

# InnoTrans 2022: Encontrarse de nuevo

La Feria Internacional de Tecnologías del Transporte, InnoTrans, vuelve a celebrarse después de cuatro años en el recinto ferial de Berlín, entre el 20 y el 23 de septiembre, tras la ruptura de su periodicidad bienal.

En 2018, antes de que la pandemia obligara a posponer primero y suspender después la edición de 2020, la mayor feria del transporte ferroviario congregó a 3.062 expositores de 61 países y a 153.421 visitantes profesionales de 149 países.

En esta ocasión, en la edición del reencuentro, los cinco segmentos de InnoTrans -Tecnología Ferroviaria, Infraestructura Ferroviaria, Transporte Público, In-



## INTELLIGENT TRANSPORTATION SYSTEMS Innovative solutions for transportation

At GMV we believe that behind every need, behind every problem, there is a challenge and an opportunity to innovate. GMV offers the customer the best solution, fully adapted to their own requirements and including all the necessary support.

GMV is a leading company in the design, development and deployment of Intelligent Transportation Systems (ITS) for the railway sector, offering integrated turnkey solutions and its own products for Fleet Management (SAE-R®), Ticketing and on-board systems (PA & Intercomm, CCTV, PIS).

With more than 400 clients in 35 countries on 4 continents, from Kuala Lumpur, Los Angeles, Tel Aviv, Jerusalem and Sydney to Madrid or Barcelona, our clients endorse GMV as a world leader in the design and implementation of Intelligent Transportation Systems.

Don't miss the opportunity to visit us at InnoTrans 2022, booth #265 hall 2.1, from 20-23 September BERLIN

gmv.com  
marketing.transport@gmv.com

**gmv**<sup>®</sup>  
INNOVATING SOLUTIONS

teriores y Construcción de Túneles- vuelven a atraer a expositores y visitantes de todo el mundo

En esta décimotercera edición, InnoTrans 2022 presenta el futuro de la movilidad, las innovaciones que marcarán el rumbo del transporte ferroviario en los próximos años. La movilidad compartida, integrada, multimodal, flexible y en red, la digitalización, la sostenibilidad medioambiental, el ahorro energético, las infraestructuras de recarga, las nuevas tecnologías de tracción y climatización, la gestión y prevención de riesgos y el transporte público urbano a demanda son algunos de los ejes sobre los que se desarrollarán los encuentros paralelos a la exposición comercial.

En este marco, un importante número de empresas españolas, cuya presencia global sigue creciendo en calidad y cantidad, presentará su oferta de productos y servicios, sus novedades y sus proyectos. Una relevante representación de ellas avanza las claves de su participación en estas páginas especiales de InnoTrans 2022. ■

# InnoTrans 2022: meeting up again

*The International Trade Fair for Transport Technology (InnoTrans) is being held again, four years later, at the Berlin Exhibition Grounds from September 20 to 23, after the break in its two-year periodicity.*

*In 2018, before the global pandemic obliged the 2020 event to first be postponed and then finally suspended, the largest rail transport fair attracted 3,062 exhibitors from 61 countries, and 153,421 visiting professionals from 149 countries.*

*On this occasion, in this reunion event, InnoTrans' five segments, Railway Technology, Railway Infrastructure, Public Transport, Interiors, and Tunnel Construction, are again attracting exhibitors and visitors from all over the world.*

*In this 13th event, InnoTrans*

*2022 presents the future of mobility, the innovations that will point the way forward for rail transport in the following years. Shared, integrated, multimodal, flexible, and networked mobility, digitalisation, environmental sustainability, energy saving, charging infrastructures, new traction and air-conditioning technologies, risk management and prevention, on-demand urban public transportation are some of the main themes that will be featured in parallel meetings.*

*In this context, an important number of Spanish companies, whose global presence is continuing to grow in quality and quantity, will present their range of products and services, their latest news and projects. An important representation of them shares the key points of their participation in the pages of this InnoTrans 2022 special. ■*







# ON THE FAST TRACK TO THE FUTURE OF MOBILITY

Railways help promote sustainability, which is why, for the past 80 years, Stadler has been building trains to make rail more compelling, more competitive and more environmentally-friendly. So that even more people choose to travel by train, more goods are transported by rail, and ultimately, that modal shift succeeds.

At InnoTrans 2022, we will present technologies that are already significantly contributing to this, such as digitally networking trains and routes and sustainable electric, battery and hydrogen-powered. In short, vehicles that offer maximum comfort. We are on the fast track to the future of mobility. Visit us and find out more at InnoTrans 2022.

[www.stadlerrail.com](http://www.stadlerrail.com)

 **InnoTrans 2022**  
20-23 SEPTEMBER  
MESSE BERLIN

**STADLER**



## ALSTOM

Esta edición de InnoTrans es, si cabe, especialmente importante para Alstom ya que se trata de la primera edición tras la adquisición de Bombardier Transportation. En sus más de 1.000 m<sup>2</sup>, el stand de Alstom presenta toda su cartera de soluciones y presencia global. Además, estará presente en la playa de vías exterior, con diferentes soluciones de material rodante y una primicia mundial. Todo ello, con un único objetivo: compartir con clientes, socios y colaboradores nuestro liderazgo mundial en innovación por una movilidad cada vez más sostenible y digital.

**ALSTOM**  
• mobility by nature •

Alstom Group  
HALL 3-2 - stand 460

*This edition of InnoTrans is particularly important for Alstom, as it is the first edition after the acquisition of Bombardier Transportation. On its more than 1,000 m<sup>2</sup>, the Alstom stand will present its entire portfolio of solutions and global presence. In addition, Alstom will be present on the outdoor track platform, with different rolling stock solutions and a world premiere. All this, with a single objective: to share with customers, partners and collaborators our leadership in innovation for a greener and smarter mobility, worldwide.*



## AMURRIO

Amurrio es un líder global en el diseño y fabricación de desvíos ferroviarios completos para trazados de Alta Velocidad, ferrocarril convencional, Urban Rail o Heavy Haul applications.

Uno de los puntos fuertes de Amurrio está en la fabricación de corazones monobloque en acero al manganeso, fundidos y soldados a antena por chisporroteo en instalaciones propias de la empresa.

Amurrio también fabrica corazones con otras tecnologías, como los de punta móvil para Alta Velocidad, mecanizados a partir de plancha de acero, o soluciones especiales para varios anchos de vía.

*Amurrio is a global leader in the design and manufacture of complete railway turnouts for High Speed, Conventional Rail, Urban Rail and Heavy Haul applications.*

*One of Amurrio's strengths lies in the manufacture of manganese steel monobloc crossings, cast and welded to rail in the company's own facilities.*

*Amurrio also manufactures crossings with other technologies, such as mobile point crossings for High Speed, machined from steel plate, or special solutions for various track gauges.*

## AZVI

Azvi es una empresa familiar española cuyos orígenes se remontan a mediados del siglo XIX.

Nuestra gran experiencia en todo el ámbito del ferrocarril nos permite diseñar para nuestros clientes soluciones a medida, desde proyectos de infraestructuras hasta transporte, servicios de mantenimiento y operación ferroviaria. Es nuestro principal objetivo.

