UITP 2017, la gran cita del Transporte Público *the big event for Public Transport*

Entre el 15 y el 17 de mayo, la ciudad canadiense de Montreal acoge la Cumbre Mundial de Transporte Público que la Unión Internacional de Transporte Público organiza con periodicidad bienal para que todos los actores implicados analicen y debatan sobre las grandes tendencias de futuro de un sector clave para la movilidad, el desarrollo económico y social y la sostenibilidad.

Mesas redondas, talleres, presentaciones y sesiones abiertas de debate se completarán con un área de exposición comercial en la que se darán a conocer las últimas innovaciones, productos y soluciones en materia de movilidad.

Bajo el lema "Lead the TRANSITion" que juega con la idea de liderar el transporte y la transición, la cumbre reunirá, con una importante presencia española, a expertos internacionales en movilidad, autoridades del transporte, organizaciones, operadores y suministradores para identificar y reflexionar sobre los ejes de desarrollo por los que avanzará el transporte público en los próximos años.

Urbanización

Quizá la tendencia más determinante para el transporte público sea la creciente urbanización. Ciudades cada vez mayores llevan a plantear más exigencias de movilidad, con rapidez, seguridad y respeto medioambiental.

Adaptarse a los nuevos modelos sociales de desplazamiento y a la complementariedad de modos es imprescindible para responder al reto de un transporte público sostenible y centrado en las ciudades.

Digitalización

El transporte público está inmerso en un proceso de digitalización que, si bien genera nuevas capacidades y servicios de movilidad más adaptados a la demanda real, también introduce exigencias tecnológicas en el sector de la movilidad.

Las nuevas tecnologías introducen conceptos como movilidad, servicio, transporte a la demanda, ciberseguridad y autonomía y extienden a la movilidad urbana el fenómeno de la ciudad inteligente y la conectividad total.

Monorrail de Las Vegas.

BOMBARDIER

Accesibilidad

Las tendencias demográficas y la creciente exigencia de inclusión implican que el transporte público facilite aún más el acceso a las personas con movilidad reducida.

Más allá de lo puramente operativo la población de las ciudades exige inclusión a todos los niveles y el transporte público juega un papel decisivo en ese campo.

BOMBARDIER

Transporte automático de Toronto .

Eficiencia energética

La necesidad de un medio ambiente, especialmente en lo que se refiera a la calidad del aire en las ciudades es probablemente la mayor exigencia social y el vector más decisivo para el desarrollo del transporte público.

El cambio climático, la sostenibilidad y la exigencia de un entorno más saludable determinan los avances futuros en el campo de los combustibles alternativos, los sistemas de propulsión más limpios y la eficiencia energética.

On 15-17 May 2017, the Canadian city of Montréal is hosting the Global Public Transport Summit, held by the International Association of Public Transport every two years to offer all the players involved a chance to analyse and debate the big future trends of a key sector for mobility, economic and social growth, and sustainability.

Round-table discussions, workshops, presentations and open debate sessions will be completed with a commercial exhibition area where the latest innovations, products and solutions regarding mobility will be introduced.

Organised around the theme "Lead the TRANSITion", which toys with the idea of leading transport and the transition, the summit will have a strong Spanish presence and will gather international mobility experts, transport authorities, organisations, operators and suppliers in order to identify and reflect on the development strategies to be explored by public transport in the coming years.

Urbanisation

Perhaps the most significant trend for public transport is the growing urbanisation. The ever-increasing cities will have to face mobility challenges and do it fast, in a safe way and respecting the environment.

Adapting to the new social models of travelling and the complementarity of modes is key to answer the challenge of sustainable and city-oriented public transport.

Digitalisation

Public transport in immersed in a digitalisation process that, while it generates new capacities and mobility services more adapted to the real demand, it also introduces technological requirements in the sector of mobility.

The new technologies introduce concepts such as mobility as a service, demand responsive transport, cybersecurity and autonomy, and they extend the phenomenon of smart city and total connectivity to urban mobility.

Accessibility

Demographic trends and the growing inclusion demand require public transport to facilitate access for people with reduced mobility even more.

Beyond the purely operational, the cities' population demands inclusion at all levels and public transport plays a key role in that sense.

Energy efficiency

The need for a healthy environment, especially regarding the quality of the air in the cities, is probably the biggest social request and the most decisive factor for the development of public transport.

Climate change, sustainability and the demand of a healthier environment determine future advances in the field of alternative fuels, cleaner propulsion systems and energy efficiency.

Amurrio

Aparatos de vía

Amurrio ha desarrollado una gama completa de aparatos para trazados de tranvía, metro y metro ligero: desvíos, escapes, travesías, bretelles, peines y aparatos de dilatación. Todos se fabrican con cambios armados, partiendo del propio perfil y aceros laminados, agujas de acero al manganeso con talón de perfil (sin cala) para soldar a vía intermedia por soldadura aluminotérmica y corazones de bloque de acero al manganeso con antenas soldadas en punta fija o móvil.

Amurrio ha creado nuevas soluciones, como un corazón de punta móvil diseñado específicamente para trazados urbanos, más silencioso y eficiente, o un corazón híbrido mecanizado a partir de carril con punta de acero al manganeso.

Track equipment

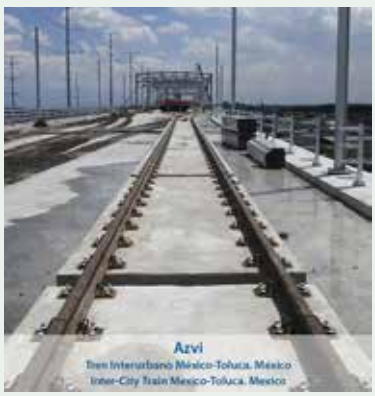
Amurrio has designed and produced a complete range of products for tram, underground and light rail systems. Our range of products includes turnouts, crossovers, crossings, double crossovers, ladder turnouts and expansion joints manufactured with assembled points, starting with the profile itself and rolled steel, manganese steel tongues with profiled heel (no gap) in order to weld to the intermediate track by means of aluminio-thermic welding and manganese steel block crossings with welded antennas in fixed-point or movable-points execution.

