Berlin, 24 – 27 September 2024

InnoTrans 2024 Report

InnoTrans

B2B-Magazine for the Railway Industry

No. 1 ■ 28th annual set ■ February 2024

Right on track

The harmonisation of train control systems aims to get more trains on European rails. Photo: Deutsche Bahn/Dominic Dupont

The rollout of the European Train Control System (ETCS) and the Future Rail Mobile Communication System (FRMCS) is entering the next phase with the entry into force of the new European Union Train Control, Command and Signalling Regulations (TSI CCS). The digitalisation of European rail transport is gaining momentum.

■ Another milestone has been reached on the road to the digitalisation of European rail transport with the new TSI CCS coming into force in September 2023. Harmonisation of the predominantly non-interoperable European train control and command systems with compatible systems, technologies and procedures is intended in order to improve capacity, safety and timeliness of rail transport in the European Union (EU) and the trans-European transport network. Trains should be able to travel from Paris to Bratislava or from Berlin to Palermo without having to change systems or even replace train drivers at national borders.

In line with climate targets, the European Commission stipulated in its 2011 White Paper that a major part of passenger transport over medium distances should be carried out by rail by 2050 at the latest. In the medium term, by 2030, it is aiming to triple the length of the existing high-speed rail network and create a dense rail network in all member states. Ultimately, the EU's high-speed rail network shall be fully developed. The EU Commission also wants to expand rail freight transport.

The digitalisation of rail transport plays a decisive role. The TSI CCS is an important guideline for achieving these goals. However, the specifications have not yet been defined for all subsystems and further research and development work is required. Among other things the radio communication and data communication subsystems specifications still have to be established.

ETCS rollout

In order to implement ETCS, extensive structural measures are required along the railway infrastructure. Tracks must be equipped with modern signalling technology to ensure the precise transmission of data and the interlocking boxes must be converted to ETCS, for example.

On the other hand, the rolling stock also needs ETCS-compatible equipment. For instance, sensors and communication equipment must be installed in trains to enable interaction with the new system.

So far, implementation has progressed differently country by country. Switzerland is regarded as being the pioneer, having migrated almost its entire rail network to ETCS. The Netherlands have also equipped most of their network, including both the Amsterdam-Utrecht and Rotterdam-Arnheim high-speed lines. In Germany, on the other hand, only around 500 kilometres of the rail network are ETCS-capable, including the high-speed Cologne-Rhine/Main connection. Construction is currently underway on the Leipzig-Dresden line. By 2030, all high-speed lines are expected to be ETCS-capable. Sweden wants to convert its network by 2035.

Decision on FRMCS subsystem

ETCS transmits information to train drivers directly through the Driver Machine Interface (DMI) in the driver's cab. This involves the exchange of data between Eurobalises in the track bed, balise antennas on the traction unit, turnouts and interlockings. This also has an impact on train radio communications. The digitalisation of the railway system generates far higher data volumes than the current GSM-R train radio can handle. GSM-R is based on the second generation of mobile radio (2G). However, GSM-R is no longer sufficient for the necessary real-time data transmission between train and the railway line.

The TSI CCS, which has now come into force, stipulates for the first time that FRMCS will replace GSM-R in the long term. During the transition period, the TSI introduces the Railway Mobile Radio (RMR). It comprises both GSM-R and FRMCS with the latter being based on 5G. (Read more about FRMCS on page 4.)

Field tests are expected to provide further specifications for FRMCS. To carry them out, the International Union of Railways (UIC) has launched the MORANE 2 project. Results are to be obtained by 2026. After that, there will be a follow-up TSI which will further specify FRMCS for the first time. The commitment to FRMCS last September makes it possible for the rail industry to combine the necessary conversions and installations on rolling stock and lines and thus reduce costs as well as line closures incurred during construction work.

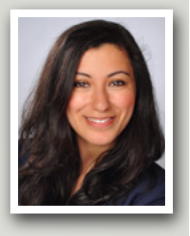
The ETCS signal displays a yellow arrow on blue background

Photo: Deutsche Bahn AG/Max Lautenschläger

COMMENT

AI: capitalising consistently on opportunities

Azar Mottale, Head of the Mobility Division at ZVEI



Poto: Studioline Photography

Artificial intelligence (AI) is conquering the business world at a breathtaking pace. Large technology providers are leading the way, but medium-sized enterprises have also become aware of the opportunities offered by AI. We see promising examples of applications in process automation and customer interaction, but even more and more in the development of new business models. When AI is used in production, it enables a more precise control of machines, optimises the usage of resources and minimises downtimes through predictive maintenance. The results are quite encouraging, with effects such as increased productivity and a better quality of manufactured goods. And in customer service, AI is revolutionising the interaction with customers. Advanced AI algorithms in chatbots, for example, offer personalised support at the highest level around the clock and help improve customer satisfaction while optimising the use of resources within the company.

AI analysis tools in turn strengthen data-driven decision-making. The automated analysis of large amounts of data supports the creation of forecasts and secures strategic decisions. This enables companies to utilise their resources more effectively and react more flexibly to market trends. Despite these numerous advantages, not all companies are really taking up the full potential of AI. The reasons often cited are the costs, but also uncertainties regarding the handling of data and their protection. It is also considered to be important that a company's own technical expertise is not perceived as sufficient and that AI specialists are scarce and expensive. In the new year, it will become increasingly important to overcome such hurdles.

CONTINUED ON PAGE 2

InnoTrans 2024: more innovative and international than ever before

Diverse networking opportunities and new exhibition formats await visitors at InnoTrans 2024 Photo: Messe Berlin GmbH

As the summit meeting of world market leaders, InnoTrans 2024 will bring together innovations and experts from all over the world. It is already clear that the exhibition centre will be full and multifaceted.

"How will we be mobile in the future? InnoTrans will provide answers to this question with numerous world premieres, valuable expert talks and exciting success stories. We can hardly wait until it finally gets going," says a delighted Kerstin Schulz, Director of InnoTrans. The 14th edition of the world's leading trade fair for transport technology and mobility from 24 to 27 September 2024 is more in demand than ever. As early as at the beginning of the year, InnoTrans was already fully booked. It is already clear now that there have never been so many international exhibitors. According to the current number of registrations, more than 60 percent of exhibitors are from abroad.

These include 18 international transport companies such as Deutsche Bahn (DB), Ferrovie dello Stato Italiane, Österreichische Bundesbahnen (ÖBB), China Railways, Polskie Koleje Państwowe (PKP), the Turkish railway company TCDD, Etihad from the United Arab Emirates, SAR from Saudi Arabia, RTA from Dubai, Infrabel from Belgium as well as the Korea Railroad Corporation (Korail) and the Moroccan Office National des Chemins de Fer.

And there is more, 16 international industry associations will also be showcasing the economic strength of the industry in their respective countries. For example, Switzerland, Argentina, Korea, Spain, China, Great Britain, Portugal, the Czech Republic, Japan, Slovakia, Australia and Brazil will be represented with joint booths each. Ukraine will also be back at InnoTrans 2024.

AI in focus: AI Mobility Lab

The new AI Mobility Lab exhibition segment in the Public Transport trade fair segment in Hall 7.1 a is proving very popular. The area with companies from the fields of artificial intelligence (AI), robotics and cybersecurity for transport systems is almost fully booked. Complete booths are still available for interested companies. Among others, Konux, the first AI scale-up with real solutions for predictive maintenance, network capacity utilisation and traffic monitoring as well as for the planning of railway infrastructure management, will be there. Exhibitor Isarsoft will be presenting AI-based video analysis for planning, operations and safety. Other exhibitors include DRAIVE GmbH, Nexterite, Tritem Microsystems GmbH, Ostirion and Engineering Ingegneria Informatica S.p.A.

A comprehensive accompanying programme awaits visitors. The keynote speech by start-up entrepreneur and cybersecurity specialist Mirko Ross has already been confirmed. He will talk about the security of new technologies.

