day. Their expertise and commitment turn strategy into execution.

Operational excellence underpins everything we do. Disciplined processes, rigorous quality management and continuous optimization across the value chain ensure efficient operations and consistent product performance at scale. This operational discipline enables us to meet the high technical and reliability expectations of industrial customers worldwide.

As an industrial partner, we develop and supply precision-engineered glass bead solutions for paints and coatings, plastics and adhesives, and building and construction, combining responsible production with global reliability.

This is how SWARCO Indusferica brings its industrial purpose to life.

DEVELOPING NEW SYNERGIES

Contact:
Francisco Sala
francisco.sala@swarco.com

When the SWARCO Group acquired the City Mobility Division of LACROIX in March 2025, the deal included the French company's Spanish operations. General Manager Francisco Sala Zamarbide spoke to DRIVE ON about how the process unfolded and what being part of the wider (and expanding) SWARCO family means.

WHERE ARE YOU LOCATED?

We are located in Alcobendas in Madrid, where we operate both our headquarters and our production facility.

HOW MANY PEOPLE DO YOU EMPLOY?

We employ around 30 people across engineering, operations, production, sales, administration and management.

WHAT IS YOUR BUSINESS FOCUS?

Our business focuses on designing, manufacturing and integrating intelligent traffic solutions. Our main areas include Variable Message Signs (VMS), Passenger Information Displays (PID), and B2X communication technologies. We also maintain a strong commercial focus on LED optics for the Spanish and Latin American markets.

WHAT DO YOU PRODUCE ON YOUR PRODUCTION FLOOR?

We manufacture VMS and PID units adapted to the technical requirements of our customers and to national and international market specifications. Other products, such as traffic signals and certain panel technologies, are sourced from SWARCO Futurit in Austria, with whom we have developed strong industrial and commercial synergies.

WHO ARE YOUR MAIN CUSTOMERS?

Our main customers include the Spanish Traffic Authority (DGT), major international integrators such as Indra, SICE, Alstom, and Kapsch, as well as public administrations and transport operators.

WHAT WOULD YOU SAY IS YOUR FOCUS MARKET?

Our core market is Spain, with a strong orientation toward interurban and urban traffic management. We also have significant activity in the railway, metro, and tramway sectors through passenger information systems, which was the one product range that SWARCO didn't really have.

DO YOU ALSO HAVE AN EXPORT BUSINESS?

Yes, we do. Our primary export markets are in Latin America - particularly Mexico, Colombia, Costa Rica, Panama, Peru, and Chile. Additionally, we supply products both to other SWARCO Group companies and to international integrators operating worldwide.

CAN YOU TALK ABOUT A NOTABLE ORDER YOU RECEIVED RECENTLY? IF YES, WHICH ONE?

A recent notable order was the supply of more than 600 Passenger Information Displays for the Tren Maya project in Mexico, one of the largest mobility initiatives in the region. We also continue to secure significant projects with the DGT in Spain.

HOW DID THE INTEGRATION PROCESS INTO THE SWARCO GROUP GO?

The integration represented a major transformation for us. Coming from LACROIX, a French organisation with a very different way of operating, we have had to redefine our processes, evolve our culture, and adopt new management and development practices. Today we are fully aligned with a clear product roadmap and a strategic vision for the future. We were made to feel part of the SWARCO family straight away, which was really important. For example, very early on I had to email someone at the company that I didn't know and they replied almost immediately and were very welcoming.

WHAT BENEFITS DO YOU EXPECT FOR YOUR BUSINESS DUE TO THE INTEGRATION INTO THE SWARCO GROUP?