Trabajamos para desarrollar ferrocarriles que conecten personas y territorios y mejoren la movilidad en las ciudades y la vida de sus ciudadanos, a través de un transporte más eficiente, inteligente, seguro, sostenible y respetuoso con el medio ambiente.

Hoy somos una empresa innovadora, internacionalizada y sostenible, con sólidos valores, experiencia de más de un siglo y orgullosa de su gran equipo humano.

*Azvi is a Spanish family business dating back to the mid of the 19th century.*

*Railway is our core business and we drive our efforts to offer the best bespoke solutions in the wide range of railway projects to our clients, from infrastructure activities to railway transport and operation. That is our main goal.*

*We work to develop railways to connect people and territories and to improve mobility in cities and the life of their citizens, through a more efficient, smart, safe, sustainable and environmentally friendly transport.*

*Today, we are an innovative, internationalized and sustainable Company with solid values, experience for over a century and proud of our great human team.*

## ADIF

### La innovación, el motor de Adif

Desde su nacimiento, la innovación y la investigación son para Adif aspectos de la máxima importancia. Su visión de la innovación está centrada en el usuario para atender las necesidades de la sociedad y ejercer un efecto tractor en el sector industrial que estimule la participación de empresas, startups, universidades y centros tecnológicos, orientándolos al desarrollo de soluciones tecnológicas para sus retos.

Adif actúa además como promotor de la I+D+i, estimulando desarrollos nuevos que puedan aportar valor al ferrocarril. En la búsqueda de nuevas formas de innovar más eficaces y eficientes, Adif ha pasado de la innovación colaborativa a la innovación abierta, basada en la detección de necesidades y el intraemprendimiento, la vigilancia tecnológica y la colaboración del ecosistema de innovación, junto al apoyo financiero de Adif y la cofinanciación de los programas de



impulso a la innovación nacionales y europeos. También ha adoptado nuevas formas de interactuar con los agentes del entorno innovador para que la comunicación con ellos sea fluida, bidireccional y productiva.

El esfuerzo innovador de Adif se manifiesta en estos datos: desde 2006 ha iniciado más de 150 proyectos de I+D+i, con 86 demostradores ensayados en entorno real, 31 pruebas en la infraestructura y un índice de transferencia del 40 por ciento.

### Innovation is Adif's engine

*Innovation and research have been aspects of the utmost importance to Adif from the outset of its activity. Its vision of innovation is focused on the user to meet the needs of society and be a driving force in the industrial sector that stimulates the participation of compa-*

*nies, startups, universities and technology centres, guiding them to develop technological solutions for its challenges. Adif also acts as a promoter of R+D+I, stimulating new developments that can add value to the railway. Always looking for new ways to innovate more effectively and efficiently, it has gone from collaborative innovation to open innovation, based on detecting needs and intrapreneurship, technological surveillance and the collaboration of the innovation ecosystem, together with the financial support of Adif and the co-financing of national and European innovation promotion programmes, systematically seeking continuous improvement. It has also adopted new ways of interacting with the agents of the innovative environment so that communication with them is fluid, two-way and productive.*

*Adif's innovative effort is manifested in these figures. Since 2006 it has undertaken more than 150 R+D+I projects, with 86 demonstrators tested in a real environment, 31 tests in the infrastructure and a transfer rate of 40 percent.*

## We are CERTIFER

### A global presence



For 25 years, CERTIFER provides certification, inspection, Audit and support in testing services in railway, guided transportation and beyond.

**21**  
locations

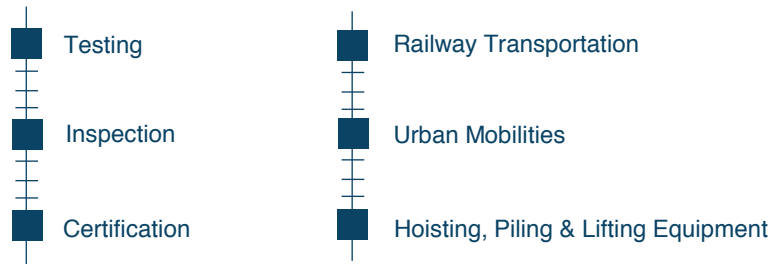
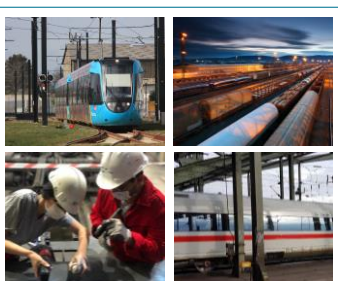
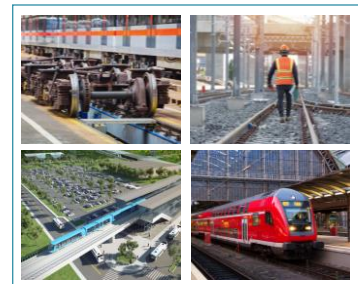
**50+**  
countries with projects undertaken

**25 years**  
of expertise in railway testing, inspection and certification

**650+**  
experts from all railway sectors

**220+**  
employees worldwide

**20**  
languages spoken



Visit us at InnoTrans 2022, at the hall Citycube A, stand 850

## CAF

CAF es uno de los líderes internacionales en el diseño e implantación de sistemas integrales de transporte. Referente en el sector de la movilidad sostenible, la compañía ofrece una amplia gama de productos y servicios que incluye el suministro de trenes, autobuses, componentes, sistemas de señalización, servicios y concesiones y sistemas integrales.

En lo que a material rodante se refiere, CAF diseña, fabrica y mantiene trenes de alta velocidad, unidades regionales y de cercanías, locomotoras, metros y tranvías.

A día de hoy, la compañía está presente en más de 50 países en todo el mundo y cuenta con una plantilla superior a las 13.000 personas.



*CAF is one of the international leaders in the design and supply of comprehensive transportation systems. A benchmark in sustainable mobility solutions, the company offers a wide range of products and services that includes the supply of trains, buses, components, signaling systems, services and concessions and comprehensive systems. In terms of rolling stock, CAF designs, supplies and maintains high-speed trains, regional and commuter units, locomotives, metros and tramways. Today, the company is present in more than 50 countries around the world and has a workforce of more than 13,000 people.*

Visit CAF at  
stand 130 in hall 4.2.



## CERTIFER

Desde hace 25 años, CERTIFER ofrece servicios de certificación, inspección, auditoría y ensayos, en transporte ferroviario, guiado y otros. Con nuestra red de 650 expertos, estamos comprometidos a hacer que el ferrocarril, el transporte urbano y las nuevas movilidads sean más seguras, fiables y conectadas en todo el mundo. Somos conscientes de las necesidades futuras del transporte ferroviario y participamos en varios proyectos de innovación relacionados con Ciberseguridad, Hyperloop, Supraways, Trenes de Hidrógeno, etc.

En CERTIFER trabajamos con un enfoque colaborativo y pragmático para ayudar a nuestros clientes a conseguir la certificación y puesta en servicio de sus productos con éxito.