We have also developed new solutions such as an innovative movable point crossing designed specifically for urban tracks, more quiet and efficient, or a new rail assembled hybrid crossing with manganese steel point.

Azvi

Construcción y mantenimiento de infraestructuras ferroviarias

Azvi es una empresa centenaria dedicada a la construcción de todo tipo de proyectos de obra civil, cuyos orígenes son eminentemente ferroviarios, formando parte de la historia y la evolución del ferrocarril y sus infraestructuras en España, y, en la actualidad, también en distintos países como Portugal, Rumanía, Brasil y México.



En todos estos años, Azvi ha participado en numerosos proyectos de construcción, rehabilitación, conservación y mantenimiento en más de 2.000 km de vía, de los que más de 460 km son de Alta Velocidad, (infraestructura, montajes de vía, electrificación y señalización, bases de montaje), sin olvidar los proyectos de modernización de ferrocarril convencional y transporte urbano (Metro, Tren-Tranvía, Tranvía, Estaciones Intermodales, etc.).

Pero no sólo la experiencia es importante. Para Azvi la investigación, el desarrollo y la innovación son primordiales para la óptima ejecución de sus trabajos ferroviarios contando con un departamento de I+D+i y con un amplio y moderno parque de maquinaria que le permite ejecutar sus trabajos con maquinaria propia.

Construction and maintenance of railway infrastructures

Azvi is a century-old company dedicated to the construction of all types if civil works projects, whose origins are in railways, forming part of the history and evolution of the railways and infrastructures in Spain, and currently, in different countries such as Portugal, Romania, Brazil and Mexico.

Throughout these years, Azvi has participated in numerous construction, rehabilitation, conservation and maintenance projects over more than 2,000 km of track, of which more than 460 km have been High-Speed Rail (infrastructure works, track assembly, electrification and signaling, assembly bases construction). Updating projects in conventional railway lines and urban transport (Underground, Train-Tram, Tram, Intermodal Stations, etc.) have been also carried out.

But experience is not the only important point. R&D are essential for the optimal implementation of Azvi's projects, having its own department and a large and modern machinery park which allows the company to carry out works with its own machines.

Bombardier

Flexity, Innova, Movia...

Bombardier has presence in urban transport, trams and light rail vehicles, metros, driverless metros and monorail. It offers rolling stock as well as control, signalling and communications systems. The company even supplies a catenary-free power system, the innovative Primove, which uses inductive power transfer. In light rail vehicles, Bombardier offers its Flexity platform of 100% low-floor trams and light rail vehicles, of which are in service 3,500 units in 100 cities. Innovia 300 is Bombardier's product for medium capacity systems, with reduced installa- tion costs, efficient energy consumption systems and low operation cost. The Innovia platform also offers automated systems already in use in over 25 airports worldwide. The Movia platform offers the latest needs of the most demanding metro networks

Flexity, Innova, Movia...

Bombardier est présent dans tous les segments du transport urbain, que ce soit dans les tramways et véhicules légers sur rails, métros, métros automatiques ou monorails. La compagnie offre du matériel roulant mais aussi des systèmes de contrôle, de signalisation, de communication et même le système innovateur Primove d'alimentation sans catenaire avec recharge par induction.

Concernant les véhicules légers, Bombardier propose sa plateforme Flexity de tramways à plancher bas intégral dont 3500 unités sont actuellement en fonctionnement dans plus de 100 villes partout dans le monde. Pour les systèmes de capacité moyenne, Bombardier propose la plateforme Innovia avec des coûts d'installation réduits, des systèmes efficients de consommation d'énergie et des coûts opérationnels faibles. Innovia offre également des systèmes automatiques déjà en fonctionnement dans plus de 25 aéroports. Finalement, la plateforme Movia répond aux dernières demandes des réseaux de métro les plus exigents au niveau mondial.

www.bombardier.com
@BombardierRail

CAF

CAF, Comprehensive Rail Solutions

CAF is one of the world leaders in the design and implementation of comprehensive transit systems. CAF provides comprehensive project and engineering management throughout all stages of the project including feasibility analysis, system design, civil work, signalling, electrification, other electromechanical systems, rolling stock supply and system operation and maintenance.

In terms of rolling stock, CAF supplies and maintains a wide range of rail vehicles: high speed trains, regional and commuter trains, locomotives, metro units, light rail vehicles and tramways.

A growing number of cities across the world choose CAF rail solutions as a guarantee of a sustainable, high-safety means of transport. Regarding metros, CAF relies on its solution Inneo, a range of metro units equipped with the latest technological advances in terms of safety, performance and comfort. Featuring highly standardised equipment and service-proven solutions, Inneo metro units offer optimal reliability throughout their entire life cycle.

CAF has several metro solutions that have been designed to operate at different automation levels, including fully automated operation (GoA 4). This type of system offers maximum safety with the help of state-of-the-art technology applied to movement supervision.

Its most recent references include metros for Brussels, Mexico D.F. and Medellin. CAF is also supplying fully automated metros for the cities of Istanbul and Santiago de Chile.

Regarding tramways, CAF has the Urbos solution, a range of state-of-the-art trams, designed with the best passenger accessibility conditions. Urbos is a complete low-floor tram which facilitates the boarding and alighting of passengers to and from the vehicle.