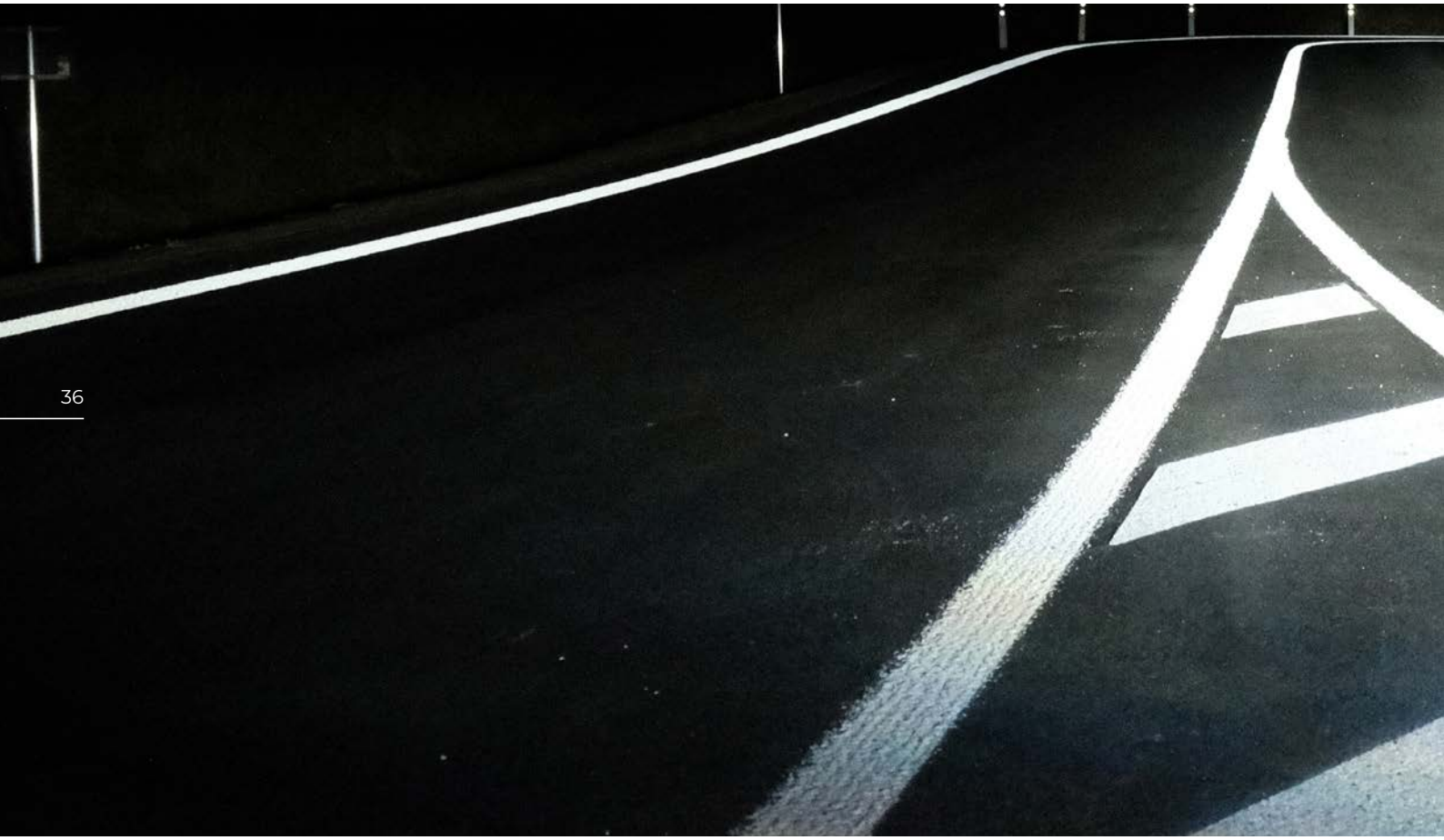
We expect substantial benefits through technological cooperation, shared industrial capabilities and international reach. The Group structure allows us to participate in global projects, develop new synergies and strengthen our position both in Spain and internationally. The mentality is very different at SWARCO – I can only say that it's correct! Everything is done in the right way.

WHAT DO YOU EXPECT FROM SWARCO'S PRESENCE AT INTERTRAFFIC AMSTERDAM?

Our expectation is to welcome a large number of Spanish and Latin American customers and showcase the full capabilities of the SWARCO Group. Intertraffic is the ideal platform to strengthen relationships, present our latest solutions, and support Spanish-speaking visitors, who often do not receive dedicated attention at international events.