Innovation and the future of rail gastronomy: Hospitality Forum

Services are becoming increasingly important in the competition for passengers. InnoTrans is responding to this development with the Hospitality Forum to be organised by the International Rail Catering Group (IRCG). The forum will bring together experts to exchange their views on the future of catering for passengers, complementing the Travel Catering & Comfort Services exhibition area in Hall 1.1. It will take place on 25 September 2024 from 2 pm to 4 pm in the CityCube Berlin.

Well networked: Railfluencer Festival

The première of the first international Railfluencer Festival is also all about exchanging ideas. As part of InnoTrans, influencers and bloggers will meet representatives of the mobility industry on Friday morning, 27 September 2024. They will receive first-hand information and have the opportunity to make valuable contacts.

CONTINUED COMMENTARY

While 2023 is seen as the year of AI inventions, with ChatGPT as a prominent AI eyecatcher, 2024 will be the year of AI applications. This makes it even more urgent for companies to explore AI, possibly in small steps to begin with. For example, when it comes to optimising processes. Such a low-threshold approach is also useful for gradually introducing employees to AI and, if necessary, reducing existing fears. There is no time to lose. The speed at which AI has spread recently has been breathtaking. And yet it will probably never be that slow again.

Where innovation starts rolling

International exhibitors presenting themselves at the Bus Display in the centrally located Summer Garden of the trade fair Photo: Messe Berlin GmbH

At the InnoTrans Bus Display in the Summer Garden, manufacturers will be showing their latest models in motion.

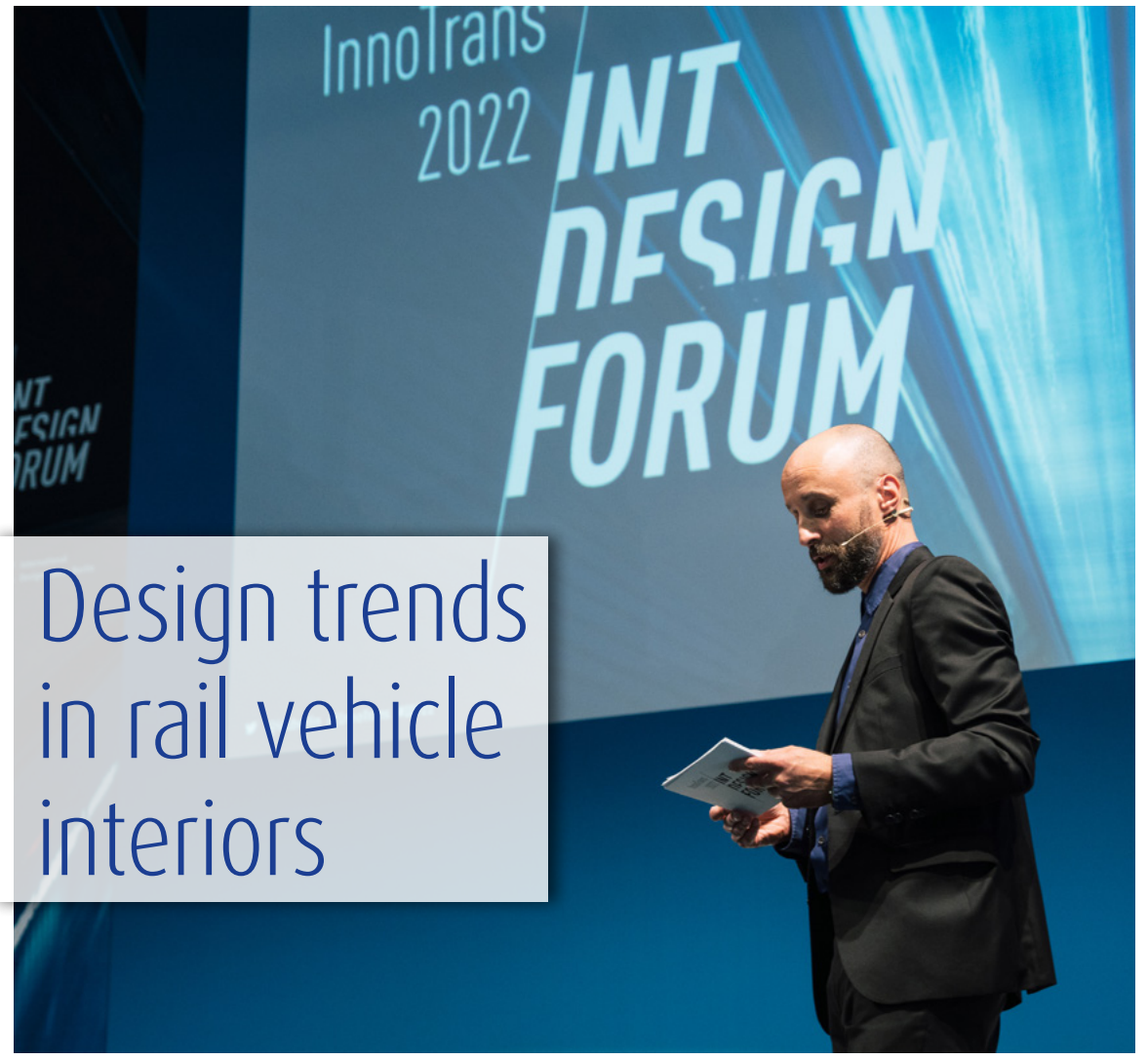
Better comfort, high safety standards and environmentally friendly drives await trade visitors to InnoTrans 2024 at the Bus Display. This is where the world's leading trade fair brings together manufacturers, suppliers and buyers from transport companies. In the centrally located Summer Garden at Messe Berlin, exhibitors will showcase the latest public transport vehicles as well as charging infrastructure solutions for alternative drive systems. Trade visitors will be able to inspect bus innovations live and take test drives on the 500 metre long test track in the Summer Garden, which is known as the Demonstration Course.

Exhibitors at the Bus Display include Daimler Buses, Van Hool, Jebsen & Jessen, K-Bus, Kiepe Electric, EBUSCO, Ferrovie dello Stato Italiane, Automecanica Medias from Romania and BYD from China.

As part of the InnoTrans Convention, the International Bus Forum will take place on 26 September 2024. Organised by the German Transport Forum (DVF), the forum will offer first-hand information and opportunities to exchange ideas with industry representatives.

IMPRINT

PUBLISHER: MESSE BERLIN GMBH · MS Mobility & Services · Messedamm 22, 14055 Berlin GERMANY · T +49 30 3038 2376 · innotrans@messe-berlin.de · www.innotrans.de
CONCEPT, ADVERTISING: DVV Media Group / Eurailpress, Hamburg
ADVERTISEMENTS: ilkay.witthuhn@dvvmedia.com
EDITORIAL MANAGEMENT: Messe Berlin GmbH, Berlin · Ingrid.mardo@messe-berlin.de and marion.frahm.extern@dvvmedia.com **IN COOPERATION WITH** mechthild.seiler@dvvmedia.com · jennifer.schacha@dvvmedia.com
LAYOUT AND DTP: GrafoService GmbH, Henstedt-Ulzburg · info@grafoservice-gmbh.de
PICTURE CREDITS : Messe Berlin GmbH as well as photos from the mentioned manufacturers and DVV Media Group
TRANSLATION: reinhard@christeller.net



Ake Rudolf on stage at the International Design Forum 2022 Photo: Sebastian Schiefner, IDZ

Design trends in rail vehicle interiors

The rail industry is witnessing a fascinating evolution in design, pushing boundaries and redefining the passenger experience. Ake Rudolf, Strategic Director of the International Design Center Berlin (IDZ) and organiser of the International Design Forum, provides insights into the design trends which are currently shaping the industry's landscape.

While planning the upcoming International Design Forum, I have recently been reflecting on the discussions at last year's InnoTrans Convention, which gave us a deep dive into the ever-evolving world of railway interiors and public transport solutions. It is my pleasure to explore some of the latest design trends right here.