Urbos trams respond to the highest eco-design requirements. These vehicles can include Greentech technology for catenary-free operation. This is an on-board energy storage system, based on lithium-ion supercapacitors and batteries.

Today, CAF is manufacturing new tramways for cities such as Amsterdam, Luxembourg, Canberra or Boston, among others.

Visit CAF at stand 2F102.
www.caf.net

Cetest

Fully accredited ISO17025, CETEST is an experienced laboratory in railway vehicles and components testing. Its offering covers a wide variety of component test benches at its facilities combined with a global on-track measurement deployment capacity with portable equipment, helping customers all over the world to test rail products and systems.

From validation and verification testing in development phase to product homologation and also failure detection / root cause analysis in after-sales operation, CETEST can assist you during the full lifecycle of your product.

Its customers include passenger, freight and special track vehicle manufacturers as well as component suppliers. It is also very active in the testing related to operations improvement for rail operators and infrastructure managers. Additionally, it works closely with other railway organizations, namely Notified Bodies, engineering firms and authorities. CETEST has been involved in projects with the most significant railway players in North America: Bombardier, Metrolinx Toronto, Amtrak, NYCT, Kawasaki, Nippon Sharyo, CAFUSA, Brookville Equipment Corp.…

Experts in instrumentation, measurement and control, providing testing according to international standards, as well as fully tailor-made solutions.

Some of its fields of expertise are: structural integrity and fatigue testing of car bodies and truck bolsters/frames; validation of wheels, axles and bearings; static characterization of full vehicles (with portable platforms), on-track dynamic testing (including measuring wheelsets), climatic tests, traction and energy consumption, braking performance, noise, vibrations, EMC, aerodynamics…

Most of its test benches can be transported to its customer´s facilities and they have been designed according to North American Standards; carbody compression and suspension characterization test benches, amongst others.

CETEST also has a climate room facility in the US (NY), ideal for performing HVAC or refrigeration system qualification on new or modified vehicles.

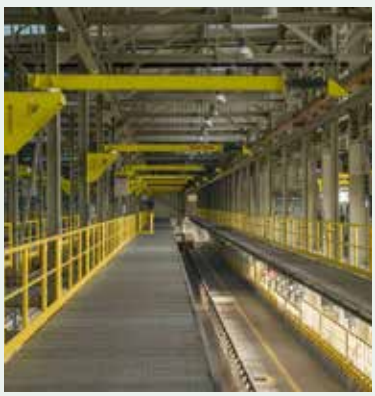
First-class testing services with maximum quality and the higher level of flexibility! Your Test and Evaluation Department. Anywhere. Anytime.

CETEST, railway testing
www.cetestgroup.us

Electren

Implementation for subway and light rail systems

Electrén has carried out more than 80 facility installations upgrade, maintenance and improvement projects: Installation of 1500 V DC electrical substations; converting electrification voltage from 600 to 1500 V; SENCO interlock systems in depots for maintenance work; depot electrification with tramway catenary, rigid catenary and removable rigid catenary systems, with transitions between them.



Highlights among the work performed:

Poland:

- *Design and construction works for "Moving rigid catenary and control system in Pendolino Depot in Warsaw" – 700m of moving rigid catenary, control system and accommodation for systems 3kV DC, 15kV AC and 25kV AC power supply system.*
- *Design and construction works for "Rigid catenary and control system in Tramway Depot Franowo in Poznan" – 1100 m. of rigid catenary with moving sections and control system.*

Spain:

- *Catenary tramway line for Metro Ligero Oeste on the Boadilla – Colonia Jardín route, Madrid.*
- *Maintenance of ventilation systems and automation and control systems for Metro de Madrid.*
- *Renewal of tunnels and overhead line equipment for Line 1 Metro de Madrid.*

UK:

- *London Underground power upgrade framework. ELECTREN UK is one of 17 the suppliers selected for HV electrical system modernization.*

ELECTREN has also developed modular substations 'motracs' which are pre-assembled in workshops, within maritime containers, for intermodal transport to its final destination. The FAT tests can be simulated at the workshop, and the solution is suitable for systems 1 x 25 kV AC, 2 x 25 kV. AC, and in systems 1500 V. DC or lower voltages.

Currently ELECTREN has branches in Spain, France, UK and Poland.

www.electren.com

Railway solutions for our small world

Turnout for the Mecca-Medina High Speed line

Double crossover installed in Metro Buenos Aires

Toluca-Ciudad de México Intercity Train

Tram crossover for Athens - Piraeus line

High-speed turnouts that work in the most adverse conditions of the planet: the Arabian desert.
Renovation of track apparatus in an underground station inaugurated in 1934 in Buenos Aires. With twenty-first century performances, of course.

Track apparatus for a line that will carry 230,000 passengers a day, between Toluca and Mexico City.
Or for the tram Athens-Piraeus.
In Amurrio we bring all our knowledge in each of our projects, big or small.
Anywhere on the globe.

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That is getting smaller by the day.