BUILT TO PLAST

SWARCO COLD PLASTIC ROAD MARKING SYSTEM WITHSTANDS 12 MILLION WHEEL PASSES



The performance quality of road markings is particularly evident when subject to permanent traffic load, in darkness, and in adverse weather conditions. While many systems deliver good initial visibility, very few can maintain it over time. In this context, durability is not measured in months or years, but in millions of wheel passes

With SWARCOPLAST G601, SWARCO Road Marking Systems introduces a high-performance cold plastic system that maintains outstanding visibility even after 12 million wheel passes – a level far beyond current regulatory requirements. “We wanted to understand how far we could push cold plastic technology,” says Mario Nöllge, managing director of SWARCO Limburger Lackfabrik in Germany. “The results clearly show that our material enters a new dimension.”

Contact:
Mario Noellge
mario.noellge@swarco.com

Featured at INTERTRAFFIC AMSTERDAM 10 - 13 MAR 2026

ON STAND 07.227

In laboratory testing, according to EN 13197, road marking systems are subject to simulated traffic load at the German Federal Highway Research Institute (BASt). Even the highest performance class requires resistance to only 4 million wheel passes. SWARCOPLAST G601 exceeded this benchmark by far. After 12 million wheel passes, the system still delivered retroreflective values well above the minimum limits defined in EN 1436 – a result that had never been previously achieved by a cold plastic road marking system.

A HIGH-PERFORMANCE COMBINATION

The exceptional long-term performance of SWARCOPLAST G601 is the result of a carefully balanced system. The cold plastic matrix provides extreme abrasion resistance, while the embedded SWARCO SOLIDPLUS glass beads ensure reliable retroreflection. Unlike standard beads made from recycled float glass, SWARCO SOLIDPLUS beads are manufactured from carefully selected raw materials and feature a higher refractive index (1.6–1.7). Additionally, they are surface-treated to enhance chemical bonding with the polymer matrix of the cold plastic. This significantly reduces bead loss under heavy traffic and preserves optical performance over time.

A NEW LEVEL

After 12 million simulated wheel passes, SWARCOPLAST G601 in combination with SWARCO SOLIDPLUS glass beads exhibited the key values on the next page:

The minimum requirements by the EN 1436 standard are RL ≥ 150 mcd/m²·lx and RW ≥ 35 mcd/m²·lx. Even after extreme mechanical load, SWARCOPLAST G601 clearly surpassed these thresholds – particularly in wet conditions, where visibility is most critical for road users. Mario Nöllge comments: “What impressed us most was not just the absolute values, but the fact that the remaining retroreflection after 12 million wheel passes was still higher than the initial values typically achieved with standard glass beads.

AND WHAT ABOUT THE PERFORMANCE UNDER REAL TRAFFIC EXPOSURE?

Field trials on a German federal road underpin the BASt laboratory findings. Applied as an agglomerate marking with SWARCO SOLIDPLUS beads, SWARCOPLAST G601 showed extremely high initial visibility and maintained excellent performance after more than two years in service. The values measured on the road confirm what the laboratory tests already demonstrated: SWARCOPLAST G601 is designed not just to start strong, but to stay strong, as Mario Nöllge concludes: “These field results confirm that the laboratory tests are not theoretical extremes. Our material demonstrates the same level of robustness and visibility under real traffic conditions over an extended period of time.”

A SUSTAINABLE CHOICE FOR ROAD AUTHORITIES

By maintaining high RL and RW values even after 12 million wheel passes, SWARCOPLAST G601 enables road authorities to extend maintenance intervals without compromising safety. This results in fewer renewals, lower lifecycle costs, reduced resource consumption, and improved environmental performance. With the combination of this MMA-based cold plastic material and premium glass beads, SWARCO once again pushes the boundaries of what is possible in road marking performance – delivering visibility that lasts, even under heaviest traffic impact.

A CLEAR, CONNECTED PATH

The mobility division of LACROIX (LACROIX City) became part of the SWARCO Group in March 2025. As SWARCO Connect the French-based company provides a comprehensive range of solutions designed to enhance road safety, traffic management and mobility efficiency.

Catering to motorway operators, integrators, and local Cities & Authorities, SWARCO Connect ensures smoother traffic flow for all road users, including vehicles, public transport, and active mobility through Connected ITS. Its diverse portfolio includes Travel Time Systems, Connected Road Monitoring Systems, Bus Priority and V2X devices for interurban networks and cities. General Manager Guillaume Grolleau answers Kevin Borras's questions.

