



4-7 JUNE

BARCELONA 2023

**GLOBAL PUBLIC
TRANSPORT SUMMIT**

LATEST SOLUTIONS FOR SAFETY ISSUES AND CYBER THREATS

INNOVATION GUIDED TOURS

Monday 5 June, 11:30 - 12:30

In this tour participants will discover a broad range of digital solutions to increase safety in public transport operations by preparing mobility systems against cyber threats. From equipment and monitoring systems, to safeguarding

the wellbeing of passengers and drivers, all the way to solutions securing public transport infrastructure and operations from cyber threats: this tour will offer solutions to the crucial questions.



CYLUS



Cervello Ltd.

The Cervello Platform – Rail Cybersecurity

Cervello accelerates rail digital transformation by securing the railroad industry's rolling stock, signaling and operations from cyber threats with a purpose-built platform for rail cybersecurity. Cervello automates the discovery and mitigation of vulnerabilities and threats throughout a rail organization, enabling its regulatory compliance. By using passive monitoring based on zero-trust technology, rail teams receive full visualization of their networks in one dashboard.

Our technology 'translates' cyber risk to rail managers on the operational and safety impact on specific services, operations, safety, location, damage, or any other potential disruption. Cervello's platform and dashboard are configurable for rail managers to customize it easily according to their operational needs. Its flexible architecture makes for easy and fast deployment and integration into all systems and software. Deployment is possible on-premise or cloud-based.



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Hayden AI

Automated Bus Enforcement

Artificial Intelligence (AI) has the power to transform transit operations and performance, reducing costs for agencies and improving safety and accessibility for riders. Major U.S. transit agencies use Hayden AI's perception system to keep their bus lanes clear, which helps speed up transit and allows riders to quickly reach their destinations. Hayden AI has also deployed bus stop enforcement to enable agencies to keep bus stops clear for all riders at each stop.

Our platform is a purpose-built, mobile perception system that captures and analyzes valuable images and data. It includes:

- Cameras to capture images,
- An edge processor to interpret and process those images, and
- Software that applies AI on the edge and powers our analytics portal.

The data can also be applied to use cases outside of automated enforcement, such as:

- Advanced data analytics,
- Asset management, and
- Digital twins.



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MASATS S.A.

PASD Platform Adaptable Screen Doors + Gap Filler GF1

The PASD concept of a revolutionary platform barrier system. The system is completely flexible and allows the creation of the door opening at the necessary point along the platform right in front of the corresponding train door.

This enables the line operator to provide service in interoperable platforms using trains of different composition with different number of doors and/or different door pitch.

The system consists of panels aligned at the platform edge capable of moving in both directions. The PASD doors open automatically on the train's stop position, without the need to pre-position the movable panels.

In the stand Masats will show a full-scale, half-height PASD.

To get maximal safety, It can also be combined with a Masats Gap Filler, which will also be on display at the stand. A device that is placed in the station infrastructure, to cover the gap between train and platform, and that works in coordination with the PASD, or can be placed independently, without barriers.



Polis Karatzas

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Waterfall Security Solutions

Unidirectional Security Gateway Product: WF-500, WF-600

Waterfall Unidirectional Gateway enables safe IT/OT integration, secure remote access, and real-time industrial network monitoring. The gateways replace one layer of firewalls in an industrial network environment, providing industrial control systems with absolute protection from targeted attacks, secure enterprise-wide visibility and safe remote access.

To further emphasize the importance of Unidirectional Gateways in the reference architectures of rail transport designs, the IEC 62443 and the TS 50701 standards have recommended that Unidirectional Gateways be deployed at the critical segmentation boundaries between secure operational networks and non-secure networks.



Christopher Crawford

Transportation Industry Director

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Cylus

CylusOne

In an increasingly digitized industry, the CylusOne Rail Tech Security Platform ensures the protection of rail tech environments from cyber threats while providing uninterrupted and dependable operations. The solution was designed to provide rail-specific security and complete real-time visibility of assets, security posture, and vulnerabilities, granting full control over the rail tech environment. CylusOne ensures threat protection and provides customized, rail-specific mitigation guidance to the cybersecurity and rail operations teams in case of any detected events, including possible rail safety breaches.

The CylusOne platform offers continuous cyber and safety threat detection, helping customers comply with the latest frameworks worldwide to achieve safe and resilient operations. CylusOne is the leading rail-specific cybersecurity solution dedicated to providing the necessary tools to protect rail companies' networks and operations from cyber threats.



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TRAMVIA METROPOLITÀ S.A

Monitoring system for driving personnel

TRAM has implemented an innovative system on all its trams to monitor the driving staff, safeguarding the wellbeing of the tram team and riders. This technology is able to detect if the person driving is suffering from any impairment which, if not detected in time, could lead to an accident.

Through a complex facial-recognition system, a camera installed in the driving cabin can detect when a driver is tired or distracted. If the system detects an anomaly, it gives a visual warning on a small screen and sounds an alarm to get the driver's attention. It also notifies the TRAM Control Centre and, if they think it is necessary, an operator contacts the cabin to see if the driver is okay or needs to be relieved.

The driver-monitoring system has been implemented in all 41 vehicles, making TRAM the first rail system in the European Union to use this technology.



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