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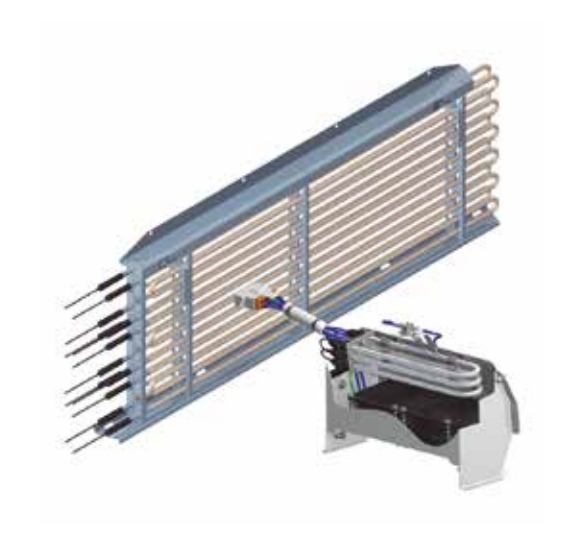
Electricfor



Equipos de calentamiento eléctrico

Electricfor diseña y produce equipos de calentamiento eléctricos para acondicionamiento de aire (calefacción) y calentamiento de agua en medios de transporte ferroviario. Los elementos desarrollados por la compañía van incorporados en los equipos HVAC, así como repartidos en diferentes puntos de los compartimentos (suelo, paredes, asientos, etc.) para garantizar una óptima repartición del calor. La gama para aire comprende baterías eléctricas con resistencias tubulares, convectores, cable calefactor y elementos flexibles. Para aplicaciones en sistemas sanitarios y módulos integrales de aseo ha desarrollado una gama de calentadores de paso, que incorporan resistencia de inmersión, control de temperatura y aislamiento exterior.

La empresa está presente en los principales fabricantes de material rodante, con elementos adaptados a cada necesidad.

Electrical heating equipment

Electricfor designs and produces electrical heating equipment for air conditioning (heating) and water heating in rail transport. The elements developed by the company are incorporated in HVAC units, distributed in different points of the compartments (floor, walls, seats etc) to guarantee an optimum heating distribution. The range for air contains electric batteries with tubular heaters, convectors, heating cable and flexible elements. For applications in sanitary systems and built-in toilet units a range of in- line heaters has been developed, which incorporate immersion heaters, temperature control and exterior insulation.

The company is present in the principal rolling stock manufacturers, with elements adapted to each requirement.

Globalvia

Globalvia es una empresa líder mundial en la gestión de infraestructuras de transporte con presencia en ocho países y que controla un portfolio de 27 proyectos de PPP (Colaboración Público-Privada) con más de 1.500 empleados.

Constituida en 2007, actualmente el accionariado de la compañía está formado por tres fondos de pensiones internacionales: OP Trust (Canadá), PGGM (Holanda) y USS (Reino Unido).

El objetivo de Globalvia es la generación de valor a sus accionistas a través de una selección de inversiones en activos de infraestructuras, tanto greenfield como brownfield. Especializados en el sector de las autopistas y los ferrocarriles con más de 1.600 km de vías, Globalvia es líder en España en el transporte privado de pasajeros con 54 millones al año y 250 millones de vehículos transitando por sus autopistas.

Gracias a su política de crecimiento e internacionalización, en este año 2017 Globalvia ya ha cerrado tres operaciones estratégicas abriéndose paso en el mercado estadounidense con su Autopista Pocahontas Parkway y elevando su posicionamiento en Portugal como accionista mayoritario en dos activos clave para la compañía, Autoestrada Transmontana y Scutvias.

Globalvia is a worldwide infrastructure concession leader with presence in eight countries and manages 27 PPP (Public and Private Partnership) projects with more than 1.500 employees.

The company was established in 2007 and is managed by three relevant international pension funds: PGGM (Netherlands), OP Trust (Canada) and USS (United Kingdom).

Globalvia's objective is to generate value for its shareholders by managing strategic asset portfolio, both greenfield and brownfield. Specialized in highways and railways and managing more than 1.600 km, Globalvia is leader in private management of rail systems in Spain covering 54 million passengers per year and 250 million people using its highways.

Thanks to its growth and internationalization's strategy, during 2017 Globalvia has already completed three strategic operations gaining access to US market with his first concession, Pocahontas Parkway Highway, and reinforcing its position in Portugal as the main shareholder in two key assets, Autoestrada Transmontana y Scutvias.

www.globalvia.com

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Ingeteam

Eficiencia energética

INGETEAM, experto en el desarrollo y la fabricación de sistemas y equipos que facilitan los intercambios de energía en sectores estratégicos.

En el sector ferroviario, ofrece desarrollos tecnológicos propios, que maximizan la eficiencia operacional, tanto para material rodante (Sistemas de Tracción y de Control), como para infraestructura (Sistemas de Recuperación de Energía).

Con el desarrollo del sistema INGEBER, ofrecemos una solución transparente, que permite maximizar el aprovechamiento de la energía eléctrica utilizada en el sistema ferroviario, permitiendo superar todas las limitaciones en la devolución de energía por parte de los vehículos.

El sistema consta de un equipo de electrónica de potencia, instalado en la subestación y conectado a los equipos principales ya existentes.

Energy efficiency

INGETEAM is expert in the development and manufacture of systems and equipment providing energy exchanges in strategic sectors.

We strive towards on offering in-house/state-of-the-art developments leading to maximize operational efficiency for both rolling stock (Traction & Control Systems) and for infrastructure (Energy Recovery Systems).INGEBER, kinetic energy recovery system, fits into the current operator´s infrastructure (substation), optimizing the energy recovered and making it available to the distribution network, storage or operator´s installation. INGEBER enables all the limitations associated with the return of energy from the vehicles. The power electronics equipment is installed in the substation and connected to the main equipment that already exists in the substation, such as the transformer and rectifier.

Knorr-Bremse España, S.A.

Empresa líder en sistemas de frenado y aire acondicionado para todo tipo de vehículos ferroviarios.

Knorr-Bremse España, S.A. pertenece a la División Ferroviaria del grupo alemán Knorr-Bremse, fabricante líder a nivel mundial de sistemas de frenado y sistemas de abordo para vehículos ferroviarios. Con sede en Getafe, Madrid, Knorr-Bremse España, a través de su división de FRENOS, es líder en el mercado español en fabricación y venta de equipos de freno, sistemas electrónicos y sistemas de detección de descarrilamiento para vehículos ferroviarios, así como sistemas automáticos de puertas de acceso IFE.