Contact:
Guillaume Grolleau
guillaume.grolleau@swarco.com

BONJOUR GUILLAUME. WHERE ARE YOU LOCATED?

We are in Saint Brieuc, close to the sea, a city in Brittany in north-western France. It's an area known for its telecommunications skills.

HOW MANY PEOPLE DO YOU EMPLOY?

Around 15 – these were the employees of LACROIX's City Ploufragan division that became SWARCO Connect last March.

WHAT IS YOUR BUSINESS FOCUS?

Our focus is primarily Connected ITS, and Cooperative ITS (C-ITS), particularly for highways, cities, national roads and so on. We typically provide digitalization information for travel time systems, notably via Variable Message Signs (VMS) and digital media. We have also a large set of detection systems used to monitor distant and isolated areas. For instance, we provide flood, wildlife and weather detection systems and so on and help to enhance safety and operational efficiency for road agencies, and for cities. One of our main activities is also focused on public transport systems and especially bus priority systems based on Connected, Cooperative and Automated Mobility (CCAM) and V2X technologies.

WHO ARE YOUR MAIN CUSTOMERS?

I would say National Road agencies, cities – we sometimes deal with cities directly, but mainly through integrators especially for the export market. So, we provide the key technologies to integrators who will build the whole system at the end. We send the product, the software, and then they will directly integrate it in their own country. As Lacroix we had around 80% of the French V2X market and 60% of the Spanish market through SWARCO Traffic Spain.

CAN YOU TALK ABOUT A NOTABLE ORDER RECEIVED RECENTLY?

In the past we had several main contracts. For instance, we have some global contracts to equip all national roads of Wallonia, in Belgium, so our products are widely deployed there. Also, our colleagues in Spain have some very strong activity in this area, but I have to say that we have just received an important award here in France for what I think is the most important connected vehicle project in Europe, called SCALE. And we were allowed to deploy up to 2000 vehicles here in France along national roads for maintenance and so on, to provide V2X technologies in two vest vehicles and once again, to enhance safety, to warn drivers about roadworks.

HOW DID THE INTEGRATION PROCESS INTO THE SWARCO GROUP GO?

I have to say, so it was quite efficient - lean and efficient. I think we are really benefitting from SWARCO's previous experience of integrating new companies into the family. There is a process called PMI, or post-merge integration, which is also really well managed. The main thing is that everything was done in a family friendly spirit, so it was really good. The focus was on how and where we can boost our business, in which areas and what are the savings that we can also provide? So far it's been great.

WHAT BENEFITS DO YOU EXPECT FOR YOUR BUSINESS DUE TO THE INTEGRATION INTO THE SWARCO GROUP?

Firstly, being part of such a big group – it was amazing as we had several successes within the first two or three months. I would say being able to call upon the group-wide expertise is another benefit, and the purchasing department have been really impressive. And I have to say, it's all inextricably linked to the spirit of entrepreneurship. Previously we were at a company doing a lot of good things over 15 years but it was sometimes quite tricky to navigate, because we were not always on the same page. At SWARCO everyone is committed to deliver the solutions, so it's as if all our colleagues see it as trying to solve the same problem, so we work towards a solution together.

So being part of SWARCO means that our strategic path is quite clear: to deploy our solution internally with the help of other SWARCO regions worldwide. We have had previous experience of this reach as we worked for a couple of years with SWARCO Spain, which was also part of Lacroix, but it is exactly what we want to do. What SWARCO Spain achieved is particularly impressive. They became a key player in Spain in the Connected ITS market and I'm convinced that we can achieve the same kind of progress in several regions, namely Southern and Eastern Europe, Belgium and even the Middle East. I think SWARCO will also benefit from integrating us into the Group, too.

WHAT DO YOU EXPECT FROM SWARCO'S PRESENCE AT INTERTRAFFIC AMSTERDAM?

This is undoubtedly one of the main shows for the ITS community. It's a unique place to meet our customers and partners from all over the world in the same place at the same time. It's important for us, and our customers, to show that being part of SWARCO means that we are now an even stronger proposition than we were before, with a strong presence all over the world.

