

Alstom presents its innovations at TRAKO 2021:

Automatic Train Operations, Traxx DC3 locomotive and worldfirst hydrogen train Coradia iLint

22 September 2021 – Alstom, global leader in smart, sustainable mobility and the biggest manufacturer in the railway industry in Poland, presents the company's innovations and their increased footprint in Poland at the 14th International Railway Fair TRAKO 2021.

TRAKO is the largest and most prestigious rail industry meeting in Poland and one of the largest in Central and Eastern Europe, covering the state-of-the-art solutions in transport systems and railway infrastructure in Poland, Europe and around the world.

During the fair, Alstom presents mobility solutions that underpin the low-carbon transport of the future, including the world's first hydrogen train proven in commercial traffic, the Coradia iLint, the Traxx DC₃ electric locomotive and the benefits of Automatic Train Operation (ATO). Alstom has also prepared a special booth area and event dedicated to the increased potential and impact of the new Alstom, as well as to the company's 180 years of industrial heritage in Poland.

"This year's TRAKO fair is not only a European railway event, but above all a unique opportunity to engage with our customers in person. We want to introduce our customers and business partners to the comprehensive offer of the new Alstom. It will also be a unique opportunity for our guests to board the world's first hydrogen train Coradia iLint and modern Traxx DC3 locomotive. Alstom has the know-how, the resources and the production capacity to meet the needs of high-speed and hydrogen trains, tramways, new metro trains and traffic control systems. During the fair, we want to show that most of the solutions are at hand and can be designed and produced in Poland," said Artur Fryczkowski, Sales and Business Development Director Alstom in Poland, Ukraine and Baltic States.

Alstom's booth at TRAKO 2021 is organised around three areas: new Alstom in Poland corner, rolling stock corner, with Coradia iLint and Traxx DC3 exhibited on TRAKO's tracks and signalling solutions.

New Alstom in Poland

Alstom is a company with Polish roots dating back to the first half of the 19th century. It draws on the rich industrial heritage of its plants: 180 years of Pafawag in Wrocław, 150 years of Konstal in Chorzów and 100 years of ZWUS in Katowice. Over the last 25 years, Alstom has invested 300 million euro to develop its sites, hence supporting the development of the Polish transportation industry. Today, Alstom is the largest producer and exporter in the railway industry in Poland with more than 4,000 people working at 11 Polish sites. Alstom's broad scope of activities includes manufacturing of passenger trains, car bodies for locomotives, regional passenger trains, highspeed trains, production and assembly of bogies, design and manufacturing of rail traffic control and management systems, production of electrical equipment and maintenance services for rail vehicles and rail traffic control systems.

Alstom is a leader and pioneer in innovation: the company has introduced the first high-speed Pendolino trains and implemented the first European Rail Traffic Management System (ERTMS) Level 2 in Poland. 20 Pendolino trains travel 21 thousand kilometres every day, reaching 34 Polish



cities. Moreover, 100 modern Traxx locomotives are used in Poland by passenger and freight operators. Twindexx double-deck trains are operated in Poland by Koleje Mazowieckie and lowfloor Flexity tramways improve urban transport in Kraków, Gdańsk and Łódź. Last but not least, Alstom metro cars make up 25% of the Warsaw Metro fleet and most of the main railway lines in Poland. The 1st and 2nd lines of the Warsaw Metro and eight Polish cities use signalling designed and produced by Alstom.

Alstom's rolling stock innovations: The Hydrogen Coradia iLint and Traxx DC3 locomotive

The world's first and only hydrogen train proven in commercial passenger service – Coradia iLint – is quiet and completely emission-free, emits only water vapor and condensation. Replacing diesel traction with fuel cell technology allows for completely clean train operation, with a performance matching that of regular diesel multiple units. That means the Coradia iLint can operate on the same timetable as the diesel ones, the same top speed of 140 km/h and has comparable acceleration and braking performance. Likewise, passenger capacity can reach 300 passengers and the train has a range of 1,000 kilometres on a single refuelling. The Coradia iLint has been proven in commercial passenger traffic in Germany and tested in Austria and the Netherlands.

Traxx DC₃ locomotive with Last Mile feature belongs to the new generation of Traxx locomotives, the most modern platform of four-axle locomotives in Europe. It covers all mainline applications under 3 kV DC catenaries. The Traxx DC₃ locomotive bridges non-electrified areas like railway sidings and terminals, which means that it makes new logistic concepts possible. As a result of its improved tractive effort and its sophisticated adhesion control, it allows higher train loads than comparable locomotives. With the highest traction chain efficiency and intelligent energy management, the new generation of Traxx locomotives is consistently designed to reduce energy consumption.

Traxx locomotives are the most wide-spread ones in Europe, authorised in 20 countries and covering over 300 million km of tracks each year. Proven in a multitude of different applications, they meet the high expectations of operators in terms of reliability, availability and maintainability, as well as low operating costs.

Alstom the leading company for signalling solutions in Poland

Alstom is a market leader for innovative digital mobility. To address traffic congestion, environmental concerns and urbanisation in the coming decades around the world, Alstom has excelled in bringing systems and products to its customers, connecting products like trains, metros and infrastructure with the digital means for tomorrow, increasing passenger volume.

Alstom in Poland is a leader of signalling solutions with 100 years of railway signalling experience and more than 200 conventional computerized interlocking systems, over 100 ETCS¹ on-board equipment systems, 30 Central Traffic Controls, over 700 line block systems, more than 1,700 level crossing systems and security, as well as Automatic Train Control for metro traffic in Warsaw.

Alstom's ERTMS level 2 was implemented on nine Polish lines (Two sections E30, E59, E65, E75, CMK, L227, L278 and PKM).

¹ European Train Control System



Alstom is a leader of railway automation. During TRAKO 2021, Alstom will demonstrate the ATO features by showing its measure of performance (stopping accuracy, adherence to timetable and efficient use of energy).

Rail Automation is commonplace in closed railway systems; for example, Metros, Automatic People Movers (APM) and Monorails have been around for decades. In mainline rail operations, automated driving is now being recognized as a way to create more reliable, affordable and fluent networks. With more than 70 driverless metro references and test beds on mainlines already running, Alstom is well positioned to answer to tomorrow's autonomous mobility challenges.

Autonomous trains will change how people and goods move, contribute to people's well-being and a climate neutral continent. This is Alstom's commitment to the European Green Deal and contribution to the European Sustainable and Smart Mobility Strategy. Alstom's trains will change the playing field for mobility - making rail operations even more competitive.

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Alstom Leading societies to a low carbon future, Alstom develops and markets mobility solutions that provide the sustainable foundations for the future of transportation. Alstom's product portfolio ranges from high-speed trains, metros, monorail and trams to integrated systems, customised services, infrastructure, signalling and digital mobility solutions. Alstom has 150,000 vehicles in commercial service worldwide. With Bombardier Transportation joining Alstom on January 29, 2021, the enlarged Group's combined proforma revenue amounts to €14 billion for the 12-month period ended March 31, 2021. Headquartered in France, Alstom is now present in 70 countries and employs more than 70,000 people. www.alstom.com

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