Su división MERAK se dedica al desarrollo, fabricación, venta y servicio de sistemas de aire acondicionado para todo tipo de vehículos ferroviarios. Actualmente Merak tiene cerca de 100.000 sistemas funcionando en todo el mundo y en todo tipo de condiciones ambientales, con soluciones innovadoras que abarcan equipos ultra-compactos, de filtrado de arena, o de reutilización de energía de frenado, entre otros. Destaca por su orientación a proyectos, capacidad de integración de sistemas y servicio al cliente en toda la cadena de valor, incluyendo localización.

www.knorr-bremse.es
www.merak-hvac.com

Leading company in braking and HVAC systems for all type of railway vehicles.

Knorr-Bremse España, S.A. belongs to the Rail Vehicle Division of the German group Knorr-Bremse, global leading manufacturer of braking and on-board systems for rail vehicles. Based in Getafe, Madrid, Knorr-Bremse España, through its FRENOS division, is leader in the Spanish market for the manufacturing and supply of brake systems, electronic equipment and derailment detection systems for railway vehicles, as well as automatic access door systems IFE.

MERAK division specializes in the development, manufacturing, sales and service of heating, ventilation and air-conditioning (HVAC) systems for all types of railway vehicles. As of today, Merak has close to 100.000 systems in daily operation all over the world and under all kind of environmental conditions, with innovative solutions including ultra-compact units, sand filtering or braking energy reuse, among others. It stands out for its project-orientation, systems integration capacity and customer service throughout the entire value chain, including localization.

ELECTREN

Energy Solutions for the Railway

ELECTRÉN is a company specializing in electrification for the railway industry with over 25 years experience.

A member of the VIAS group, which belongs to the ACS business group, ELECTREN specializes in power projects covering overhead lines equipment (OLE), traction power distribution substation, protection&control, telecom&scada and specific R&D projects. Our business is predominantly the main contractor for public railway public sector companies.

We also work as a contractor with the largest companies within the rail industry.

MAS

Senco

ART10

simutracs

Remote disconnectors	Electrical Interlock Systems	Mobile Traction Substations AC / DC	Distributed Control System (DCS) ART 10	Simutrac Traction Simulator	Modular Traction Substations AC /DC
Galvanic isolation of power circuits and communication networks	Double mechanical and electrical interlocking	Simplified maintenance and renewal of substations	Continuous monitoring and system status diagnostics	Simulation scenarios using FAT	Manufacture controlled by industrial processes
Simulation before operation	Safety assurance for complex depots	Fast installation	Simplified maintenance No dependence on the integrator	Fast training for maintenance teams	Intermodal transport
Industrial hardware Standard protocols	Permanent monitoring system				Cost effective solution compared to traditional methods
					Interchangeability flexibility and Availability

Design, procurement and construction projects

Overhead line equipment, traction power substations, low voltage distribution, automation

Turnkey projects

Integral Maintenance

proTRANS empowered by Achilles

RePro empowered by Achilles

www.electren.com - Avda. de Brasil, 6 - 28020 Madrid - Tfno. +34 915 548 207 - SPAIN - UK - FRANCE - POLAND

Mafex
Spanish Railway Association

Activity: *Non-profit association with the primary objective of providing a service to the Spanish railway sector, by assisting its 70 plus companies with their internationalisation, strategy and innovation activities, and by defending the general interests of its associates. To do so it draws on the more than three decades of experience and prestige of the AGEX Group to which it belongs, and on the support of public Bodies and Institutions with which it collaborates.*

Main products and services: *To achieve its goals, Mafex organises business delegations (direct and reverse), is involved in trade fairs in the sector, conducts market research, channels inquiries by foreign companies, arranges technical seminars, advertising campaigns and other marketing and institutional representation activities.*

It also has various strategic committees and work groups that work on the Association's three main strategic goals: improving internationalisation, boosting representation of the sector and increasing the competitiveness of its associates.

Metrotenerife

Metrotenerife provides with technical assistance covering the whole project cycle of railway infrastructures:

1. *Conception: analysis of mobility, feasibility studies, railway infrastructure design, planning, drafting of the technical and administrative specifications, management of tenders…*
2. *Construction: planning, management and technical assistance on site, follow-up, building and quality certificates…*
3. *Pre-operation, operation and maintenance: execution and interfaces controls, test and trials, pre-operational stage, service simulation, development of the operating program, definition and optimization of the service…*

Metrotenerife has provided advice to clients from various countries: Spain (Tenerife, Cádiz, Málaga, Zaragoza, Madrid), Morocco, Egypt and Israel, and has been operating and maintaining Tenerife Tram lines since 2007.

Moreover, Metrotenerife, based in its own experience as railway operator, has designed and developed the following products:

SIMOVE (Speed Monitoring and Control Safety System). This safety innovation allows the operator to continuously monitor and control the speed of its vehicles combining GPS reporting and the vehicle's odometer, to compare the position and speed of any railway vehicle with the appropriate speed for any given section of the line. If excess speed is detected, SIMOVE immediately alerts the driver by means of a speedometer inside the cabin and an audible alarm. In the event the emergency speed is reached, the system would automatically apply the emergency brake to stop the vehicle, preventing human errors leading to hazardous situations.

View the SIMOVE video: https://youtu.be/PnRr5PeB0v0

VIAMOVIL. Is an integral ticketing systems based on users' own smartphones and tablets (iOS and Android), independent of communications operators, financial institutions, manufacturers of smartphones, chips... It can be deployed in 2-3 months, with low investment and without on-board infrastructure, supplying information in real time and compatible with other kinds of activities unconnected with public transport.