SETTING A NEW STANDARD:

In May 2025, SWARCO took a step that quietly changed the conversation in the road marking industry: we published the first Environmental Product Declaration (EPD) for reflective glass beads worldwide. The EPD for our retroreflective beads didn't just add another document to the shelf – it made something visible that had long been complex and mostly hidden: the real, measurable environmental footprint of a product that helps keep roads safe every day. The response was immediate. Customers, partners, and even competitors took notice because this EPD sets a new reference point.

Contact:
Friedrich Wiesinger
friedrich.wiesinger@swarco.com

THE NEXT MILESTONE

And the story didn't stop there. With the newly published EPD for our SWARCO SOLIDPLUS premium glass beads, we are extending this transparency into the top tier of our portfolio. It's a clear signal: This is becoming a new standard for how we develop, produce, and communicate what we do. At the same time, SWARCO has already gone beyond glass beads: EPDs for selected road marking materials have been elaborated as well, a key starting point for scaling this across our core portfolio.

WHY WE INVEST SO MUCH EFFORT

So why are we doing this? At heart, EPDs are about credibility and control. Road marking systems are expected to deliver performance, durability, and safety – and increasingly, they are also expected to show their environmental impact in a way that is understandable and comparable. Instead of leaving that story to assumptions or marketing claims, SWARCO wants to tell it with numbers that are verified and trusted. That's not the easy path, but it is the honest one. And it helps us make better decisions ourselves: once you see where emissions truly come from, you can start reducing them in a targeted way.

INSIDE THE EPD JOURNEY

Producing an EPD is not a "paper exercise." It is a deep look into everything that happens before a product ever reaches the road surface. For each EPD, our production sites across Europe collect detailed information on materials, energy use, transport flows, waste streams, and process steps. Since the data isn't ready-made and must be traced, checked, and shaped into life-cycle models, each EPD becomes a true team effort, with colleagues from different countries

joining forces to bring it to life. Hundreds of pages of background documentation were compiled to make these EPDs possible. That's why strong in-house expertise is essential: in March 2025, two colleagues completed the Qualified Eco EPD Officer training, bringing this highly specialized know-how into SWARCO and strengthening our ability to deliver EPDs efficiently and with full accuracy.

WHAT COMES NEXT

Where are we now? We've already published several EPDs for glass beads at the product group level, as well as for selected road marking materials – a solid foundation to build on. But the real leap forward is still ahead. From 2026 onward, SWARCO will introduce a new EPD software tool at production sites in Austria and Germany, with more locations to follow. This isn't a simple software swap; it reshapes the whole process. Instead of starting verification from zero for every single product group, core verification will be conducted at the plant level, and product-specific background reports will be generated automatically rather than manually. That changes everything: what once took up to one full year is now expected to be completed in about two weeks – faster, easier to handle and much lower effort.

Even more exciting is what this will unlock for customers. Our goal is to make environmental product data sheets as routine and accessible as technical data sheets. Going forward, customers should be able to receive an environmental footprint document tailored to their specific orders with the push of a button, bringing transparency to everyday business, not just special projects.

EPDS IN A NUTSHELL

EPD (Environmental Product Declaration)

A standardized, independently verified document that communicates the environmental impact of a product in a transparent and comparable way. EPDs are based on Life Cycle Assessments and follow defined Product Category Rules as well as the standard EN15804 for construction products.

FOUNDATIONS: PRODUCT CATEGORY RULES (PCR)

Product Category Rules are the methodological "rulebook" for creating EPDs in a specific product category. They ensure that all EPDs are calculated the same way, so results are fair and comparable. At SWARCO, PCRs for road marking systems and for glass beads for road marking systems provide this framework.

LCA (LIFE CYCLE ASSESSMENT)

The scientific method behind an EPD, calculating impacts across the lifecycle of a product (group) according to ISO 14040/44. At SWARCO, we use cradle-to-gate and cradle-to-grave approaches, meaning we assess everything from raw material extraction ("cradle") through production and packaging up to the factory exit ("gate") as well as the entire remaining life cycle, i.e., application, use, and end-of-life treatment such as recycling or disposal ("grave").