*For 25 years, CERTIFER offers certification, inspection, audit and testing services in railway, guided transportation and beyond. With our network of 650 experts, we are committed to making railway, urban transport and new mobilitys safer, more reliable and more connected around the world. We are aware of the future needs of rail transport and we involved in several innovation projects related to Cybersecurity, Hyperloop, Supraways, Hydrogen trains, etc.*

*At CERTIFER we work with a collaborative and pragmatic approach in order to help our customers succeed in the certification and placing into service of their products.*

## COMSA

COMSA Corporación es un grupo global de desarrollo de infraestructuras con más de 130 años de experiencia en proyectos ferroviarios de construcción y mantenimiento de líneas de alta velocidad, tranvías, ferrocarriles metropolitanos y regionales, así como electrificación ferroviaria, control y sistemas. La compañía cuenta con presencia en cerca de 20 países y ha participado en el desarrollo de todas las líneas de alta velocidad en España. Entre sus proyectos ferroviarios más emblemáticos se encuentran la Línea 4 del Metro de São Paulo (Brasil), el tranvía de Odense (Dinamarca) y las estaciones de AVE de La Sagrera y Chamartín (España), ambas en ejecución.



*COMSA Corporación is a global group focused on infrastructure development with more than 130 years of experience in railway projects involving the construction and maintenance of high-speed lines, trams, metropolitan and regional railways, as well as railway electrification, control and systems. The company has a presence in almost 20 countries and has participated in the development of all the high-speed lines in Spain. Among its most emblematic railway projects are Line 4 of the São Paulo Metro (Brazil), the Odense tramway (Denmark) and the high-speed train stations at La Sagrera and Chamartín (Spain), both still under construction.*





Visítanos en  
**InnoTrans 2022**  
20-23 septiembre, Hall 1.2, stand 250



## **NUEVAS TECNOLOGÍAS DE MERAK. ORIENTADAS A NECESIDADES ACTUALES**

MERAK se ha convertido en sinónimo de salud y confort sostenibles dentro del mundo de la climatización ferroviaria.

La tecnología clean[air] mejora la calidad de aire en el interior del tren y reduce drásticamente la concentración de agentes patógenos y aerosoles en el aire.

Por otro lado, green[air] es el resultado de la combinación de diferentes tecnologías innovadoras que junto con el uso de refrigerantes sostenibles, proporcionan mejoras en la eficiencia energética y reducen las emisiones de CO<sub>2</sub>.

**[|www.merak-hvac.com|](http://www.merak-hvac.com)**



**MERAK**

## FCC

### FCC Construcción acercando a las personas

FCC Construcción ha ejecutado más de 2.600 kilómetros de ferrocarril en cualquiera de las modalidades de este medio de transporte, desde el ferrocarril de alta velocidad hasta el metro o los nuevos tranvías, incluyendo el mantenimiento (más de 12.000 kilómetros) y renovación de líneas existentes y la construcción de nuevas estaciones.

FCC Construcción ejecutó la plataforma, instalaciones y un túnel ferroviario que sirve de conexión entre las estaciones de Atocha y Chamartín, ambas en Madrid, y para tránsito exclusivo de trenes de Alta Velocidad.

FCC Construcción y su filial Convensa son referentes internacionales en infraestructuras ferroviarias.

### *FCC Construction bringing people closer*

*FCC Construcción has executed more than 2,600 kilometers of railway in any of the modalities of this means of transport, from the high-speed railway to the metro or the new trams, including the maintenance (more 12,000 Km) and renovation of existing lines and the construction of new stations.*

*FCC Construcción executed the platform, facilities and a railway tunnel that serves as a connection between the Atocha and Chamartín stations, both in Madrid, and for the exclusive transit of High-Speed trains.*

*FCC Construcción and its subsidiary Convensa are international benchmarks in railway infrastructure.*



## GMV

GMV ofrece sistemas y soluciones ITS para el mercado ferroviario.

Entre sus productos se encuentran: Equipamiento embarcado de localización y comunicaciones, Sistemas de Ayuda a la Explotación (SAE-R), Sistemas de Validación y Venta de billetes (ticketing), Sistemas de información al viajero (INFO-Pass), Sistemas de videovigilancia (DV-Rec), Sistemas PA & Intercom, Sistemas de refuerzo a la Seguridad, Sistemas de conducción eficiente, Software de Planificación Óptima de servicios (GMV-Planner). Concebidos para todos los modos ferroviarios (tranvía, metro, cercanías, larga distancia, AVE...).

Los sistemas de GMV están presentes a nivel internacional en operadores como RENFE, ONCF (Marruecos) o PNR (Filipinas) y en fabricantes como ALSTOM, Talgo o CAF en proyectos en España, Australia, Israel, Arabia Saudí, etc.

*GMV offers ITS systems and solutions for the rail market. The GMV's portfolio includes on board units for location and communications, Fleet Management Systems (SAE-R), Fare Collection Systems, Passenger information systems (INFO-Pass), CCTV systems (DV-Rec), PA & Intercom system, Systems for security reinforcement, Eco-driving systems, Software for planning and scheduling of services (GMV Planner). Conceived for all railway modes (tram, metro, commuter train, mainline, long distance, high speed trains...). The systems from GMV are present internationally in operators such as RENFE, ONCF (Morocco) or PNR (Philippines) and in manufacturers such as ALSTOM, Talgo or CAF in projects in Spain, Australia, Israel, Saudi Arabia, etc.*

## HISPACOLD

Hispacold es una empresa líder mundial en sistemas de climatización especializada en el confort de los pasajeros con más de 45 años de experiencia.

Hispacold diseña, fabrica y distribuye sistemas HVAC para vehículos ferroviarios -tranvías, metros, EMUs, DMUs, LRVs-, con soluciones tecnológicas probadas y fiables.

Hispacold está certificada en las normas internacionales de gestión de calidad, medio ambiente y seguridad ISO 9001, ISO 14001, ISO 45001, EN 15805-2 y la prestigiosa ISO/TS 22163 (IRIS).

Hispacold está comprometida con las políticas de reducción del calentamiento global. Desde 2006 Hispacold I+D trabaja en el desarrollo y ensayo de refrigerantes alternativos con menor GWP.

Hispacold diseña soluciones de climatización para todas las condiciones climáticas y cualquier tipo de necesidad de carga térmica.



*Hispacold is a world leader company for climate systems specialized in passengers' comfort with more than 45 years' experience.*

*Hispacold design, manufactures and distributes HVAC systems for all rail vehicles -trams, metros, EMUs, DMUs, LRVs-, with proven and reliable technology solutions.*

*Hispacold is certified in the international quality management, environment and safety standards ISO 9001, ISO 14001, ISO 45001, EN 15805-2 and the prestigious ISO/TS 22163 (IRIS).*

*Hispacold is committed with global warming reduction policies. Since 2006 hispacold R&D works in development and testing of alternative refrigerants with lower GWP.*

*Hispacold designs HVAC solutions for all climatic conditions and any type of thermal load necessities.*



## GOBIERNO VASCO (ETS Y EUSKOTREN)

Euskal Trenbide Sarea-Red Ferroviaria Vasca (ETS) es un agente de referencia en el desarrollo y gestión de las infraestructuras ferroviarias cuya misión es el desarrollo de un sistema ferroviario bajo criterios de calidad, seguridad, eficiencia económica y sostenibilidad que contribuya al desarrollo del País Vasco y de la sociedad en general. Eusko Trenbideak-Ferrocarriles Vascos (Euskotren) se ha consolidado a lo largo de sus 40 años de vida como la operadora de transportes de referencia en Euskadi. Con la oferta de un servicio público basado en la calidad, sostenibilidad, eficacia y seguridad, satisface las necesidades de desplazamiento de



millones de personas al año a través de sus líneas de ferrocarril, metro, tranvía, funicular y autobuses. Ambas son entidades pertenecientes al Departamento de Planificación Territorial, Vivienda y Transportes del Gobierno Vasco.