First up is the focus on user-centred design, flexibility and sustainability. Designers and manufacturers aim to balance capacity and comfort, ensuring that interior spaces adapt to various passenger needs and changing demands.

There is a buzz around creating versatile zones within train interiors. These zones cater to different activities – socialising, dining, work and relaxation – offering tailored experiences based on passenger preferences.

Modular designs are gaining ground, enabling partial replacements and refurbishments to keep trains in sync with evolving needs. This approach allows for more adaptable and cost-effective adjustments to meet changing requirements and seasonal demands.

Another trend involves drawing insights from various sectors beyond railways, helping adopt innovative practices and technologies, enriching the design process for train interiors.

Prototyping, user testing and evaluation remain crucial. These methods help validate design concepts, ensuring that they resonate with passengers' expectations and improve travel experience.

For InnoTrans 2024, the International Design Forum will dive into these ongoing trends, focusing on the current dynamics in rail interiors. #IDF24 will concentrate on the user-oriented development of interiors and explore pioneering future-oriented public transport solutions for local and regional transport. We will ensure that the International Design Forum continues to serve as a platform to discuss, analyse and adapt to the industry's present and future design trends.

Design in public transport is the focus of the **International Design Forum,** which IDZ is once again organising together with InnoTrans. The symposium willtake place on **25 September 2024** as part of the InnoTrans Convention.

Frédéric Hénon, Director of the UIC Freight Department

Frédéric Hénon Photo: UIC

Effective as of 1 December 2023, Frédéric Hénon has become Director of the Freight Department of the International Union of Railways (UIC). He succeeds Sandra Géhénot, who is now in charge of the Europe region. At the same time, the Freight Department has also taken over the management and coordination of all UIC activities in connection with Digital Automatic Coupling (DAC), including the EU RAIL programme. Hénon previously worked for Eurotunnel, the French National Railway Safety Agency (EPSF), Eurostar and the French railway company SNCF and others. He joined UIC in 2020 as Head of Operations and Safety.

Alstom to deliver tram project for Al-Ula oasis

Animation of the planned tram to the UNESCO World Heritage Sites Photo: TOM Advanced&Creative Design

Alstom and the Royal Commission for Al-Ula have signed a contract worth over 500 million euros for the realisation of a tram project in Saudi Arabia.

Alstom will be in charge of system design, integration, installation, testing and commissioning of the future battery-powered tram line which will be free of overhead lines. The Group will supply 20 three-car Citadis B vehicles, which will be used in double traction, as well as the power supply, signalling, communication and depot equipment. The vehicles will be produced in France and Alstom will also maintain them for ten years. The entire 22.4 kilometre line with 17 stops and without overhead power supply shall also connect Unesco World Heritage Sites in Al-Ula, such as the old town of Al-Ula (district 1), Dadan (district 2), Jabal Ikmah (district 3), the Nabataean Horizon (district 4) and the historic town of Hegra (district 5). The oasis of Al-Ula is located in north-western Saudi Arabia, about 150 kilometres south-west of Tayma and 400 kilometres north-west of Medina.

IN FOCUS

PUBLIC TRANSPORT
INTERIORS

Change please!

The digitalisation of rail transport is entering the next phase. New broadband technologies and software solutions enable communication at all levels and on both the operator and user side. Artificial intelligence is increasingly used to meet the growing demands regarding passenger volumes, safety, efficiency and comfort.

Train-to-ground communication via MCX

NG CeCoCo integrates MCx communication in the control room with applications such as video

Photo: Teltronic S.A.U.

The Spanish company Teltronic S.A.U. has developed a Mission Critical Service (MCx) portfolio which is ready when it comes to the coming implementation of the Future Railway Mobile Communication System (FRMCS).

Broadband networks play a crucial role in train-to-ground communication in the demanding railway sector and the introduction of FRMCS is progressing steadily. The 3rd Generation Partnership Project (3GPP), the body responsible for standardising broadband technologies at a global level, is working closely with the International Union of Railways (UIC). The aim is to define communication in such a way that it can be used not only as a further development of the GSM-R radio system currently used in Europe on main and high-speed lines. It should also serve as an operating model for mass transit or local transport. As a result, in recent years, railway operators have begun to consider the evolution of their current networks towards new broadband technologies for all communication needs, including critical communications, automatic train control and other value-added applications.

At this point, Mission Critical Services (MCx), which refer to a range of critical communications solutions for broadband networks, providing voice (MCPTT), data (MCData) and video (MCVideo) services and the infrastructure to support these services, play an absolutely fundamental role. These MCx are standardised by 3GPP and, together with 5G, are the pillar on which FRMCS and the digitalisation of rail transport will be built.

One step closer to FRMCS

With its 50 years of experience in critical communications, Teltronic has developed a complete MCx portfolio ready for the future implementation of FRMCS. This solution firstly includes private LTE/5G infrastructures which provide reliability and availability together with Quality of Service (QoS) and Priority and Preemption (PP) functionalities to deliver mission-critical services. Secondly, it is capable of on-board FRMCS to manage train-to-ground communications at all times and enable integration with other subsystems – video surveillance, passenger information services (PIS), public address (PA), passenger emergency alarms (PEA) or Train Control and Monitoring System (TCMS).

Teltronics dispatch development NG CeCoCo furthermore integrates MCx communication in the control room together with other networks or applications such as video. This provides a powerful solution for railway operations dispatchers. As an example, these have been used and tested in real applications on the Delhi-Ghaziabad-Meerut railway corridor. There, Teltronic was selected to supply and integrate the on-board equipment, the terminals and the control centre solution to provide MCx services for this 82-kilometre route with trains travelling at speeds of up to 180 kilometres per hour.

NEWS

Timetable design for smart cities

GoalRail makes it easier to plan intelligent transport

Photo: FAi Inspire/Adobe Stock/ Goal Systems

Public transport plays an important role in smart city strategies. The Spanish company Goal Systems has developed the GoalRail planning solution to optimise transport timetables for intelligent transport.
This is a dynamic solution for rostering staff and managing materials for companies in the rail sector in order to improve processes, reduce operating costs and minimise the environmental impact. The tool allows maintenance and operations to be planned together, ensures compliance with legal and corporate regulations and improves strategic decision-making. In addition, GoalRail faciltates effective communication with employees. All activities related to the operation of rolling stock can be integrated into the planning process. GoalRail is suitable for all modes of transport - trains, buses, metros and trams. According to Goal Systems, it has over 30 years of experience in the railway sector and is present in more than 25 countries on five continents.

A plea in favour of rail

Freight and passenger train from Etihad Rail

Photo: Etihad Rail Company PJSC

Rapid population growth and high rates of urbanisation characterise the current transformation in the United Arab Emirates (UAE) and the entire region. Etihad Rail Company PJSC, the developer and operator of the UAE's national railway network, is committed to a rail system which supports this growth.

"Rail transport plays a crucial role. It is sustainable by nature as it takes cars and lorries off the road," says Adhraa Al Mansoori, Acting Director of Public Policy & Sustainability at Etihad Rail. "By shifting a large part of transport from road to rail, Etihad Rail aims to reduce carbon emissions and relieve road congestion in the UAE. This is also in line with the country's overall sustainability goals," she adds.

Sustainable transport is in line with the United Nations 2030 Agenda. It contributes directly to 13 of the 17 Sustainable Development Goals (SDGs). In order to achieve the goals of the Paris Agreement, existing transport systems must be decarbonised and the growing demand for passenger and freight transport, which is expected to double by 2050, must be met.

Sustainability in a broader sense

For Etihad Rail, the benefits of rail go beyond sustainability: they say that railways promote inclusive economic growth, create jobs and bring financial benefits. Al Mansoori cites the Moroccan state-owned railway transport and infrastructure company ONCF as an example. "With the support of the Abu Dhabi Fund for Development, ONCF, Etihad Rail's partner, inaugurated a 320-kilometre-per-hour high-speed line in 2018."