View the Vía Móvil application video:
https://vimeo.com/channels/592978/127144523

For further information:
Metrotenerife
+34 922 024 814
contact@metrotenerife.com
www.metrotenerife.com

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smart city expo
WORLD CONGRESS

Redalsa

Tecnología de vía: Redalsa es una empresa líder en el sector ferroviario que pertenece al grupo ADIF. Se fundó en 1974 y se dedica desde entonces a la fabricación y mantenimiento de equipos e infraestructuras. Nuestras principales actividades son:

- Soldadura eléctrica en vía con robot de soldadura.
- Soldadura eléctrica de carril de hasta 288 metros para líneas de Alta Velocidad y Red Convencional.
- Regeneración del carril usado para formar barra larga soldada.
- Suministro de sistemas completos de fijación. Láminas J2.L1 o P50 para J2 y clips elásticos SKL1, SKL14, SKL12 y SKL-12RE.
- Inspección ultrasónica de soldaduras.
- Inspección ultrasónica de carril, con equipos manuales y con equipo móvil autopropulsado hasta 90 km/h.
- Inspección dinámica de geometría de vía.
- Montaje de desvíos con carros y pórticos autopropulsados.

Rail Technology: Redalsa is a leading global rail technology company of ADIF business group. Began service in 1974 and since then is engaged in the manufacture and maintenance of equipment and infrastructure. Our main activities are:

- *Electric welding on site with a welding robot.*
- *Electric welding of rails up to 288 meters high speed lines and Conventional Network.*
- *Regeneration rail used to form long welded rail.*
- *Providing complete fastening systems. Plates J2.L1 or P50 for J2 and elastic clips SKL1, SKL14, SKL12 and SKL12RE.*
- *Ultrasonic inspection welding*
- *Ultrasonic inspection rails, with manual equipment and self-propelled mobile equipment up to 90 km / h.*
- *Dynamique geometrical inspection of rail.*
- *Laying of switches with trolleys and self-propelled gantries.*

Smart mobility world congress

Innovative Solutions for Urban Mobility

Transportation and mobility have a new home, a place to explore a smarter and better future: Smart Mobility World Congress. Organized by Fira de Barcelona on a yearly basis, the new event is the result of the merging of BcnRail, the International Railway Industry Exhibition, and Smart City Expo World Congress' Mobility track. The new trade show and congress will be jointly held with Smart City Expo World Congress from November 14th to 16th in Fira de Barcelona's Gran Via venue and will explore the most innovative advances in urban and interurban mobility.

The Smart Mobility World Congress will gather the leading institutions and companies in the field of mobility and will have a dedicated area that will host every transportation keynote and panel. Even though a multi-modal approach will become key to guarantee efficient urban mobility, the new event will highlight the critical role of the railway industry in the future of mobility through a series dedicated spaces and side events such as the BcnRail Forum and the annual congress of Alamys, the Latin American Association of Metropolitan and Underground trains.

The joint celebration of Smart Mobility World Congress and Smart City Expo World Congress will create a unique platform of urban knowledge. In its latest edition in 2016, the leading international summit on smart cities gathered 600 cities and 16.688 visitors - 30% more than in 2015 - 55% of them international, breaking all records of the event. The participants were able to share experiences, broaden their network, discover the latest solutions shown by the 591 exhibitors and learn from the 420 experts who took part in the congress. The event focused on the strategies available to promote the empowerment of citizens and their greater involvement and participation in municipal processes and design.

SMARTMOBILITY
WORLD CONGRESS
14-16 NOVEMBER 2017
GRAN VIA VENUE

www.smartmobilitycongress.com

thalesgroup.com

Soluciones para Transporte Terrestre

Allí donde la protección y la seguridad son fundamentales

DESEMPEÑO
Mejoramos la disponibilidad la capacidad y la fiabilidad

CONECTIVIDAD
Garantizamos la movilidad segura de bienes y personas

SEGURIDAD
Protegemos las insfraestructuras críticas

EXPERIENCIA
Garantizamos a los pasajeros un transporte de calidad

VISIÓN
Ofrecemos tecnologías de última generación

A diario se toman millones de decisiones en el campo del transporte. Por ello, la empresa Thales es clave en la gestión de complejos proyectos de ingeniería. Suministra soluciones de señalización urbana y ferroviaria, tecnología de comunicaciones y de supervisión y servicios de mantenimiento. La experiencia de Thales Group permite dar una respuesta ágil ante amenazas de seguridad. Allí donde la seguridad es crítica, Thales responde.

Buscar: Thalesgroup

THALES
Together • Safer • Everywhere

Stadler

Soluciones individualizadas para el transporte urbano

Stadler posee una amplia gama de vehículos ferroviarios: desde trenes de alta velocidad hasta tranvías, y es especialista en soluciones para cada cliente.

En el segmento de metro destacan los nuevos metros automáticos para Metro Glasgow, vehículos para Metro Berlin, Merseytravel (Liverpool) o Metro Valencia, que responden a demandas muy específicas, a las que Stadler ha dado soluciones innovadoras y fiables.

Stadler lidera en Europa el segmento de los **trenes-tram** con su plataforma Citylink capaz de circular por líneas hasta 100 km/h como por la red tranviaria del centro de ciudades como Karlsruhe o Chemnitz en Alemania.

Además las diferentes plataformas de **tranvía y metro ligero**, Tramlink, Variobahn, Tango y Metelitza, responden a los retos de movilidad con soluciones innovadoras adaptadas a las necesidades de cada cliente y con altos estándares de seguridad, confort y accesibilidad. Ejemplo: Tramlink Santos (Brasil), primer LRV multi-articulado 100% piso bajo en operación en Latinoamérica.