*Euskal Trenbide Sarea-Basque Railway Network (ETS) is a leading stakeholder in the development and management of railway infrastructures. Its mission is to develop a railway system in accordance with criteria of quality, safety, economic efficiency and sustainability to contribute to develop the Basque Country and society in general.*

*Eusko Trenbideak-Basque Railways (Euskotren) has consolidated its position as the leading transport operator in the Basque Country over the 40 years it has been operating. Its public service based on quality, sustainability, efficiency and safety meets the travel needs of millions of people a year on its railway, underground tramway, funicular railway and bus lines.*

*Both entities answer to the Basque Government's Ministry of Territorial Planning, Housing and Transport.*



## The experience of an operator at the disposal of your mobility projects



**Consultancy services in Operation and Maintenance.**  
Experience on 4 continents

More info



The **ticketing system** that works via a smartphone without need of physical infrastructure

**Advanced Driver Assistance System** designed to monitor operations and to avoid accidents due to over speeding

**SIMOVE FOR RAILWAYS**

## REMOVABLE INSULATING CHAMBER

Designed and patented by:  
**metrotenerife**



Technical Innovation of the Year 2021

**Chambered system** designed to improve the maintenance of the railway platform

Commercialised by:



rails.specialsections@arcelormittal.com

Technical data



## INECO

Referente en ingeniería y consultoría del transporte, Ineco lleva más de 50 años diseñando soluciones integrales, innovadoras y tecnológicas que han permitido avanzar hacia un nuevo modelo de movilidad más sostenible y seguro, así como a la transformación digital de las administraciones públicas. Soluciones que contribuyen de manera directa a mejorar la calidad de vida de millones de personas. Con un equipo multidisciplinar de 4.000 profesionales, la empresa está presente en todos los continentes, donde despliega su experiencia y capacidad para afrontar trabajos técnicamente complejos gracias a su conocimiento especializado y a la aplicación de la tecnología más avanzada y vanguardista.



*A leader in transport engineering and consultancy, Ineco has been designing comprehensive, innovative and technological solutions for more than 50 years with a clear goal: progress towards a new, more sustainable and safer mobility model, as well as assisting public administrations in their digital transformation processes. Solutions that directly contribute to improving the quality of life of millions of people. With a multidisciplinary team of 4,000 employees, the company is present on all continents where it deploys its experience and capacity to tackle technically complex projects thanks to its specialised knowledge and the application of the most advanced and cutting-edge technology.*



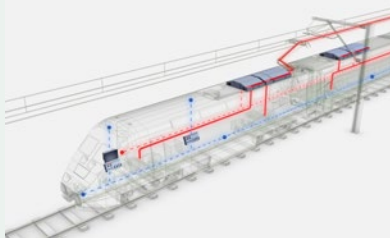
## INGETEAM

*INGETEAM designs and supplies complete Traction systems and converters, control (TCMS & Subsystem controllers) and predictive maintenance solutions, based on in-house developments of power and control electronics.*

*Our traction systems offer high energy performance, maximum reliability and reduced maintenance costs, adapted to our clients' requirements, based on INGETRAC traction converters, electrical machines and auxiliary elements, and cover the entire range of catenary voltages and powers. At InnoTrans 2022, we will be showcasing products applied on latest railways rolling stock. INGETRAC traction converters are based on Basic Power modules; they are the key to modularity on our designs along with a high degree of standardization.*

*Our stand on Hall 9 will be showcasing the basic power modules which are at the basis of INGETRAC converters. INGETEAM boosts its railway and sustainable mobility activities including on its offer, traction motors and generators adapted to the requirements of each project. INGETEAM will show on Hall 27 its INGESYS control range, specifically designed for railway applications with EN50155 and EN45545-2 certification, responds to both the automation needs existing in the train (and subsystems).*

**Visit us on Hall 9 Nr. 615:  
Traction system and Equipment.  
Visit us on Hall 27Nr700:  
Control and Automation.**



## KNORR-BREMSE ESPAÑA

Empresa líder en sistemas de frenado, de aire acondicionado y sistemas automáticos de puertas de acceso para vehículos ferroviarios. Knorr-Bremse España, S.A., en Getafe, Madrid, pertenece al grupo alemán Knorr-Bremse, fabricante líder a nivel mundial de sistemas de frenado y sistemas de abordaje para vehículos ferroviarios y comerciales. Su división de FRENOS encabeza el mercado español en diseño, fabricación y venta de sistemas de frenado y sistemas de detección de descarrilamiento para vehículos ferroviarios, así como sistemas automáticos de puertas de acceso IFE. MERAK está enfocada al desarrollo, fabricación, venta y servicio de sistemas de aire acondicionado para todo tipo de vehículos ferroviarios. MERAK tiene unos 100.000 sistemas funcionando en todo el mundo y en todo tipo de condiciones ambientales, con soluciones innovadoras que abarcan equipos ultra-compactos, utilización de refrigerantes sostenibles de nueva generación, con reutilización de energía de frenado o de purificación de aire con tecnología clean[air], entre otros. Destaca por su capacidad de integración de sistemas y servicio al cliente en toda la cadena de valor, incluyendo localización.



# High Speed Rail Network in Spain

Preliminary and detailed design, and construction supervision of more than 3,400 km of lines.



## New Kanpur Metro Network, India

- Knowledge, experience, technical skill and corporate independence.
- More than 55 years' experience designing conventional and high speed railways, metros and tramways, enables us to develop ambitious plans all over the world.
- Designing and helping to build more than 100 km of tunnel a year.
- In-house applied technology and new advanced systems. More than 30 R&D projects currently underway.
- Exporting Spanish engineering to all continents for sustainable development and improving quality of life.



## Eglinton Crosstown West LRT Extension, Toronto, Canada

## HS2 High Speed Railway, United Kingdom



great infrastructure is built on great engineering

InnoTrans 2022. Visit us at: Hall 22 / Stand 710

Transport | Water | Buildings and Cities | Environment | Energy | Industry | Consulting Services





## MASATS

Masats fabrica sistemas de accesibilidad. Su gama incluye puertas deslizantes-encajables, rampas y estribos. Para infraestructuras cuenta con puertas de andén PSD y Gap Fillers.

Presentará en InnoTrans dos innovaciones mundiales:

- Las nuevas PASD o PUERTAS DE PLATAFORMA ADAPTABLES. Todos los paneles pueden moverse rápidamente en diferentes direcciones, por lo que son capaces de dar servicio a trenes con diferente configuración de vagones y puertas.
- Nuevo dispositivo de acceso sin contacto RF3+ que se ha lanzado recientemente. Se trata de un dispositivo que detecta la posición del andén y se despliega como rampa, escalón o placa-puente según sea necesario.