In 2022, ONCF's high-speed train "Al Boraq" carried 4.2 million passengers, resulting in a profit of over 280,000 euros (301,000 dollars) per year for the community. This resulted 825,000 fewer cars on the roads, 150 fewer accidents per year and a significant reduction in carbon emissions.

The aim of Etihad Rail is to bring about change in the UAE and convince people to switch to public transport, she says. By 2030, Etihad Rail aims to carry 36.5 million passengers and provide fast, safe and comfortable intercity travel on its network, while reducing congestion and journey times.

Multimodal connectivity

Etihad Rail is also focusing on multimodal connectivity, working with public transport authorities to coordinate the network with different existing and future modes of transport to create an integrated national system covering the UAE's major cities and regions.

The collaboration with companies such as Uber aims to incorporate ridesharing services to standardise travel planning. "With this ambitious project, the UAE aims to balance economic growth, environmental protection and improved connectivity to create a socially transformative, financially rewarding and promising future," says Al Mansoori.

Efficient and easily biodegradable

Products without environmentally harmful ingredients

Photo: Blue & Green AB

The train cleaning agents from the Swedish company Blue & Green AB are highly efficient and can also be decomposed by biological means. They have been awarded the "Nordic Swan" eco-label by the Nordic Council of Ministers.

At a time when sustainability is dominating the corporate agenda - particularly through initiatives such as the European Union's Green Deal, which emphasises the importance of a cleaner, more sustainable future - companies in all sectors are being encouraged to act. There is a particularly urgent need for the chemicals sector to lead the way in environmentally friendly innovation. The Swedish company Blue & Green has aligned its train cleaning concept with the global goals and has received the "Nordic Swan" certificate from the Nordic Council of Ministers for its products.

Eco Wash Green from this product range has efficient cleaning power based on chemical compositions which protect the environment. Train Wash Oxal removes persistent brake dust without harming the environment. The gloss cleaner Eco Shine 'n Dry disintegrates with minimal environmental impact.

Award-winning products

Blue & Green AB aims to produce superior cleaning products which are also geared towards a sustainable future. The company claims, "The endeavour is not only a tribute to the philosophy of green cleaning - the process of using cleaning solutions and methods that keep us and our environment healthy and free from toxins - but also a significant step towards the milestones of the Green Deal, showing that science and sustainability can work in harmony."

Indoor navigation made easy

GoodMaps is available at Manchester Piccadilly station

Photo: GoodMaps Inc.

GoodMaps Inc. provides users with a comprehensive tool for indoor navigation, including the often maze-like railway stations, with the app of the same name. It is now available worldwide.

Finding your way to the toilets, figuring out where to get refreshments or food or how to get to the platform can be a challenge in large transport hubs. Many millions of people around the world experience this every day. These problems are particularly serious when personal safety or additional routing requirements have to be taken into account. It is not always easy to find their way around and reach the train on time for blind or visually impaired passengers, parents with small children, older visitors or those unfamiliar with the area.

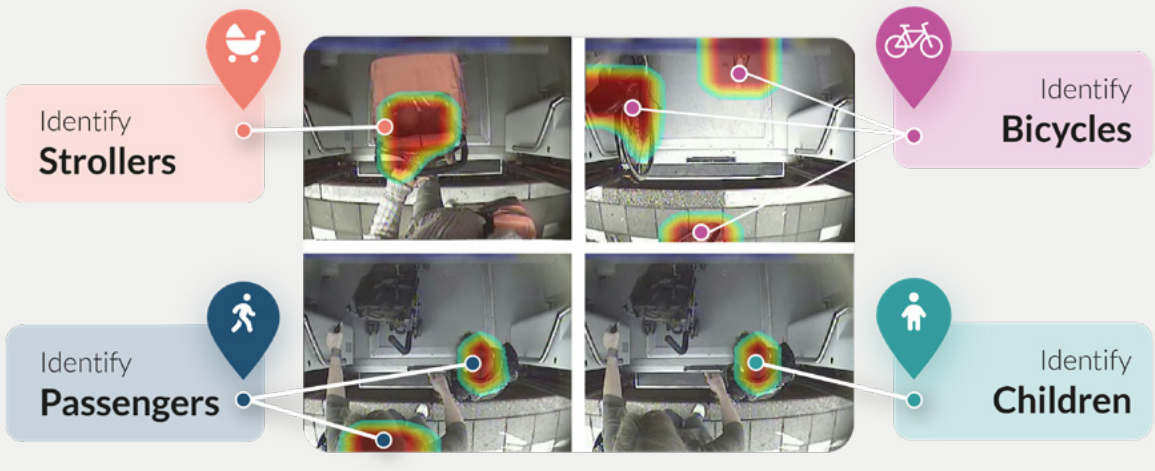
The British TransPennine Express (TPE) railway company entered into a partnership with GoodMaps to enable its passengers to enjoy their journey more easily. Implementing the navigation service at TPE's nineteen stations was simple. Accessibility and Transport Integration Manager Chris Jeffery said, "If we had chosen a technology that required the installation of beacons or equipment, we would have needed access permissions, complex risk assessments and other requirements for historic buildings. But with GoodMaps, we have a surveyor scanning the station with a small handheld device, so these are not required." The service offers benefits to all travellers, says Jeffery. "Some may have travel anxiety, others want the reassurance of finding their platform on time, GoodMaps offers that."

A new way to find your way

With a wide range of multimodal options to find your way – including stepless routing, voice and text-based directions and a variety of language options – the GoodMaps app offers advanced features which further improve the overall passenger experience. These include a precise 2D map and a fully immersive augmented reality view. With these additions, the app now features an extended range of functions, allowing a far greater number of people to utilise the possibilities of digital indoor navigation.

Following the successful trial and launch with TPE, the service is now available at selected Network Rail and First Group stations. More stations are being scanned every month. The service is also being used in US networks such as Bart and SoundTransit.

More than passenger counting



The AI-supported passenger counting system distinguishes individual features

Photo: INFODEV

The new automatic passenger counting systems for public transport from Canada's INFODEV EDI INC. are based on artificial intelligence (AI) technology.

Following years of research, pilot projects with INFODEV's new AI-based Automatic Passenger Counting System (APC) have been deployed in North America over the past two years. These projects achieved an accuracy of over 99.7 percent in high traffic density environments.

INFODEV investigated how AI technology could be used to enhance the capabilities of its APC systems. In order to count more accurately, the counting should be supplemented with additional information about the passengers.

The system was developed to recognise objects related to micro-mobility and accessibility, such as bicycles, wheelchairs, scooters and strollers. It can also differentiate between children and adults, regardless of their height.

In discussions with customers as well as transport operator stakeholders, INFODEV realised that their solution could be used for more than just providing information on passenger numbers. The system can also serve as a safety mechanism, as it is able to recognise personal protective equipment such as safety jackets and helmets and trigger an alarm if a person or an object enters an area without authorisation.

With the aim of improving the system's capabilities and offering new functions to users, the system can now be trained to recognise new objects, for example employees' uniforms, or whether a passenger has held his his ticket or card up to the reader. INFODEV is also working on the development of special modules which are tailored to the specific needs of different departments in transport companies. Ongoing pilot projects include the creation of daily origin-destination reports which provide an anonymised overview of passengers' travel experiences. These reports aim to understand their needs and improve their overall travelling experience.

Privacy by design

INFODEV follows the "privacy by design" approach and offers solutions compliant with the General Data Protection Regulation, where images of passengers can be deleted immediately if required. The output data generated is anonymised so as not to be more intrusive than traditional APCs. Advanced cyber security measures protect against hacker attacks.

"By working closely with customers on various pilot projects, INFODEV sees the increasingly valuable benefits that the AI revolution will bring to the transport industry," says Charles-Gabriel Deslauriers, Software and Research & Development Project Manager at INFODEV.

If you feel good, you will come back again

An exclusively dedicated hall for catering facilities and services at InnoTrans

Photo: Messe Berlin

In 2024, InnoTrans will once again become the international venue for exhibitors and experts focusing on passenger comfort. Exhibitors in the Travel Catering & Comfort Services (TCCS) section will present how to make rail travel a passenger experience.