EPDS AT SWARCO

ROAD SAFETY AMBASSADORS

Contact:
Danijela Stevinovic
Danijela.stevinovic@swarco.com

It shall have a long-term perspective, be meaningful for the entire group, have a social and environmental impact, and have a SWARCO context. These were the criteria when in 2022 we asked SWARCO employees for ideas concerning our future Corporate Social Responsibilty (CSR) Lighthouse Project. The outcome: the SWARCO “Young Mobility Ambassadors Program” (YMAP), launched in 2024, sensitizing teenagers for particular safety issues in traffic.

YMAP is based on three pillars: market research, educational materials and the Young Mobility Ambassadors Award. At the beginning we engaged an external partner to carry out market research, including a survey on road safety at Austrian schools focusing on the risks faced by young people in the current mobility context. The results formed the basis for a Traffic Safety Index for participating schools. In addition, traffic psychologists, as external partners, developed an age-appropriate Traffic Safety Quiz focusing on distraction in road traffic.

With the beginning of the 2024/25 school year in autumn 2024, school classes from all over Austria (students aged 14 to 19) were invited to develop and submit their project ideas on how to tackle distraction in road traffic. The Traffic Safety Quiz served as an incentive and starting point for their project work. Project manager Danijela Stevinovic was thrilled with the response the initiative received. Schools from seven federal states took part and submitted a total of 28 projects. The incentive: up to € 9000 prize money for the best projects selected by a jury from SWARCO experts, the Tyrolean State Police Directorate, and the Austrian Road Safety Board. In total we reached 660 youngsters and sensitized them for road safety and their personal role in improving it.
All participating schools have provided

feedback highlighting the importance of road safety as a topic. As part of the YMAP, young people engaged with road safety issues in a playful and creative way, working on their projects with great enthusiasm – and learning a great deal about road safety in the process. The range of submitted media was very diverse and included videos, app concepts, comics, posters, a Scratch game, a video script, digital warning messages for social media, and a 3D-printed model of a pedestrian crossing.

The winning class of the initial YMAP launch came from Tyrol, from HTL Innsbruck, with a 3D-printed model of a pedestrian crossing with additional light projections in red or green. The class was welcomed at the SWARCO TRAFFIC WORLD in April 2025 to receive the prize money of € 4,000. In the afternoon, the students in addition enjoyed an exciting training programme with the SWARCO RAIDERS American Football team. Second place went to Lower Austria and HTL Waidhofen an der Ybbs for the project “Easy Insurance” (€ 3,000 prize money), while third place was awarded to HAK Bregenz in Vorarlberg for the project “How to Lose Your Driving Licence as Fast as Possible” (€ 2,000 prize money). All participating young people earned the qualification of Young Mobility Ambassadors and commit themselves to acting as role models for their peers, promoting innovative ideas and measures to improve the safety of young people in road traffic, and actively supporting awareness-raising efforts.

YMAP in autumn 2025 went into the next round. The new topic: Why alcohol and drugs have no place in road traffic. “The resonance so far exceeds our expections by far”, says Danijela Stevinovic. “51 school classes already uttered their interest to submit projects, which means that our reach is already more than doubled.” And this time, SWARCO extended the geographical coverage by inviting also school classes all over the German state of Baden-Württemberg. The winners’ ceremony will take place in April at the SWARCO headquarters in Wattens, Austria.

At the beginning of the 2025/26 school year, students from the German-speaking part of Switzerland were invited to participate in YMAP, focusing on the topic of distraction in road traffic. Our YMAP CH team is delighted with the 26 projects that have been announced for submission!

We look forward to awarding many more Young Mobility Ambassadors.

Contact:
Nephele Cauchi
nephele.cauchi@swarco.com

Proud of their encounters with the elderly:
from left: Daniel Meier, Linda Lucie-Kleinheinz,
Danijela Stevinovic, Nephele Cauchi, Lisa-Marie Rohregger,
Jonas Schlichtmeier, Thomas Eller

GIVING BACK TO OUR COMMUNITIES

At SWARCO, we aim to make Corporate Social Responsibility an integral part of our future — shaping how we innovate, operate, and engage with the communities we serve. We envision a company where responsibility is not an add-on, but a guiding principle that drives lasting positive impact for people, society, and the environment.

Across regions and teams, employees contribute their time, expertise, and resources to support local communities and social initiatives. While these activities vary in scope and focus, they are united by a shared understanding: long-term success is closely linked to social engagement.