*Masats specializes in accessibility Systems for public transport. Its portfolio includes sliding-plug doors, ramps, and steps. For infrastructures produces PSD doors platform screen doors, and Gap Fillers.*

*Masats will be presenting two worldwide innovations at InnoTrans:*

- *New PASD or ADAPTABLE PLATFORM SCREEN DOORS. All panels can move fast in different directions, so they are capable to provide service to trains with different car and door configuration.*
- *New Contactless access device RF3+ that was launched recently. It's a rail vehicle access device, that detects the platform and deploys as ramp, step or gap filler as needed.*

Pabellón 3.1 Stand 360.  
[www.masats.es/en](http://www.masats.es/en)



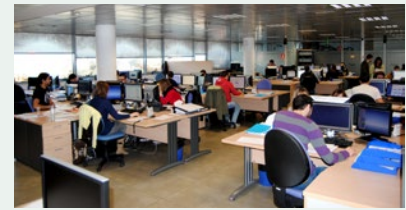
## MERSEN

*Mersen is a global expert in electrical energy and advanced materials. Mersen designs innovative solutions to meet the specific needs of its customers to enable them to optimize their manufacturing processes in sectors such as energy, transportation, electronics, chemicals, pharmaceuticals and process industries.*

*In the transportation sector, Mersen optimizes the performance of all type of rolling stock: trains, trams, metro, electrical buses. Mersen has many years of proven expertise worldwide and is committed to the revolution of tomorrow's transportation. Mersen has established long-term partnerships with major railway manufacturers supported by a global and local organization. Mersen brings its expertise to you with products designed to meet your standards. Our solutions include third rail current collectors, on-board switches, fuse boxes, enclosed lightning arresters, and earth return current units. Our highly specialized products integrate protection components and power interconnection solutions.*

*Mersen has the expertise to offer high quality, robust and reliable solution devices for long-term life in the harshest environments. We take pride in backing up our products with expert advice by our experienced technical and customer support teams.*

*We serve rail train designers, engineering services, and transit authorities.*



## METRICA

### Diseño integral de material rodante

Somos una ingeniería mecánica con 20 años de experiencia en el desarrollo de material rodante y con una capacidad anual de 75.000 horas.

Realizamos un servicio integral que engloba: diseño y cálculo de la estructura de caja, diseño integral de interiorismo, diseño de instalaciones neumáticas, eléctricas e hidráulicas, diseño de superficies exteriores, así como el diseño de los utillajes y medios productivos para su fabricación. Los proyectos realizados incluyen tranvías, metros, cercanías, alta velocidad y funiculares.

Estamos certificados acorde a las normas ISO-9001, ISO-14001 y la EN\_15085-2\_CL4 para soldadura de vehículos y componentes ferroviarios.

### Rolling stock integral design

*Metrica is a mechanical engineering company with more than 20 years of experience in the development of rolling stock and with an annual capacity of 75,000 project hours.*

*We carry out a comprehensive service that includes design and calculation of the box structure, interior design, design of pneumatic, electrical, and hydraulic installations, design of exterior surfaces, as well as the jigs and production tools for manufacturing.*

*The projects carried out include trams, metropolitan underground, suburban, regional, and high-speed trains, and cable cars.*

*We hold ISO-9001 and ISO-14001 certifications. Metrica is also certified in EN\_15085-2\_CL4 for designing welding railway vehicles and components.*

Tel.:+34 976106695  
[info@ingemetrica.com](mailto:info@ingemetrica.com)  
[www.ingemetrica.com](http://www.ingemetrica.com)





## IT'S LIKE CONNECTING POINTS COMO CONECTAR PUNTOS



Hall 26-Stand307

This is  
our job

A task so simple that even a child could do it... or maybe not? At Amurrio we have been designing, producing and installing railway equipment since 1880. Experience has taught us to apply

the most advanced technologies to make very complex problems appear simple. And to create junctions, links and turnouts for all types of paths: conventional, high speed, urban rail and heavy haul.

Would you like to move your rail project forward like child's play?

Come to Amurrio. We will help you connect all the dots.

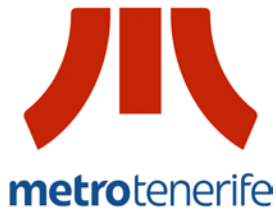
Así es  
nuestro  
trabajo

Una tarea tan sencilla que hasta un niño podría llevarla a cabo... ¿o no? En Amurrio diseñamos, producimos e instalamos material ferroviario desde 1880. La experiencia nos ha enseñado a aplicar las tecnologías más

avanzadas para conseguir que problemas muy complejos parezcan sencillos. Y a crear uniones, enlaces y desvíos para todo tipo de trazados: convencional, alta velocidad, urban rail y heavy haul.

¿Le gustaría hacer que su proyecto ferroviario avance como si fuera un juego de niños?

Venga a Amurrio. Le ayudaremos a conectar todos los puntos.



## METROTENERIFE

METROTENERIFE es una empresa operadora de tren ligero constituida en España en 2001. Su experiencia acumulada en O&M de sistemas ferroviarios, le permite ofrecer servicios de consultoría a otros operadores y Autoridades de Transporte en: planificación, diseño, pruebas y puesta en marcha, formaciones, O&M, etc. Además, su equipo de ingeniería desarrolla soluciones innovadoras para satisfacer las necesidades de otros operadores, creando sistemas de transporte más eficientes, por ejemplo: SIMOVE for railways, Via-Movil y la Chaqueta extraíble de carril.

METROTENERIFE ha desarrollado proyectos de transporte urbano e interurbano para clientes de Europa, América, África y Oriente Medio.

*METROTENERIFE is an LRT operator constituted in 2001 in Spain. The accumulated expertise operating and maintaining railway systems, provides the company the ability to offer a variety of consultancy services to other operators and Transport Authorities: planning, design, testing & commissioning, service simulations, trainings, O&M, etc. Furthermore, its engineering team develops innovative solutions that meet the needs of operators worldwide, creating more efficient transport systems, as for instance: SIMOVE for railways, Via-Movil and the Removable Insulating Chamber.*

*METROTENERIFE has developed projects for clients in Europe, America, Africa and Middle East, involving urban and interurban rail transport.*

Visítanos en InnoTrans 2022,  
en el hall 22 stand 710

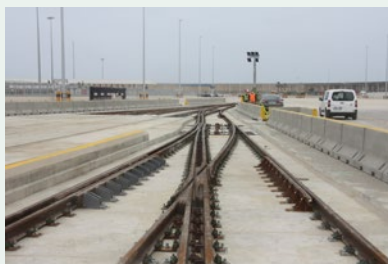
## MIERES RAIL

Mieres Rail S.A., certificada ISO 9001, ISO 14.001, ISO 45.001 e ISO 50.001, está especializada en el diseño y fabricación de aparatos de vía y cruzamientos fundidos de acero al manganeso. Damos respuesta a las necesidades planteadas por nuestros clientes en cuanto a geometrías o especificaciones técnicas, tanto para metros, como líneas convencionales, líneas de Alta Velocidad, ferrocarriles industriales, con alta carga por eje, cocheras ... y para cualquier tipo de carril, inclinación, ancho de vía, tipo de plataforma, cruzamientos de punta fija o punta móvil, traviesas de madera u hormigón, velocidad o carga/eje.