Comfort, service and an appealing design are essential for a perfect travel experience. At InnoTrans, 15,000 square metres of hall space have been exclusively dedicated to exhibiting companies in the Interiors segment. This is where trade visitors will experience trends and innovations from the fields of vehicle equipment, interiors and design.

The independent Travel Catering & Comfort Services theme area focuses on products and services related to catering facilities and services in rail travel. In Hall 1.1, visitors can examine and try out the range of high-quality food and drink, hygiene products and sleeping cabins. The exhibitors include engineerethics, Ferents & Co, Cairate Sviluppi Industriali, Hobart, Kugel Edelstahlverarbeitung, RexRoyal, Winkler Design and many more. Trade visitors can easily recognise the booths of the exhibiting companies thanks to the special markings on the hall plans and at the booths themselves. The TCCS theme route will lead them directly around these exhibition stands.

True espresso from the vending machine

VIVS Group vending machines

Photo: IVS Group

Since 2015, the IVS Group has been providing the on-board vending service on Italian high-speed trains operated by the private Italian railway operator NTV. Since 2021, the company has also been offering its service on 100 Trenitalia IC trains, which had previously been travelling without this service, as well as on 18 European Eurostar (formerly Thalys) trains.

The IVS Group manages the sale of food and beverages on more than 51 Italo trains, with two vending machines per train. In addition to real espresso, the vending machines offer other hot and cold drinks and snacks.

A service team of around 60 staff, three maintenance locations, eight railway stations – where loading can take place within a time frame of 45 minutes – and telemetry devices which communicate in real time between the vending machines and the company's control room ensure rapid intervention and fast refilling on Italo high-speed trains operated by the private company NTV.

From the start of the project, the biggest challenge was to ensure the continuous functionality of the vending machines, as the mains voltage changes during the journey. Thanks to a partnership between the vending machine manufacturer and NTV Italo, a customised solution was developed which enables the cooling unit in the snack and cold drinks vending machines to switch from 220 to 24 volts when required.

Comprehensive service

The IVS Group provides services for the installation, maintenance and refilling of vending machines on the basis of multi-year procurement contracts. The vending machines are fully certified in accordance with the applicable train regulations. The services offered by the IVS Group include the purchase of foodstuffs and ensuring compliance with the applicable conformity controls. A high level of flexibility in product configuration is based on experience with passenger preferences. The contracts also include cleaning, disinfection and preventive and corrective technical support.

In 2022, the company sold 827 million vending machines and achieved a turnover of 542 million euros. It describes itself as one of the leading players in the highly fragmented European market and has more than a hundred branches, mainly in Italy, but also in Spain, France, Switzerland, Poland, Germany and Portugal. The IVS Group specialises in the travel industry with the #yourbestbreak brand and is represented in airports, train stations, underground trains, ferries and buses.

Champion for comfortable seating

Seats made from fire-retardant foams

Photo: SHEELA FOAM LIMITED

The Indian manufacturer of polyurethane (PU) foams SHEELA FOAM LIMITED produces foam cushions for public seating under the brand name SAFEMAX, as well as foams for thermal and acoustic insulation.

The requirements for public seating are diverse – in addition to comfort, they should also offer durability and hygiene, especially in heavily frequented areas such as trains, buses and buildings.

SHEELA FOAM, a manufacturer of PU foams, has developed the SAFEMAX SFA cushion portfolio for this market. It includes headrests, backrests, armrests, seat cushions and mattresses for sofa beds and seats. Customers can specify the foam density, thickness and size according to their specific requirements and design preferences. The cushions are made of special fire-retardant materials in accordance with the fire protection standard EN45545-2 (HL 1-3). Thanks to the antimicrobial properties of the foam, public seats remain safe and clean places for everyone. SHEELA FOAM offers a ten-year guarantee on the portfolio.

The company says that with the SAFEMAX brand, SHEELA FOAM is redefining the comfort and safety of public seating. The products are said to be highly performant and manufactured in an environmentally friendly way.

The SAFEMAX family also includes a lightweight, heat-resistant and fire-retardant thermal and acoustic insulation material which is suitable for walls or as panelling for interior components, for example in rail vehicles and motor cars.

According to SHEELA FOAM, the company has a market share of more than 35 per cent for PUR flexible foams in India and exports to more than 25 countries worldwide.

Joyce Foam Product is a subsidiary with five plants in Australia, while the subsidiary Interplasp is represented in Spain with a plant.

INTERVIEW WITH ...

MARIO PÉLOQUIN

President and CEO VIA Rail Canada

Rising freight transport is pushing passenger transport to the sidelines

Mario Péloquin, an expert in the industry, has been managing the Canadian state railway company since June 2023. He has taken up the challenge of improving the customer experience at VIA Rail Canada, expanding services to regional and remote communities and increasing operational efficiency.

Mario Péloquin

Photo: VIA Rail Canada Inc.

InnoTrans Report: ***Mr. Péloquin, the car is the transport mode of choice when it comes to travelling in Canada. What role can, what role should the railway play in the overall mobility concept in Canada in the future?***

Mario Péloquin: People are recognizing the vast potential of travelling by train. It's sustainable, it connects communities, and it benefits both our economy and our planet.

VIA Rail was created as a Crown corporation in the 1970s. Today, it is an innovative and efficient expert in passenger transportation. For more than 45 years, we have connected Canada from coast to coast to coast. Yes, 3 coasts because we even run in extreme weather conditions to Canada's Northern Coast in Hudson Bay. We serve more than 400 communities, with about 5 million passenger trips this year. We are an economic driver in all those communities, with more than 34-hundred employees. Since VIA resumed almost full service after the pandemic disruptions, our customers have been coming back in force. By next year, as we enter the new year, we are on track to surpass the record ridership we experienced in 2019.

What infrastructure investments are being made for this?

Mario Péloquin: The EU has budgeted more than 87 billion euros for rail improvements and expansion. In the United States, the infrastructure bill allocates 66 billion US dollars for railways. And – there is a distinctively Canadian story being written.

In November of this year, VIA Rail launched its new reservation system allowing for a simplified, more convenient and more accessible experience for passengers. Designed with our customers in mind, this new reservation system is a crucial element of VIA Rail's modernization. Designed to evolve over time, it lays the foundation for tomorrow's improved customer experience.

Since 2022, we have also introduced state-of-the-art trains for our operations in Central Canada. Our new fleet is transforming passenger rail service in the Québec City-Windsor corridor, which connects Quebec and Ontario, encouraging many more people to choose rail - the best way to travel. We are particularly proud that they are the most accessible trains in the world.

The modern, efficient engines produce far fewer emissions. The seats are more comfortable and the WiFi is greatly improved. VIA Rail believes that all Canadians deserve the same. Our ambition is to connect more communities and move more people in a more sustainable and more accessible way.

For VIA Rail, this must start with the renewal of Canada's long-distance and regional trains.

Trains operated by the national railway company travel to almost all provinces in Canada, but mostly not on your own tracks. What additional challenges does this pose for VIA Rail?

Mario Péloquin: With the increase in interest in passenger rail travel, we do face one main challenge as we work to modernize our services. VIA Rail owns only 3 percent of the track we use, and that means our trains often have to wait behind freight and commuter trains, which unfortunately makes them chronically late.

An example: on the Montreal-Ottawa line, where VIA Rail has complete control of the tracks, our trains are on time more than 90 percent of the time, while on the rest of the network, where we run trains on other host railroads, we struggle to achieve 60 percent punctuality. This is very frustrating for passengers and for VIA Rail.

The dramatic increase in freight transport is great for the country's economy, but it is quite literally pushing passenger rail to the sidelines as the increase in traffic is easier to handle than the mix of trains of different speeds.

How can the increasing demands on modern rail travel, e.g. keyword Mobility 4.0, be implemented under these conditions?

Mario Péloquin: That is a concept in the transport sector that I believe is of vital importance. Integrated mobility means that travellers must be able to switch easily from one mode of transport to another. Whether by train, plane, car, bus or boat, connections must be seamless.

