Winners of the ERCI Innovation Awards 2021

Best Small and Medium Enterprise: PJ Monitoring GmbH (PJM)

Best Large Enterprise: Bozankaya Oto. Mak. İml. İth.ve İhr. A.Ş.

Coup de Cœur Winners:

Everysens
PANTOhealth GmbH
Te.Si.Fer. Srl

On Tuesday 26 October 2021, during the SIFER Expo at Lille Grand Palais, the European Railway Clusters Initiative (ERCI) awarded prizes to the best European innovations in the railway industry from those companies who submitted applications to the annual ERCI Railway Innovation Competition. The competition identifies the best innovation from Large Enterprises as well as deciding on the best innovation from the Small and Medium Enterprise (SME) nominations.

The competition also identifies 'Coup de Cœur' awards from the remaining SME nominations where the jury identified particularly strong nominations that were worthy of special recognition.

It goes without saying, that without any nominations, there could not be a competition and all 23 nominations and their parent railway clusters are to be commended on submitting the nominations under particularly challenging circumstances. Encouragingly, the submissions for 2021 amounted to a significant increase on the previous year's submissions.

Given there are some early signs of recovery from the global COVID pandemic, it has been particularly rewarding to be able to stage this year's ceremony as an 'in person' event during the SIFER 2021 Expo at the Lille Grand Palais, Lille, France.

We are most grateful to Mr Abdelkrim Talaalout, Head of the Autonomous Train Program at RAILENIUM for his most valuable contribution as Chairperson of the ERCI Railway Innovation Competition Jury and for presenting the awards during the ERCI Innovation Awards Ceremony.

The 2021 ERCI Innovation Awards

The 23 participating companies have had their submissions assessed by a European Jury composed of railway experts from Austria, Belgium, France, Germany, Italy, Poland, Spain, Sweden, Turkey and the United Kingdom. The following companies have been presented with their ERCI Innovation Awards:

Best Small and Medium Enterprise:

PJ Monitoring (PJM) GmbH with their innovative 'Waggon Tracker'. PJM are based in Austria and are members of the ACstyria Railway Cluster

Company: PJM is an internationally renowned specialist in the field of railway systems. Based in Austria, PJM is a technology leader for a wide range of forward-looking solutions and railway automation.

Website: www.pjm.co.at

Innovation: The WaggonTracker is a platform which combines monitoring and automation; PJM has designed a robust overall system which is also very efficient; moreover, it provides automated processes plus crucial information about the vehicle fleet in real-time.

Advantages: It is the only system worldwide providing a range of automation features including monitoring and automation functionalities; it is a proven and patented system which is manufactured in series-production; it is the only digital wagon backbone which facilitates the integration and connection of all wagons' components such as couplers, brakes etc

Best Large Enterprise:

Bozankaya with their innovative 'Bozankaya Battery Tram'. Bozankaya are based in Turkey and are members of the ARUS Railway Cluster

Company: Bozankaya was founded in 1989 in Germany as an R&D company. In 2003, the company expanded to Turkey, where it became a powerful domestic brand, building on its R&D investments of the previous years. The company has a strong track record as an innovator in developing and manufacturing environmentally friendly, energy saving, low-noise vehicles, offering clients an advantageous combination of attractive investment and operating cost.

Website: www.bozankaya.com

Innovation: With the high voltage battery application integrated into the tram drive system, catenary-free drive is provided; due to this battery concept based on Lithium-ion chemistry, it is possible to drive 63 km without a catenary under normal operating conditions.

Advantages: Savings in Overhead Line Electrification (OLE) investment; savings in infrastructure maintenance and servicing costs; provides an aesthetic electrification solution and prevents visual pollution

Coup de Cœur Awards:

Everysens with their innovation 'TVMS'. Everysens are based in France and are members of the iTrans railway cluster

Company: IoT, AI and Big Data technologies are only means to an end, these technologies must be put at the service of human beings to handle industrial use cases and allow their necessary return on investment. This approach is at the heart of Everysens' DNA.

Website: www.everysens.com

Innovation: Everysens offers the first Transport Visibility & Management System (TVMS) that integrates field visibility data deep into your transport processes. The system enables the purchase, planning, tracking and optimising in real time of all your Supply Chain flows on a collaborative and predictive platform.

Advantages: Better customer service in terms of planning and visibility; cost reductions of 10-20% with control over resources and purchases; operational excellence through automation of the processes for all actors in the rail and road logistics chains; reduced carbon footprint based on real data from the field and by promoting intermodal transport.

PANTOhealth GmbH with their innovation 'Predictive Maintenance via Real & Synthetic Data'. PANTOhealth are based in Germany and are members of the Transport, Mobility and Logistics cluster Berlin-Brandenburg

Company: PANTOhealth combines Simulation and IIoT and Predictive Analytic methods to deliver real-time monitoring and predictive maintenance reports for railway infrastructures.

Website: www.pantohealth.com

Innovation: The PANTOhealth mathematical model using the collected data from monitoring hardware can estimate meaningful data that directly determines the condition of the monitored system. Additionally, the simulation engine, based on the mathematical model, can generate labelled synthetic data to train the AI engine.

Advantages: The prediction of the failure is faster, with higher accuracy; the mathematical model helps to estimate some essential parameters based on monitoring parameters; the monitoring hardware is comprehensive and can collect data continuously.

Te.Si.Fer Srl with their innovation 'SmartTrack'. Te.Si.Fer Srl are based in Italy and are members of the DITECFER railway cluster

Company: For more than 15 years, Te.Si.Fer has specialised in the design of signalling and telecommunication plants for railways, subways and tramways with worldwide experience in every phase from initial survey through to commissioning.

Innovation: The SmartTrack software platform collects data, from any type of survey, and manages all the digitalized railway information to obtain a unique database. The solution was developed to answer three major challenges affecting the design, installation and management of signalling systems, including ERTMS.

Website: www.tesifer.it

Advantages: Time and cost reduction in all railway design phases; storing of data used in the continuous maintenance of ERTMS and railway infrastructure; delivering digital-native data transcoded into a unique format – based on the European RailML® Standard

Many thanks to the ERCI Railway Innovation Competition team for all their hard work and all the companies which participated this year and we look forward to seeing you in 2022 for a new edition of the ERCI Innovation Awards!

Notes for Editors: This information is embargoed until 1700hrs CEST on 26 October 2021

ABOUT ERCI - European Railway Clusters Initiative

Founded in 2010, ERCI is the only railway meta-cluster network in Europe. The ERCI includes 16 major research and innovation driven railway clusters and represents over 2000 SMEs in 17 European countries.

The primary objective of the ERCI is to reinforce the competitiveness of the European rail industry through cooperation between large companies, SMEs and research institutes on close-to-market innovation projects.

Website: www.eurailclusters.com

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