*Mieres Rail S.A., certified ISO 9001, ISO 14.001, ISO 45.001 e ISO 50.001, is specialized in designing and manufacturing railway turnout systems and manganese steel casted crossings. We provide solutions to our customer's requests regarding geometries or technical specifications, for metro, conventional lines, High Speed lines, industrial railways, high axle loads, depots, .... for any type of rail and inclination, gauge, type of track, fixed or swing nose crossings, wooden or concrete sleepers, speeds, or axle/loads.*

[www.mieresrail.com](http://www.mieresrail.com)



metroligero  
**oeste**

15 AÑOS  
SUMANDO

## MLO

*Metro Ligero Oeste (MLO) is a public transport concession that manages two of the four light rail lines in the Community of Madrid: ML2 and ML3, which connect the municipalities of Boadilla del Monte, Alcorcón, Pozuelo de Alarcón and Madrid, to the Metro, Railway and Bus networks.*

*Responsible for the construction, finance, operation and maintenance of the entire system whose Commercial Service began in July 2007, with a workforce of 216 people, 23 million kilometers traveled, 90 million passengers transported, punctuality rates of around 99% and Service Quality of 8.2 out of 10. It has established itself as a safe and sustainable mobility project that has evolved to adapt to the needs of the cities of the future, being considered one of the projects best integrated into the dynamics of a locality within its transport category.*

*MLO has been committed to innovation during these fifteen years with the aim of improving safety and the traveler's experience. Milestones such as the traffic safety control system (SIMOVE), USB charging points in vehicles and WiFi throughout its route, among others, stand out.*

*Certified in ISO 9001, 14001, 45001, Operational Railway Safety and Family-Friendly Workplace.*

[www.metroligero-oeste.es](http://www.metroligero-oeste.es)



## RENFE

### Renfe, operadora de Servicios Públicos y de Servicios Comerciales

Renfe es una empresa pública de transporte de viajeros y mercancías que, por aplicación de las directivas europeas, presta dos tipos de servicios completamente diferenciados en cuanto a su financiación: obligaciones de servicio público y servicios liberalizados.

#### Obligaciones de Servicio Público (OSP)

En la actualidad, Renfe opera los trenes incluidos en obligaciones de Servicio Público, OSP, los correspondientes a los servicios de Cercanías y Media Distancia. Estos servicios son considerados esenciales y con ese planteamiento reciben subvención del Estado, que es el titular de estos servicios. Así, el Gobierno de España o las Comunidades Autónomas, con competencias, son las Instituciones las que fijan los servicios que deben prestarse en cada territorio mediante un contrato-programa.

#### Servicios liberalizados

En cuanto a los servicios liberalizados, Renfe compete en el mercado, sin ningún tipo de subvención estatal, con otras empresas ferroviarias que también prestan servicios de transporte: desde 2005 por lo que respecta al transporte de mercancías y desde diciem-



bre de 2020 en el de viajeros. Renfe comercializa estos servicios en competencia a través del Área de Negocio de Servicios Comerciales de Renfe Viajeros (AVE, Avlo, Alvia, Euromed e Intercity) y de la Dirección General de Renfe Mercancías.

Tanto en el caso de viajeros como en el de mercancías la empresa, que debe ser rentable, está sometida a las mismas reglas que la competencia a la hora de fijar precios, definir el esquema comercial más ventajoso, conseguir la máxima satisfacción del cliente y garantizar beneficios y, por tanto, la sostenibilidad económica de la empresa.

#### Renfe, operator of public services and liberalized services

*Renfe is a public passenger and freight transport company that, by application of European directives, provides two completely different types of services in terms of financing: public service obligations and liberalized services.*

#### Public Service Obligations (OSP)

*Currently, Renfe operates the trains included in Public Service obligations. OSP, those*

*corresponding to the Cercanías and Media Distancia services. These services are considered essential and with this approach they receive a subsidy from the State, its owner, who decided to award Renfe the operation until 2027 with the possibility of extension. Thus, the Government of Spain or the Autonomous Communities with powers, are the Institutions that set the services that must be provided in each territory through a contract-program.*

#### Liberalized services

*With regard to liberalized services, Renfe competes in the market, without any type of state subsidy, with other railway companies that also provide transport services: since 2005 in terms of freight transport and since December 2020 in passenger transport. Renfe markets these services in competition through the Commercial Services Business Area of Renfe Viajeros (AVE, Avlo, Alvia, Euromed and Intercity) and the General Directorate of Renfe Mercancías.*

*Both in the case of passengers and goods, the company, which must be profitable, is subject to the same rules as the competition when it comes to setting prices, defining the most advantageous commercial scheme, achieving maximum customer satisfaction and guaranteeing profits and, therefore, the economic sustainability of the company.*

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HALL 3.1 STAND 260

20-23 SEPTEMBER - BERLIN

[hispacold.es](http://hispacold.es)

## MOSDORFER

*With the acquisition of the rail business of a German organisation at the beginning of 2022, Mosdorfer will become a global player in rail infrastructure. These additional products will be used to extend metro, streetcar, regional transport and high-speed lines worldwide. Together with the existing products in overhead lines, this will create exciting opportunities and synergies for the entire company.*

*Our competencies in rail infrastructure:*

*Reliable and maintenance-free infrastructure provides the basis for trouble-free operation of electric railways for local and long-distance travel. Rail traffic is steadily increasing around the world. This places new demands on railway lines – both on existing routes as they expand and on newly built lines.*

*Mosdorfer Rail is a full-service provider offering innovative and sustainable solutions for electric railways and tramways. We maintain a consistent focus on the reliability of the overhead contact system and high track availability.*

*Our competencies:*

- Railway Catenary Systems
- Tensioning
- Insulation technology
- Power supply
- Safety equipment



## REVENGA

Proporcionamos soluciones tecnológicas de movilidad inteligente para metros, ferrocarriles, autopistas, aeropuertos, puertos y autobuses.

TIPublic: sistemas de información al viajero.

RT2P: pago en tiempo real: accesos, expendedoras, ticketing, peajes, back-office, equipos embarcados de validación.

X-THINGS: control de estaciones: escaleras, ascensores, iluminación, energía, etc.

RailXcan: sistemas de inspección del tren/vía: cajas calientes, rueda plana, peso dinámico, objetos arrastrados, caída de objetos, carril roto, gálibo, pantógrafo, etc.

openSAE: gestión de flotas y sistema de ayuda a la explotación.

openITS: gestión de infraestructuras y tráfico: túneles, autopistas, peajes.

RailRox: SIL-4 ECO paso a nivel.

Aguterm+: calefactores de agujas de bajo consumo.

*We provide smart mobility solutions for railways, metros, tramways, highways, airports, ports, and buses.*

*TIPublic Passenger experience: intercomms, PA, PIS, rail telephony.*

*Real Time Payment Platform RT2P: ticketing, access control, tolling, back-office, on-board.*

*Stations Control Platform X-THINGS: remote control of systems such as elevators, lighting, voice&data, IT network, power&energy*

*Rail & Train Inspection System RailXcan: hot box, flat wheel, weight in movement, gauge, dragged objects, broken track, pantograph.*

*Advanced Fleet Management System openSAE.*

*Infrastructure & Traffic Control Platform openITS: tunnels, highways, tolling.*

*SIL-4 ECO Level crossings RailRox.*

*Low consumption Point Heaters Aguterm+.*

## SCHAEFFLER

## SCHAEFFLER

**We pioneer motion**

Schaeffler, líder global en soluciones de rodamientos y tecnologías, proporciona al sector ferroviario, soluciones específicas para cualquier aplicación de rodamientos en vehículos sobre raíles. Su amplia experiencia de más de 100 años en el sector, el amplio conocimiento técnico y la gran implicación en cuestiones de sostenibilidad (por lo que recibió el premio Railsponsible Supplier Award 2021 en la categoría "Climate Change and Circular Economy"), suponen un gran valor añadido para sus clientes.