As part of our ongoing efforts to improve our services to Canadians, we'll be telling you more and more about integrated mobility during my tenure as CEO. Coordinating our efforts simply makes sense – because we all want the same thing – for more people to get out of their cars and chose collective transport. It's our job to make it easy for them to do that.

Read the full interview on the InnoTrans blog.

The Canadian from Toronto to Vancouver.

Photo: VIA Rail Canada Inc.

Automatic rail warning system for track work

The automatic light and sound warning system warns of an approaching train

Photo: Tanja Geiping-Pap – Zöllner Signal

The automatic warning system which Systra S.A. and Zöllner Signal GmbH have jointly developed is a response to the increasing safety requirements for work on railway lines.

Every day, 14,200 trains run on the French railway network. Just for the warnings that ensure the safety of the railway construction sites, 3,000 persons are in charge. Existing warning systems require considerable human resources, sometimes even more than the work itself. Moreover, they are difficult to mobilise on a permanent basis. As these works must be carried out at night, they are also costly for the operator.

Efficient to operate and easy to use

The automatic light and sound warning system which Systra and Zöllner Signal have jointly developed provides a simpler solution than existing systems. No changes to existing stations and signalling systems are required, nor is any cabling or on-site installation of detection equipment needed. It can be used on any line in France and worldwide which is equipped with the European Rail Traffic Management System ERTMS Level 2. Depending on the type of work to be carried out and the requirements of the maintenance centres, several warning modes are possible: track in use, continuous track. This system requires only one operator.

Advantages for railway infrastructure operators

The system also offers considerable advantages to railway infrastructure managers: It improves general safety and working conditions for employees, reduces the cost of future regeneration measures, facilitates maintenance work in the surrounding area (vegetation) and enables inspection operations and maintenance work to be carried out without interrupting railway traffic. In this way, costs are reduced.

To demonstrate that this concept is practicable, Systra conducted a feasibility study together with Maintenance SEA (MESEA) on the existing Southern Europe-Atlantic high-speed line between Tours and Bordeaux. The ARGOS project launched in France will enable the system to be used on both high-speed and conventional lines thanks to the new generation of signalling systems.

Making route scenarios easier to design

The Kaplan tool provides transparency

Photo: Egis

With the Kaplan tool from Egis in Lyon, France, it only takes a few clicks and several project participants can interactively run through different scenarios for new public transport projects.

Upstream study phases are of paramount importance for the success of public transport projects. They make it possible to define the needs, the mode of transport, the most suitable route and the positioning of the stops with the aim of offering the population the best possible service. Searching for and finding the best solution requires many iterations and numerous route scenarios are analysed from different points of view: socio-economic, operational and urban integration. For this reason, Egis has developed Kaplan, a tool for upstream studies which facilitates the creation and comparison of route scenarios for metro, tram and Bus Rapid Transit (BRT) projects.

The tool systematises and consolidates all analyses to allow interactive work on a spatial medium where a route element such as a station can be added or deleted with a few clicks. Kaplan immediately provides information on the consequences of a change in the scenario for the overall population, journey time, speed of travel and project costs. By systematising the analyses and calculations, Kaplan provides a high level of flexibility in such upstream study phases. It allows route scenarios to be tested and modified as the project evolves.

Co-design tool for all parties involved

Egis uses the Kaplan tool to conduct co-construction sessions as well as to bringing together multiple project stakeholders for a round of ideas and their discussion. The tool provides objective data to support all project stakeholders in their decision-making. Kaplan enables mobility authorities to better understand their territory and its management thanks to the instant analysis and interactivity of the tool.

It has already been used in France and abroad for the planning of numerous projects, including the T6 tram in Lyon, the express tram for West Lyon, the metro in Belgrade and the transport masterplan for Lille.

For Egis, the aim is to further develop Kaplan by integrating new analyses, particularly with regard to sustainable development aspects. A module for calculating the percentage of vegetation on the platform is already available and a module for the carbon assessment of scenarios is currently under development.

NEWS

Powerful trains for catenary renewal

TSO high-capacity train in the 25-kilovolt network

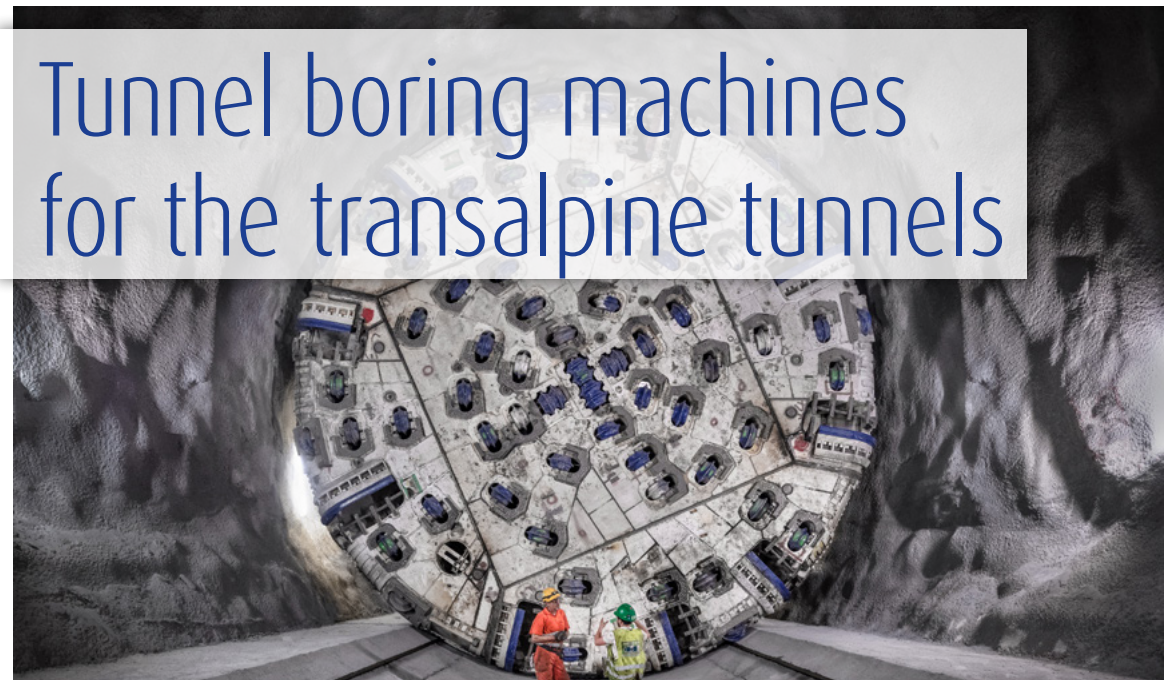
Photo: Marc Chesneau

In 2017, TSO, the railway subsidiary of the NGE Group, and its partner Colas Rail were awarded an extensive seven-year contract: the renewal of a large part of the ageing catenaries in the French railway network.
To overcome this technical and planning challenge, the two companies worked together with their customer SNCF Réseau and developed a pioneering solution which breaks with the traditional ways of organising rail and road works. This resulted in the planning and construction of two high-performance trains for catenary renewal, a world first: one for the 25-kilovolt network (developed in 2019) and one for the 1,500-volt network (developed in 2021).
The trains have different workstations, each dedicated to a specific task, to renew the infrastructure and to improve production rates. With the 25-kilovolt train, an average of 22 support poles can be replaced in one shift, with an average track access time of five and a half hours. This is three to four times faster than conventional methods.
Another important feature of these trains is the ability to resume normal operations immediately after the shift is completed. This avoids traffic disruptions and line closures to carry out the work. By combining mobility and efficiency, the project has made it possible to accelerate progress in the areas of safety and quality on the construction site. So far, 900 kilometres of overhead line have been renewed and improved.