Tailor-made solutions for urban transport

Stadler provides a comprehensive range of products in the heavy and urban transport segments: From high-speed trains to trams. Furthermore, Stadler is specialists in developing solutions tailored to the needs of each customer.

In the metro segment, the highlights are: the new driverless-metro for Glasgow, the new vehicles for Metro Berlin, for Merseytravel (Liverpool) or for Metro Valencia. All these contracts respond to very specific demands and requirements to which Stadler has been able to give an innovative and reliable solution.

Stadler has become European leader supplier of tram-trains with its Citylink platform that is able to operate on existing suburban infrastructure at speeds of up to 100 km/h and on inner-city networks as a tramway. Examples: Karlsruhe and Chemnitz in Germany.

Besides, the different Stadler´s LRV families, Tramlink, Variobahn, Tango and Metelitza, meet the challenges of mobility with innovative solutions adapted to the needs of each client and with high standards of safety, comfort and accessibility. Example: Tramlink Santos, the first multi-articulated 100% low-floor LRV in operation in Latin America.

www.stadler.com

Tecnatom

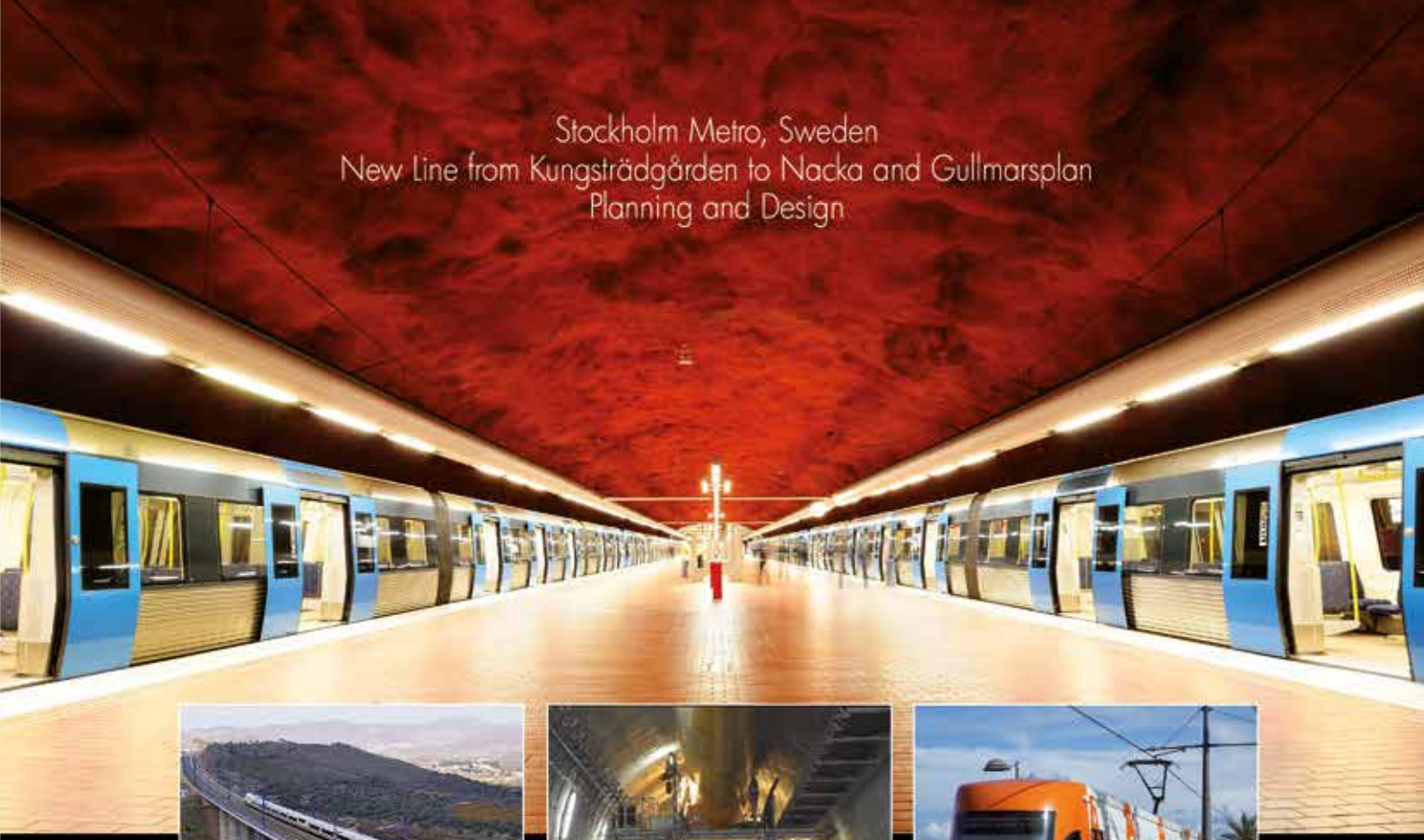
Tecnatom Group is a private engineering corporation, established in 1957, just 60 years ago, and specialized in the development of advanced systems for automated Non Destructive Testing (NDT). Tecnatom Group has maintained a constant growth, internationalizing its activity and currently has subsidiaries in France: Metalscan and M2M, together with branches in Brazil, China, United Arab Emirates, Mexico or the USA.

Originally engaged with Nuclear Sector, with the design and maintenance of Nuclear Power Plants, Tecnatom Group has opened its technology first to the Aerospace -becoming a worldwide company- and later in the Industrial and Railway sectors Railway Industry, providing NDT state-of-the-art solutions.