Conceptos como los costes totales de propiedad (TCO) y los análisis de costes del ciclo de vida (ACV), son fundamentales en Schaeffler, que conoce la importancia que dichos aspectos tienen para los clientes. Por eso, la empresa trabaja en la creación de soluciones optimizadas que incrementan la fiabilidad, reduciendo el mantenimiento de los componentes y, por tanto, reduciendo costes y aumentando la rentabilidad de sus productos.

Rodamientos para cajas de grasa, motores de tracción y para la transmisión, soluciones mecánicas y dispositivos de Condition Monitoring, ... Todo ello, con el fin de garantizar la máxima disponibilidad y el óptimo rendimiento, tanto en transporte de alta velocidad, como de mercancías y para el transporte urbano en las grandes ciudades.





© Alstom / Tommy Hvitfeldt

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TO GREENER AND SMARTER  
MOBILITY WORLDWIDE**

Visit us at InnoTrans, **hall 3.2**

**ALSTOM**  
• mobility by nature •



## SEGULA TECHNOLOGIES

Engineering and consultancy in rolling stock, Segula Technologies Spain is part of the Segula Technologies group, one of the largest engineering groups in the world, with more than 11,000 employees in 28 countries (Argentina, Australia, Austria, Brazil, Canada, China, Congo, Gabon, France, Germany, Hungary, India, Israel, Italy, Japan, Mexico, Morocco, Portugal, Romania, Russia, Slovakia, Spain, Sweden, Switzerland, Tunisia, Turkey, United Kingdom, United States)

Segula Technologies Spain, through its office located in Zaragoza, is a Center of Excellence in the development of rolling stock at an international level, in addition to being the largest engineering in

the rail sector in Spain and Europe in the development of this kind of products. (Locomotives, EMUs, DMUs, High Speed, Subways, LRVs ....).

With more than 25 years of experience in the sector, SEGULA has a team of more than 200 engineers specialized in the realization of rolling stock projects (Sketches-Style, Mock ups, Carbodies development, FE Analysis, Interior & Exterior Design, Electrical systems, Electro-Mechanical integrations, Onboard systems, TCMS developments, RAMS .....) and about 50 consultants in the Signaling area (Software, ERTMS, RAMS ....) and Infrastructure.

The annual capacity for the development of rolling stock project in the offices of SEGULA (work packages) is 300,000 hours of projects, making us the ideal partner of companies such as ALSTOM, CAF, STADLER, TALGO among others.

Hall A, City Cube, stand 710.

## SIEMENS

### Fully digital network rail infrastructure

Siemens Mobility will present its products and solutions at InnoTrans to achieve a more sustainable, comfortable and efficient way of traveling under the slogan 'Destination Digital'. The technological platforms developed by the company help to connect the real and digital world in an easy way. Its products incorporate the possibility of activating and configuring on demand, depending on the customer's needs, a wide range of state-of-the-art digital solutions that improve safety, reduce costs, avoid accidents, save energy or simply obtain the maximum value from rail assets. An example of what will be shown at InnoTrans will be the interlockings in the cloud.



The "Distributed Smart Safe System" or DS3 platform is the first platform providing the basis for moving interlockings and radio block centers to the cloud. Just a few elements such as point machines and balises remaining in the field, while axle counters or track circuits move to the cloud. This increases train punctuality thanks to highest availability, reduces hardware costs, and ensures future-proof infrastructure investments while meeting the highest safety standards in operation. SIL4. DS3 is compatible with existing systems and supports current standards like Eulynx or Neupro.



## STADLER

El ferrocarril contribuye a la lucha contra el cambio climático. Stadler lleva 80 años construyendo vehículos que hacen que el transporte ferroviario sea más atractivo, más competitivo y más sostenible. Para que más pasajeros opten por viajar en tren. Para que se puedan transportar más mercancías por ferrocarril. Para que la revolución del transporte tenga éxito.

En InnoTrans 2022 Stadler presenta las tecnologías que ya están contribuyendo a ello de forma significativa: interconexión digital de vehículos y rutas, sistemas de tracción más sostenibles (eléctricos, baterías o hidrógeno). Resumiendo, vehículos más sostenibles y con el máximo confort.

*Railways protect the climate. For 80 years, Stadler has therefore been building rail vehicles that make rail transport more attractive, more competitive and more sustainable. So that even more passengers choose to travel by rail. So that even more goods can be transported by rail. So that the transport revolution succeeds.*

*At InnoTrans 2022 we will show you the technologies that are already making a significant contribution to this today: digital networking of trains and routes, sustainable electric, battery or hydrogen drives. In short: vehicles more sustainable and with maximum comfort.*

HALL 2.2 / Stand 160.

Outside area:

T04, T08, T09, T10.





# smart mobility technology for a better world



**REVENGA**

Smart Solutions

Passenger Experience  
Real Time Payment Platform  
Stations Control Platform  
Rail & Train Inspection System  
Advanced Fleet Management System  
Infrastructure & Traffic Control Platform  
SIL-4 Eco-Level Crossings  
Low Consumption Point Heaters

**TIPublic**  
**RT2P**  
**X-THINGS**  
**RailXCan**  
**OpenSAE**  
**OpenITS**  
**RailRox**  
**Aguterm+**

! Visit us at InnoTrans 2022  
• Hall 22 - Stand 300



## TALGO

### TALGO 230

*At Innotrans 2022 Talgo will showcase its latest solution for the Euro market: Talgo 230. A truly interoperable train platform, Talgo 230 is being already implemented in Germany for Deutsche Bahn (branded ICE L), and within Denmark's DSB international train services portfolio. Talgo 230 offers train operators maximum versatility with a fully customizable wide range of options. Talgo 230 expands revenue management capabilities by ensuring the highest passenger capacity at platform level, and the best final customer experience. Total cost of ownership is reduced thanks to Talgo's characteristic soft impact on the energy and track-access chapters as well as a consequence of a renewed set of AI-based maintenance solutions.*

*The best alternative for operations across the European rail network with its combined capability to overcome both international and domestic interoperability borders, the Talgo 230 scalability and the new traction systems like the hydrogen power pack Talgo is currently developing, all ensure for a seamless journey in an increasingly integrated passenger market.*

*This product can be fitted with locomotives furnished by Talgo and/or with cab-car, bogie-mounted passenger vehicles for push-pull operations. And as part of Talgo's unique set of technologies, it can also be upgraded up to 330 km/h to expand the fleet into very high-speed operations. To get a glimpse of what Talgo 230 can offer to train operating companies, visit Talgo at Hall 4.2 stand 450 and take a sneak peek of the first ICE L coach.*

## THALES

### Thales, innovación para una movilidad sostenible

Thales está presente en la feria InnoTrans desde hace más de 20 años, en ella muestra sus últimas innovaciones y las evoluciones en su portfolio de productos.