At the SWARCO headquarters in Wattens, a team of volunteers visited two local retirement homes to spend time with the residents, listening to their stories and capturing the memories that make each life unique. These encounters were brought together in a thoughtfully created memory book — a collection of personal histories designed to celebrate and preserve their experiences. The interviews focused on memories, particularly of travel, childhood and growing up during the war. The memory books were then returned to the residents, giving them a tangible keepsake to treasure and share.

Receiving the award of the first Corporate Venture within SWARCO: Göran Boivie and Niclas Sjöberg (2nd and 3rd from right) with jury members Michael Schuch (CEO), Laura Coconea (Head of Innovation), Lukas Schneider (CFO), and Peter Tomazic (Vice President RMS division)

Featured at

10 - 13 MAR 2026
INTERTRAFFIC
AMSTERDAM

ON STAND

02.222

They presented the winning project within our internal Corporate Venture ideas contest: Göran Boivie and Niclas Sjöberg from SWARCO in Sweden convinced the jury with FLEXICONTROL – a practical concept for the wireless temporary signalisation at intersections subject to roadworks. The prototype will be on display at Intertraffic Amsterdam.

The Corporate Venture ideas contest intends to address internal entrepreneurship. It is an invitation to surface employee-driven ideas and new concepts and to foster innovation within SWARCO. The winning idea will receive dedicated support and resources from SWARCO to help it grow and come to life. Such ideas could be a new product, an improved production process, a new working practice, process or tool.

Göran Bovie and Niclas Sjöberg entered the contest with FLEXICONTROL and eventually won the support of the jury after a shark-tank-style pitch. They departed from the challenge that there is a significant rise in temporary traffic management needs in Sweden by unprecedented levels of redevelopment and infrastructure renewal. Weaknesses of current temporary infrastructure are mere static control, no transparency within the traffic management system, no extra functionalities. Very often, the roadwork zones are not aesthetically pleasing, with cables oddly run between traffic light pole extensions. Given our expertise in traffic management, central systems, and communication between infrastructure elements, the value proposition of the two colleagues for municipalities, road authorities, and construction companies is to provide adaptable, secure, and integrated temporary traffic control solutions. These are intended to help cities maintain efficiency, collect data, and reduce disruption during urban transformation.

The Go-to-Market approach is the rental, service, maintenance, and also sale of temporary battery-driven one-way “shuttle signals” that work wirelessly. Part of the package is also the integration of ITC-3 mini traffic controllers, X-LINE traffic lights, poles, and sensors. Add-on services can be C-ITS functionalities, air pollution detection, countdown signals, emergency vehicle and public transport prioritization as well as adaptive traffic control.

FLEXICONTROL fosters the collaboration among our expert companies like SWARCO SVERIGE as system integrator, SWARCO TECHNOLOGY as controller manufacturer and AI competence center, SWARCO SOLUTION CENTER as developers of the urban traffic management platform MyCity, and SWARCO FUTURIT as leading LED traffic light producer. At Intertraffic Amsterdam, visitors will be introduced to the first FLEXICONTROL prototype.

FLEXICONTROL

WIRELESS TRAFFIC CONTROL FOR TEMPORARY ROADWORK ZONES

swarco
The Better Way. Every Day.

SWARCO's traffic lights experts lead once more the way when it comes to sustainability, environmental soundness, and a reduced CO_2 footprint.

COMBIA CIRCULAR is the world's first signal head largely made of post-consumer recycled polycarbonate. This forward-looking material philosophy reduces dependence on fossil raw materials, prevents waste, and optimizes the product's life cycle without compromising the expected qualities of traffic lights: elegant design, energy efficiency, UV-stabilized robustness, and quick and easy maintenance.

It goes without saying that **COMBIA CIRCULAR** is also a smart traffic light beyond red, amber, or green. It enables intelligent add-ons like the measurement of environmental parameters, the warning of pedestrians distracted by smartphones, the integration of acoustics for the visually impaired, and the AI-supported detection and classification of road users.

MEET SWARCO and our views on circular economy at **Intertraffic, stands 02.222 and 07.227 from 10 to 13 March 2026!**