



OEM Technology Solutions European Expansion

**A fresh face and a new operating company
strengthen OEM's European presence.**

OEM Technology Solutions is excited to announce a significant expansion in its European operations.

Based out of Bordeaux, Georges Couénon has joined the OEM team as an Application/Sales Engineer. An industry veteran, Georges' draws upon over two decades of experience split between technical engineering and Intelligent Transport System (ITS) projects.

Georges has obtained an Electrical Engineering

Degree from the Université Pierre-et-Marie-Curie, as well as a Diploma in Project Management.

His professional life has taken him to numerous countries around the globe, though the bulk of his career has been primarily divided between Australia and his native France.

Georges' wealth of experience coupled with his unique multinational work history makes him the ideal candidate to represent OEM

Technology Solutions as part of its European team.

Georges is not the only new face of OEM in Europe, however.

During a recent business trip to the continent, Managing Director Richard Gobee oversaw the creation of a new German Business. As of July 1st, OEM Technology Solutions GmbH has been formally incorporated.

OEM have a long operational history in Germany and across the broader European region, with Uwe Ruetters acting as a Sales Representative for the company since April 2009.

OEM Technology Solutions GmbH represents the next step in this relationship. As OEM's formal foothold in Europe, it will provide the company with local European commercial, technical and logistics capability, making it



Bordeaux-based Application/Sales Engineer, Georges Couénon, meets the team at OEM headquarters, Sydney.

easier for both OEM and its customers to conduct business.

Contact OEM Technology Solutions GmbH by sending an email to saleseurope@oem.net.au or by calling the office on +49 (0) 8641 6994933. Alternatively, visit Stand 306, Hall 6.2 September 18th-21st to meet the OEM team at InnoTrans 2018.

OEM has delivered over 10,000 systems via 40 railway projects in Europe alone. And the future looks brighter still.

Managing Director, Richard Gobee (left), at the incorporation of OEM Technology Solutions GmbH.



Wireless Train Communications Backbone Breathes Life Into Older Fleets

OEM Technology Solutions develops innovative communications technology, bringing the latest in connectivity to a generation of aging rolling stock.

One of the most daunting dilemmas posed by the rapid rate of modern technological advancement is actually implementing these new innovations into our daily lives. It is neither economically nor environmentally feasible to replace the infrastructure of our day-to-day life each time the latest update is released.

More often than not, finding a means to graft these exciting new creations onto existing technology requires as much ingenuity as the actual invention itself. These retrofits, while often overlooked, are a vital step in bringing the technology of tomorrow to today's customers.

The rail industry is a pertinent example of both the need for retrofits and the value they can provide for both operators and passengers.

OEM Technology Solutions are veterans of the rail industry. Leveraging their team of experienced engineers, as well as their own range of award-winning



OEM's retrofits bring essential upgrades to older rolling stock.

technological innovations, such as the PC3 Series Programmable Controllers, OEM are equipped to develop the solutions needed to bring the latest innovations to rail operators and passengers alike.

The Wireless Train Communications Backbone, OEM's most recent retrofit technology, exemplifies this.

Modern rolling stock has come a long way since

the days of the steam locomotive. A host of subsystems operate behind the scenes, controlling and monitoring brakes, doors, air conditioning, wheel degradation and much more.

This complex array of electronics is coordinated by a Train Control and Management System (TCMS) which provides personnel with the means to control subsystems on the train,

and operators the ability to monitor the fleet's condition. This improves both passenger safety, by reducing the risk of an unexpected failure, and increases the efficiency of any maintenance by allowing technicians to troubleshoot with pinpoint accuracy.

Unfortunately, certain on-train infrastructure is required to run a TCMS. As a result, older fleets or those that operate in

Revitalised Range Of Rugged & Reliable Remote I/O Modules

OEM Technology Solutions' IO3130 & IO3410 modules have been enhanced to allow direct interfacing to high inrush current contactors for 72Vdc and 110Vdc.

The IO3130 and IO3410 units are the latest update to OEM Technology Solutions' series of I/O modules.

Designed to endure the conditions of the railways, the IO3130 and IO3410 modules have been specifically developed with resistance to short circuiting and high inrush currents in mind. Both boards have undergone

an architectural redesign and are capable of directly interfacing to a large range of 72Vdc and 110Vdc contactors. As such, both I/O boards are capable of handling high inrush current without compromising their functionality.

In addition, both the IO3130 and the IO3410 modules are shock and vibration resistant in



accordance with EN 50155 regulations.

The IO3130 module features 12 Digital Outputs, whilst the IO3410 module is equipped with 8 Digital Inputs and 8 Digital Outputs. These Inputs and Outputs are self-resetting, short circuit protected and galvanically isolated from the I/O Bus and adjacent modules. Both the IO3130 and the IO3410 modules are suitable for

nominal battery voltages of 72Vdc or 110Vdc.

Both IO modules can be incorporated into OEM's PC3 Series of Programmable Controllers and are programmable in "C" or any of the IEC 61131-3 languages. They are ideal for a range of rail-related applications, including Condition Based Monitoring (CBM), Remote I/O and Subsystem Control and Monitoring.



Visit OEM Technology Solutions At InnoTrans 2018, Stand 306, Hall 6.2

Held biennially at the Berlin exhibition grounds, InnoTrans is the world's largest rail trade show. The event runs from the 18th to the 21st of September and attracts the biggest names in the railway industry from around the globe.

OEM Technology Solutions will be out in force, with CEO James Mcleod and Managing Director Richard Gobebe attending alongside

European Sales Representative, Uwe Ruttgers and Application/Sales Engineer Georges Couénon.

The OEM team will be displaying the latest in Programmable Controllers,

communications gateways and remote I/O units, as well as the rugged railbox that forms the core of OEM's Wireless Train Communications Backbone.

OEM Technology Solutions can be found at

Stand 306 in Hall 6.2, from the 18th to the 21st of September.

Drop by the OEM booth to see the future of the railway industry and to discuss how OEM Technology Solutions can make your vision a reality.



OEM Technology Solutions' Innovation Provides Crucial Safety & Efficiency Upgrades

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conditions where attaching additional cabling would be impossible were simply consigned to obsolescence – kept in service but running at suboptimal levels of safety or efficiency.

Fortunately, the Wireless Train Communications Backbone (WTCB) developed by OEM Technology Solutions has overcome these limitations

The WTCB is installed into each carriage in a trainset and is comprised of a pair of Wi-Fi antennas, one at each end of the car. Each car links with the next, forming a virtual ethernet

backbone that runs the length of the train.

This backbone provides a reliable communications network that is completely cable-free between cars, capable of running a TCMS and the numerous subsystems that modern rolling stock require.

The wireless nature of the WTCB is supported by a number of intelligent system features developed by OEM.

An auto configuration function allows an individual carriage to detect its specific position within the network and configure itself accordingly, making swapping cars out for



OEM's Selective Door Opening (SDO) Unit is an example of a subsystem that utilises the WTCB.

maintenance a seamless process.

The Smart Redundant Carriage Coupling (SRCC) system works as an extension of this, allowing networks to detect one another and merge together as needed. As such, a train set can be extended with ease – and without compromising the effectiveness of the subsystems operating off of the wireless network.

OEM Technology Solutions' Wireless Train Communications Backbone is a gateway - an innovative solution that bridges the gulf that lies between the sturdy technology of yesteryear, and the crucial safety and efficiency developments of the present. The union is both cheaper to produce and quicker to market, allowing operators and passengers to benefit from the technology of tomorrow, today.

Virtual Ethernet Network

A virtual Ethernet network is established between cars and between sets using the IEEE 802.11 wireless technology.



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