TSO train renewing overhead lines in the 1,500 volt network

Photo: Marc Chesneau

Tunnel boring machines for the transalpine tunnels



Start of tunnelling at the Brenner Base Tunnel

Photo: Herrenknecht

Both the Brenner and the Mont Cenis Base Tunnels which are currently under construction will provide two major transalpine railway routes. The two Swiss base tunnels, the Gotthard (2016) and the Lötschberg (2007), are already in operation. With the supply of tunnel boring machines and tunnelling technology, Herrenknecht AG was or is involved in all four tunnel projects.

The Brenner Base Tunnel (BBT) – with a total length of 64 kilometres – will be the longest underground rail link in the world. Herrenknecht is supplying eight tunnelling boring machines for the various construction sections of the two tunnel tubes as well as for the continuous exploratory tunnel, a special feature of the Brenner Base Tunnel. From the south, mechanised tunnelling is well advanced; in March 2021, one of the three machines set a record with 860 metres of tunnelling in one month. From the north, the tunnelling work for both main tubes has begun and the northern exploratory tunnel is already complete. Client BBT expects the entire project to be completed in 2032.

One highlight of the Brenner Base Tunnel super-project is a huge conveyor belt system controlled from a central control centre, which was developed by Herrenknecht subsidiary H+E and installed at the Wolf access tunnel. The central conveyor belt system is designed for up to 5,000 tonnes of rock per hour and replaces 190 lorries every hour for the removal of the excavated material.

Tunnelling through challenging geology

The twin-tube Mont-Cenis base tunnel, the centrepiece of the new rail link between Lyon and Turin, will be 57.5 kilometres long. The tunnelling consortia commissioned by the client, the French-Italian project company Tunnel Euralpin Lyon Turin (TELT), have so far ordered five tunnelling machines. For the Saint Martin – Villarodin/Modane section, Herrenknecht is supplying three single-shield TBMs (Ø 10,340 millimetres) each for 8,300 metres of excavation through hard rock. The first two machines were accepted at the plant in July and October 2023. Between Villarodin/Modane – Val Clara, two Gripper TBMs (Ø 10,430 millimetres) will each drill 18,000 metres.

Herrenknecht tunnelling machines were used exclusively for the Gotthard Base Tunnel, which went into operation in June 2016. The four Gripper TBMs started tunnelling in 2003. In total, they shovelled around 10.5 million cubic metres of rock through their cutterheads and drilled more than 85 kilometres of the main tubes. In the process, the tunnelling machines overcame the most challenging geological conditions with various fault zones.

Conveyor belt system at the Brenner Base Tunnel (Padastertal landfill)

Photo: Herrenknecht

Nature-inspired

Mamba shotcrete pump in use in a tunnel

Photo: CIFA S.p.A.

Excavation of the French section of the Euralpin Lyon Turin Tunnel (TELT) continues. It started at the beginning of December in Saint-Julien-Montdenis and La Praz with the deployment of the new Mamba underground shotcrete pump.

The technical caverns for the double base tunnel TELT for the assembly of the tunnel boring machines (TBM) are excavated by conventional means. They are up to 22 metres high and reach a width of up to 23 metres. Shotcrete pumps are used to stabilise them. Starting from the French section, the TBMs will drive the excavation of the base tunnel and the service tunnels (access, ventilation and safety tunnels) to Italy. Several Elk units and the first Mamba unit, the new underground shotcrete pump from CIFA, are in operation. The Mamba shotcrete is designed to simplify the contractor's work and make the tunnel a more sustainable environment.

Designed for confined spaces and large construction sites

Like the other CIFA shotcrete machines, the Mamba is powered by both a diesel and an electric drive. This ensures continuity of operation in all conditions, particularly focussing on reducing CO2 emissions and improving both the working environment and productivity. The two-section telescopic extension boom has a maximum vertical reach of 18 metres and 14 metres horizontally. It can be fully folded out within a space of just four metres. This model is suitable for both very confined spaces and large construction sites and represents a major advance for the industry. The boom has been designed to be controlled intuitively and precisely with a dual joystick radio remote control. The turret has a slewing ring with a rotation angle of ± 180 degrees and can slide along an integrated rail to move the boom by around 3,000 millimetres, making it much easier to position the machine on the construction site.

Teaming up for sustainable construction sites

For CIFA, nature is the source of inspiration for the underground model range. "We named the models after animals with similar physical or behavioural characteristics," says Davide Cipolla, CEO of CIFA. CIFA's aim is to make the machines as ecological as possible, respecting the environment and people with the aim of transforming the underground construction site into a sustainable ecosystem. When working in an enclosed space with poor ventilation, tunnelling machine manufacturers need to work together to create a sustainable construction site in an already highly challenging environment. "We have to create smart machines that benefit from data to increase energy efficiency, rely on electric power to reduce emissions and use technologies that can simplify the work of operators," Cipolla continues.

Properties emulating nature

Photo: CIFA S.p.A.

Solutions for rail transport

The tram in Tenerife runs on rails in the removable insulation chamber

Photo: METROTENERIFE

METROTENERIFE, the tram operator on the Spanish island of Tenerife, advises on rail transport projects. The company developed the Vía-Móvil e-ticketing application, the removable insulation chamber which was a winner at the Global Light Rail Awards as well as the SIMOVE product.

Vía-Móvil, METROTENERIFE's free e-ticketing application, standardises the process of purchasing, validating and checking tickets using users' smartphones (Android or IOS). In this way, travellers can buy their tickets quickly and easily anywhere and at any time. Vía-Móvil validates tickets by reading QR codes which are installed on board the tram, allowing operators to roll out the system quickly and reduce investment and maintenance costs.

Safety enhanced

The on-board speed monitoring system with the Spanish acronym SIMOVE provides extra safety for rail transport. It continuously monitors the speed of trams or trains in real time to prevent accidents caused by speeding. It prompts drivers to maintain the appropriate speed or slows the vehicle down. SIMOVE can be highly integrated and adapted to any rail vehicle. It operates by continuously collecting data via GPS and an odometer to determine the vehicle's position.

SIMOVE was honoured with a prize at the Global Light Rail Awards (2017) and is installed in the trams run by METROTENERIFE on Tenerife and in the Metro Ligero Oeste in Madrid.

Simplified rail replacement

Another METROTENERIFE development is a removable insulating chamber for rails which can be easily installed and removed without having to be dismantled. Made from recycled tyre rubber, the removable insulation chamber is sustainable and facilitates electrical and acoustic insulation on the platform. The patented insulation chamber system was honoured at the Global Light Rail Awards (2021) and the ERCI Innovation Awards (2022) of the European Rail Cluster Initiative. The solution is marketed by the multinational company ArcelorMittal.

Digital signage in the railway industry

Passenger information system at Madrid's Atocha station

Photo: ICON Multimedia

DENEVA, the digital signage software from ICON Multimedia, makes it possible to easily integrate existing information systems in railway stations and optimise energy consumption.

Thanks to artificial intelligence and data analysis, passenger information systems and digital signage have evolved considerably. They enable flexible and reliable communications and provide real-time information on timetables, lines, delays and changes.

Multimodality, interoperability and sustainability are the three most important pillars for the networked future. The Spanish digital signage software company ICON Multimedia focuses on improving multimodal communication in the areas of transport and mobility, with the emphasis on interoperability. Its digital solution DENEVA can be easily integrated into existing railway station systems, facilitating the transition to digital transformation. It furthermore optimises energy consumption and reduces the environmental impact.

Advertising has also become increasingly important in the railway sector. Railway and metro stations are ideal places to reach a large and diverse audience. The flexibility and the ability to segment the audience in real time make digital advertising attractive for advertisers and agencies. DENEVA is also increasingly being used as a potential advertising channel for brands.

Welding training in Industry 4.0

The Soldamatic augmented reality concept

Photo: Seabery Augmented Technology

Seabery Augmented Technology offers simulation-based training solutions with augmented reality technology for skills-based training in educational institutions and industry.