El stand #570 (Hub27) de Thales en InnoTrans contará con diferentes áreas que acogerán soluciones creadas para perdurar, para entregar, para adaptar o para todos, donde se podrán conocer tecnologías CBTC, OCC, de gestión de activos, ETCS, y herramientas de análisis de viaje de pasajeros, entre otras.

Thales mostrará también en su laboratorio Lucy diferentes innovaciones integradas en el mismo como soluciones de detección de obstáculos, autonomía de metro, información al pasajero y soluciones a bordo, y herramientas de analítica de vídeo para la distribución de pasajeros.



### Thales, innovación para sostenible mobility

*Thales has been present at InnoTrans for more than 20 years, showcasing its latest innovations and developments in its product portfolio. Thales' booth #570 (Hub27) at InnoTrans will feature different areas hosting solutions built to last, to deliver, to adapt or for all, where you can learn about CBTC, OCC, asset management, ETCS, and passenger journey analysis tools, among others.*

*Thales will also showcase in its Lucy Lab different innovations integrated in the lab, such as obstacle detection solutions, metro autonomy, passenger information and on-board solutions, and video analytics tools for passenger distribution.*



**Transports  
Metropolitans  
de Barcelona**

## TMB

Como principal operador de transporte público de Barcelona y su área metropolitana, TMB trabaja para mejorar la ciudad y su entorno, asumiendo los retos de futuro que generan los cambios.

TMB ofrece a la ciudadanía dos redes regulares de transporte (la de bus y la de metro) y varios servicios de transporte de ocio y movilidad con los objetivos siguientes:

- Satisfacer las necesidades de movilidad y hacer más cómodos y rápidos los desplazamientos.
- Ofrecer un servicio público accesible para todo el mundo.
- Mejorar la calidad de vida en el área metropolitana de Barcelona, fomentando una movilidad sostenible e inclusiva.

*As the main public transport operator in Barcelona and its metropolitan area, TMB is committed to improving the city and its surroundings, tackling the future challenges that will lead to change.*

*TMB runs two regular public transport networks (bus and metro) and several leisure and mobility transport services with the following objectives:*

- Meet mobility needs and making travel faster and more convenient.
- Offer an accessible public service for everyone.
- Improve the quality of life in the Barcelona metropolitan area by providing sustainable, inclusive mobility.



## TALLERES ALEGRÍA

### Desvíos y material fijo de vía Material rodante

Empresa con actividad exclusiva en el sector ferroviario que desarrolla en dos líneas de negocio altamente especializadas:

- Fabricación de todo tipo de desvíos y material fijo de vía para ferrocarriles de alta velocidad, convencionales, mercancías, metros, tranvías, etc.
- Fabricación y mantenimiento de material rodante, es la Entidad Encargada de Mantenimiento Certificada y fabricante de todo tipo de material remolcado y vehículos autopropulsados para mantenimiento de vía y catenaria.

Con más de 100 años de experiencia empresarial, Talleres Alegría cuenta con una tecnología pun-



tera, los más modernos equipos y máquinas y un equipo humano de profesionales y técnicos altamente cualificados. Consciente de la importancia que tiene la fiabilidad de sus productos, constantemente renueva su compromiso de avance y desarrollo en las últimas y más actuales técnicas de producción, diseño, calidad e investigación con el objetivo de alcanzar la plena satisfacción de sus clientes.

### Turnout Systems

#### Rolling Stock

A Company dedicated exclusively to the Railway Industry and developed into two highly specialized business lines.

First, the design and manufacturing of all types of turnout systems and

other fixed track material for high speed, conventional, heavy haul, metro or tram railway lines.

Second, the construction and maintenance of rolling stock; it is a Certified Maintenance Entity and manufacturer of freight wagons and self-propelled vehicles for track and catenary works.

With more than 100 years of business experience, Talleres Alegría relies on a state-of-the-art technology, the most modern equipment, and a highly qualified human team of engineers and technicians. Aware of the importance of the reliability of its products, TA is continuously renewing its compromise for advance and development into the latest design, production, quality and research techniques. All with the objective of acquiring the full satisfaction of its clients.

HALL 26 – STAND 880  
[www.talegria.com](http://www.talegria.com)

# RAILWAY

## MOSDORFER RAIL FULL-SOLUTION PROVIDER

CATENARY SYSTEMS  
TENSIONING  
INSULATION TECHNOLOGY  
POWER SUPPLY  
SAFETY EQUIPMENT



**InnoTrans 2022**  
20-23 SEPTEMBER  
BERLIN

**HALL 21  
STAND 340**



## RAILLIVE!

FYCOMA MÁLAGA  
29 NOV – 1 DEC 2022  
**STAND 35**



## TOMORROW MOBILITY

Tras una edición piloto en 2021, Fira Barcelona & EIT Urban Mobility celebran de nuevo Tomorrow.Mobility World Congress, evento de referencia mundial en movilidad sostenible e inteligente. Congreso y Expo se centrarán en micromovilidad, transporte público, e-movilidad, logística de última milla e infraestructuras inteligentes. El proyecto combina el evento anual con una plataforma digital de contenidos.

TMWC se celebrará el 15-17 de noviembre en Fira Barcelona junto con Smart City Expo World Congress, evento líder mundial para ciudades. Reunirán 24.000 visitantes internacionales, 700 ciudades y 1.000 expositores, incluyendo las principales marcas e instituciones del sector.



After a 2021 pilot edition, Fira Barcelona & EIT Urban Mobility celebrate again the Tomorrow.Mobility World Congress, the global event accelerating sustainable and intelligent urban mobility. The summit & expo will focus on micromobility, public transport, e-mobility, last-mile logistics, smart infrastructures. The project will combine an annual leading event with a year-round digital platform.

TMWC will be held next 15-17 November at Fira Barcelona together with Smart City Expo World Congress, the world's leading event for cities. Both events will gather over 24.000 international attendees and 1.000 exhibitors, including some of the sector's biggest brands and institutions.

[www.tomorrowmobility.com](http://www.tomorrowmobility.com)



## TYPSA

*More than 50 years designing railways, metros and tramways*

*TYPSA is recognized as a rail engineering authority and the partner of choice for a large number of multinational companies to work in complex projects around the world.*

*Wide experience in high speed rail and conventional railways: TYPSA took part in the first HS Line in Spain from Madrid - Seville, and then helped build most of the country's national network lines. Currently, TYPSA is involved in the design of high speed networks in Sweden and the United Kingdom. TYPSA has also worked on major international projects, such as Madrid - Lisbon HSL, Los Angeles - Las Vegas or Sao Paulo - Rio de Janeiro.*

*Metropolitan transport: TYPSA has considerable experience in this field, not only in metros but also in light metro, tramways and commuter rail lines, and is a leader in design and works supervision.*

*Major international projects:*

- Toronto Metro. Eglinton Crosstown West LRT extension. Canada.
- Stockholm Metro extension. Sweden.
- New Kanpur and Agra Metro networks, India.
- Dhaka Metro, Bangladesh.
- Riyadh Metro, lines 4, 5 and 6. Saudi Arabia.
- Doha Metro, Red and Green Lines. Qatar.
- Sao Paulo Metro Lines 5 and 6. Brazil.
- Sidney Metro, Australia.
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