Tecnatom Group's railway solutions portfolio focuses on the inspection of rolling stock, both in the process of manufacturing the railway components and in the in-service maintenance tasks. The mentioned solutions include automated systems for inspection of wheels, both solid and elastic; axles, hollow and solid, and rail.

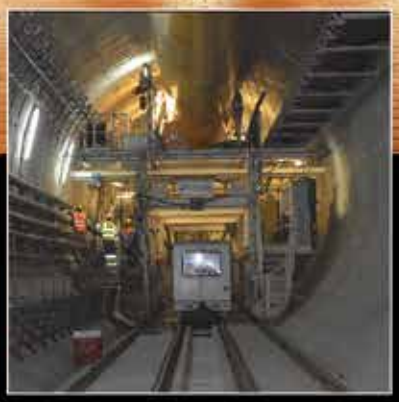
The intensive use of Phased Array technologies, together with advanced flaw detection and evaluation algorithms, ensures maximum performance and a remarkable increase in productivity. These systems, unlike manual inspections, add traceability to the process and make it possible to audit the results of the inspections.

Recent activities in the rail sector include the provision of an automated wheels inspection system for the Chinese company Masteel, the world's largest wheel production company. In addition, Tecnatom Group has initiated an important R & D activity, both with an active participation in projects and with its own internal activities, being remarkable the development of a new system for in-service inspection of solid axes, combining a cutting edge technology with a particularly simple operation and low cost equipment.



Stockholm Metro, Sweden
New Line from Kungsträdgården to Nacka and Gullmarsplan
Planning and Design

Spanish High Speed Network.
Design & Construction Supervision Services



Riyadh Metro. Lines 4, 5 & 6.
Preliminary and Detailed Design

Alicante Tram Line 2.
Detailed Design

TYPSA, major contributions to major achievements

- 50 years designing railways, metros and tramways
- Leader in metropolitan urban transport
- Expertise in high speed and conventional rail
- Knowledge, experience, technical capability and independence
- Exporting Spanish engineering around the world

TYPSA 50 aniversario 1966-2016

www.typsa.com

Thales

Soluciones de señalización urbanas

CBTC (Control de trenes basado en las comunicaciones). Thales fue pionero en su desarrollo en los 80 y hoy ofrece su CBTC Sef TrackTM. Libre de limitaciones de cantón fijo, permite desplazar más personas a más velocidad sin comprometer la seguridad. Self TrackTM consume un 15% menos de energía, adaptable a todas las demandas y con costes de vida útil y mantenimiento optimizados.

Sistemas de control de ruta. Los sistemas de enclavamiento electrónico LockTrac ofrecen una operación y gestión segura y fiable de agujas, señales, cruces y otros elementos de la red.

Equipo ferroviario de vía. La familia FieldTrac de equipos de vía incluye contadores de ejes, accionamientos de agujas, señales LED, equipos auxiliares etc.

Sistemas de gestión del tráfico. NetTrac ARAMIS, sistema avanzado de gestión e información de la automatización ferroviaria, aumenta la capacidad de las vías, detecta automáticamente los conflictos, y propone soluciones para gestionar las incidencias.

Señalización a nivel de calle. Soluciones para tranvía y metro ligero que incluyen señalización, prioridad semafórica, localización automática de vehículos y regulación.

Urban signalling solutions

Communications-Based Train Control (CBTC). *Thales literally invented CBTC in the 1980s and today our fully automated, integrated and upgradeable SelTrackTM CBTC continues to lead the industry.*

Freed from the limitations of conventional fixed-block designs, the solution can move more people, more quickly, without compromising safety. SelTrackTM CBTC also has a green configuration that consumes 15% less energy. Built to be flexible, it addresses all of the requirements and with optimised maintenance and life cycle costs.

Route control systems. *Thales LockTrac electronic interlocking systems ensure smooth and safe movements by managing point machines, signals,crossings and other network elements.*

Rail field equipment. *The Thales FieldTrac family of trackside equipment includes axle counters, point machines, LED signals, automatic warning devices and more.*

Traffic management systems. *NetTrac ARAMIS (Advanced Railway Automation Management &Information System) enables putting more trains on existing tracks, which automatically detects conflicts and proposes operational solutions so that any incidents can be quickly managed.*

Street-level signalling. *Thales also provides tailored solutions for tram and light rail networks, including signalling for lines and depots, priority management at road crossings, automatic vehicle localisation and tram reg*

Typsa

TYPSA, 50 years designing railways, metros and tramways

After 50 years working in the field, 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.

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. TYPSA has contributed to more than 500 km of metro lines including 490 stations, and more than 260 km of LRT or tramway lines with 290 stops, located in different countries.

Participation in ***major international projects:***

- *Riyadh Metro, the biggest metro network under construction today, where TYPSA is the designer in the consortium in charge of implementing package 3, lines 4, 5 & 6.*
- *Quito Metro*
- *Sao Paulo Metro Lines 5 and 6*
- *Stockholm Metro extension from Kungsträdgården to Nacka and Gullmarsplan.*
- *Doha Metro Red and Green Lines*
- *Lima Metro Line 2 and Line 4 branch to the airport.*
- *Abu Dhabi Light Rail Transit Network.*
- *Astana light rail network.*

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. TYPSA has also worked on major international projects, such as Madrid - Lisbon HSL, Los Angeles - Las Vegas or Sao Paulo - Rio de Janeiro. Currently, TYPSA is involved in the design of high-speed networks in Sweden and the United Kingdom.

TYPSA has an excellent team of highly specialised professionals, working in every discipline of a railway engineering project, and is constantly evolving to implement the latest technical innovations and acquire new skills.