Soldamatic from Seabery Augmented Technology is a turnkey, scalable, effective and realistic welding training solution with augmented reality. According to the company, it is used in more than 90 countries and the results are remarkable. For example, 34 per cent more certified welders are reportedly trained in less than half the real learning time than using traditional methods, with laboratory costs cut by over 68 per cent and accidents reduced by over 84 per cent. Alstom, Mercedes-Benz, Volkswagen, BMW and John Deere, for example, have already introduced Soldamatic into their processes.

Soldamatic Industrial Services from Seabery Augmented Technology is the individual solution for the digitalisation of welding training in the industrial sector. It allows real welding joints to be simulated in augmented reality. This enables industrial companies to train their welders on their real welding joints, reproduce all the details of their welding procedure specification and reduce risks and retraining costs. With the current development and growth of Industry 4.0, it is inevitable to incorporate the increasingly widespread practice of robotic welding, the company Seabery Augmented Technology explains. Seabery has developed Soldamatic Robotics for robotic welding. The technology can be used to train operating personnel and evaluate the programming of a complex weld prior to actual production.

Soldamatic technology enables integration with any robot on the market and includes a wide catalogue of specific connections for robotic welding, as well as specific training content.

Career boost for the next generation of professionals

Guided tours are bringing potential applicants into contact with exhibiting companies Photo: Messe Berlin GmbH

Anyone looking to gain a foothold in the mobility industry can make valuable contacts at the InnoTrans Campus. Job Wall, RecruitingLAB, Talent Stage and Career Tours will bring tomorrow's professionals together with potential employers.

In InnoTrans Hall 21e, experts looking for a job, students and young professionals will be able to meet HR officers from businesses. The job wall will provide an initial overview of vacancies, as this is where exhibitors can advertise their job offers. The RecruitingLAB right next door will provide a personal link to the HR departments. At the booths of the participating companies, visitors can find out about career opportunities.

Personal interactions

The programme on the Talent Stage is also exciting. Here, companies from the mobility sector will present entry-level and further development opportunities. The stage is also the venue for the Eurailpress Career Boost, which will take place for the third time in 2024. In this format, applicants will introduce themselves to potential employers in 90-second pitches. "The Eurailpress Career Boost enables bundled networking and is a rewarding alternative to often lengthy application rounds," says Christine Bode from Siemens Mobility, who took part in the innovative format as a company representative. Jakub Krzystof Szajek, a business administration student from Vienna who also took part, secured a position at Plasser & Theurer. "The pitch was a good opportunity to showcase myself, but also a challenge. I actually received a lot of offers after my pitch. It was worth travelling the 1000 kilometres from Vienna," he concludes.

Tours for job seekers

Another opportunity for job seekers to get a comprehensive picture of their future employer will be offered by the Career Tours. The tours will take place several times a day and are free of charge. The Career Tours will visit exhibitors who have marked their stand with a Career Point and who will directly provide information about possible career opportunities in their company.

Your direct way to us: the Online Ticket Shop

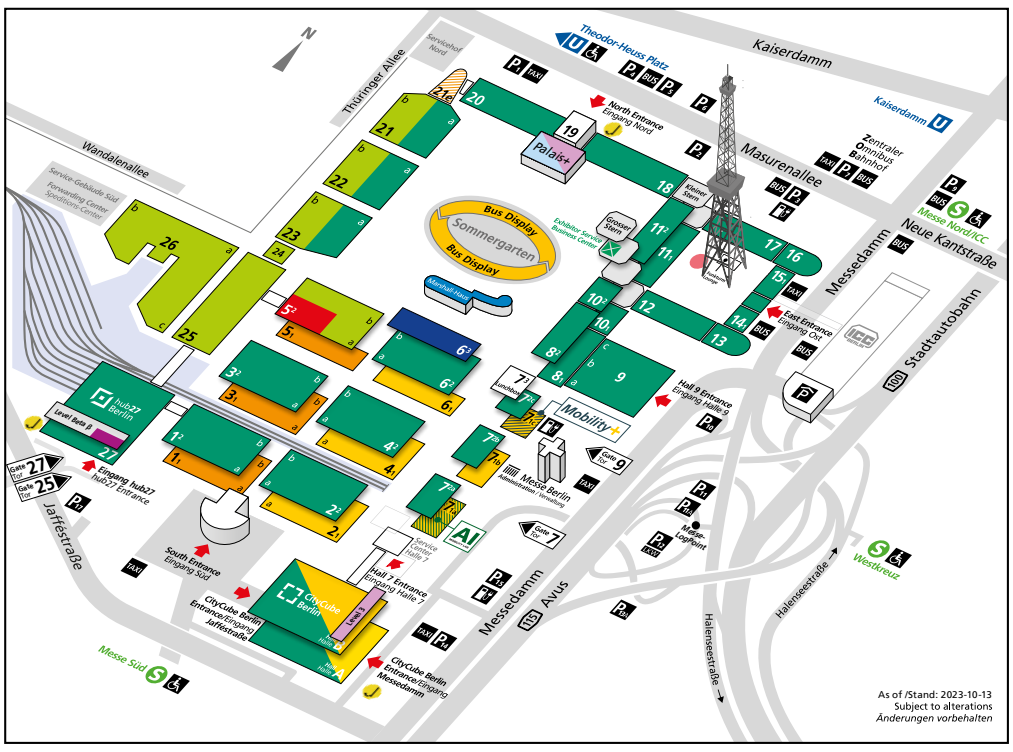
Day/permanent and student tickets for **InnoTrans 2024** are available from march in the ticket shop. The tickets are available on mobile devices and allow contactless access. They will also entitle the holder to use Berlin's public transport system (ABC) free of charge for the period of validity.

Trade visitor pass Online (9:00 am - 6:00 pm)

Day ticket	60 euros
Day ticket Friday (9:00 – 16:00 hours)	50 euros
Permanent ticket	90 euros
Day ticket for students	14 euros
Permanent ticket for students	30 euros

TICKETS ONLINE ONLY!

Ticket sales and voucher redemption will take place exclusively online. At the event, there will be no box office.



Exhibition Grounds InnoTrans 2024

- Railway Technology
- Interiors incl. Travel Catering & Comfort Services
- Railway Infrastructure
- Tunnel Construction
- Public Transport incl. Mobility+
- AI Mobility Lab
- Outdoor Display · Gleis- und Freigelände
- Bus Display
- Opening Ceremony · Eröffnungsveranstaltung
- InnoTrans Convention
- Speakers' Corner
- InnoTrans Campus
- Business Lounge (Marshall-Haus)
- Press Center · Pressezentrum
- FoodCourt · Restaurant
- Jelbi hub shared mobility
  Pickup & Drop-off for rental two-wheeled vehicles
  Mobilitätsflächen für Miet-Zweiräder

Your contact persons for InnoTrans

Messe Berlin

ORGANISER MESSE BERLIN GMBH
Matthias Steckmann,
Senior Vice President
Business Unit Mobility & Services
Messedamm 22, 14055 Berlin, DEUTSCHLAND
T +49 30 3038 2376
innotrans@messe-berlin.de
www.innotrans.de

DIRECTOR InnoTrans
Kerstin Schulz
T +49 30 3038 2032

VICE EXHIBITION DIRECTOR
Lena Ritter
T +49 30 3038 2389

PRODUCT MANAGERS
Tim Hamker
T +49 30 3038 2376

Vera Hasche
T +49 30 3038 2331

Josephine Ruhp
T +49 30 3038 2358

Erik Schaefer
T +49 30 3038 2034

PROJECT ORGANISATION
Anne Gütte
T +49 30 3038 2065

Lan Hoang
T +49 30 3038 2237

Julia Rachele
T +49 30 3038 2276

Marlena Schubert
T +49 30 3038 2390

Lisa Simon
T +49 30 3038 2124

Wilhelm Trupp
T +49 30 3038 2603

PRESS
Ingrid Mardo
Press Office
T +49 30 3038 2282

ADVERTISING
Markus Woschnik
T +49 30 3038 1859

Media partners for InnoTrans

Railway Gazette GROUP
Eurailpress
tunnel
MASS TRANSIT