# OLD ROADS, NEW TECHNOLOGIES



safe and intelligent road asset management

Heron

Roads are the lifeblood of today's society and economy—for daily commuting, weekend getaways and the smooth transport of goods. But Europe's roads are old. To safeguard their future by monitoring and maintaining their condition in ways that support public and road-worker safety, the EU-funded projects OMICRON and InfraROB have developed various intelligent road asset management solutions. These will be showcased in a one-day, free-of-charge conference. We welcome representatives of transport authorities, road operators, construction companies, engineering and material supplier companies, research entities, associations, policymakers, media, and anyone interested in finding out more.

# **COME AND JOIN US!**

16/01/2025 | 09:00–18:00 CET | Colegio de Ingenieros de CCP | Madrid, Spain

**#SmartRoads** 

# **Old Roads, New Technologies**

This collaborative event 'Old Roads, New Technologies: safe and intelligent road asset management' will explore five key themes:

- Digital inspection technologies
- Smart construction
- Predictive maintenance
- Smart intervention
- Safe intervention

Organised by EU-funded 'sister-projects' OMICRON and InfraROB, the event will also feature HERON project, highlighting mutual areas of focus, results and benefits. Partners and guests will discuss developments, bigger-picture challenges and next steps for Europe's roads.

## Why take part?

'Old Roads, New Technologies' will be the final event of the OMICRON and InfraROB projects. The day will include opportunities to:

- network with experts from the projects and audience, all kinds of players in Europe's road sectors and value chains;
- get direct information and follow-up on solutions presented in sessions & exhibits;
- contribute your views and help set the agenda for future collaboration and developments in the relevant sectors;
- experience the historic heart of Madrid venue, the College of Engineers for Roads, Canals and Ports.

# **REGISTER NOW!**

Free of charge | Face-to-face | Limited space available | Register by 9/1/2025

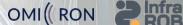
For registration, up-to-date information, the agenda & any queries, scan the QR code.





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# **Final AGENDA**

08:30-09:00 Arrival & on-site registration

09:00–09:25 Welcome & Introduction | Event Host: Noemi Jimenez Redondo, CEMOSA

Setting the scene | Noemi Jiménez Redondo, CEMOSA

Introducing InfraROB & OMICRON | Pedro Arias Sánchez, University of Vigo & José Solís Hernández, CEMOSA

Roads - the EU and research perspective | Claudia Ciuca, CINEA

Roads - the Spanish perspective | Alejandro Lanuza, Spanish Road Directorate, Ministry of Transport (DGC)

SESSION 1 - Smart Construction | Moderator: Esther Madrigal, ACCIONA Concesiones (HERON) 09:25-09:50

All-in-one multifunctional pre-cast concrete element | Edoardo Segú, Nuova Tesi System (InfraROB)

Modular hybrid bridges | Rita Moura, Teixeira Duarte (OMICRON)

SESSION 2 - Digital Inspection and Monitoring Technologies | Moderator: Fabrizio Federizi, AISCAT 09:50-10:35 (OMICRON)

UAV inspection of roads and critical assets | Anibal Ollero, University of Seville & Javier Curado, CATEC (OMICRON)

PointPix pavement inspection system | Alwyn Mathew, University of Cambridge (OMICRON)

Fibre-optic sensors | Celina Solari, RINA Consulting (InfraROB)

#### -11:05 Coffee Break

### 11:05–12:15 SESSION 3 - Predictive maintenance | Moderator: Federico di Gennaro, Autostrade per l'Italia (OMICRON)

Pavement management system | José C. Matos, University of Minho (InfraROB)

**Digital Twin & BIM applications** | Saimir Osmani, RINA Consulting (InfraROB)

Data Collection and Management from multiple data sources for PMS feeding | David Lago, Ingeniería Insitu (InfraROB)

OMICRON's Digital Twin | Balászs Némedi, Régens & Nuria García de Villa, Prointec / Indra (OMICRON)

CEMBOX Digital Twin & decision support tool: bridges; pavements | Paula López & Israel Hernández, CEMOSA (OMICRON)

Decision support system: maintenance; planning | Muhammad Tabish Bilal, University of Genoa (OMICRON)

12:15-12:45 PANEL: From smart construction to predictive maintenance | Moderator: Jia Liu, TU Darmstadt (InfraROB)

**PANELLISTS** Nikos Bakalos, ICCS (HERON) Javier Prego, Extraco Anibal Ollero, University of Seville (OMICRON)

12:45-12:50 Exhibition teaser - what to see during the lunch break

#### 12: 50-14:20 Networking lunch & exhibition

#### 14:20-15:25 SESSION 5 - Smart intervention | Moderator: Christoph Antony, ASFINAG (InfraROB)

Autonomous interventions: paver | Leandro Harries, TU Darmstadt & Torsten Schönbach, MOBA Mobile Automation (InfraROB)

Autonomous interventions: robots for line painting, crack & pothole repair | Søren Ingwersen, Tiny Mobile Robots & Carlo Polidori, AIPSS (InfraROB)

Smart intervention: VR & AR-supported robotic platform actions | Ander Ansuategi, Tekniker; José Ramon López Pavasal & Themis Anastasiou, LMS University of Patras (OMICRON)

Smart intervention: pavement rehabilitation & maintenance decision support tool | Rafael Martínez, Eiffage (OMICRON)

#### SESSION 6 – Safe intervention | Moderator: Antonio Costa, University of Minho (InfraROB)

Safe intervention: remotely piloted safety cones & aircraft system | Joaquín Martínez, University of Vigo (InfraROB) **V2X communications and road safety** | Martín Rivas, Indra (OMICRON)

Safe intervention: traffic management systems & V2X | Rade Hajdin, Infrastructure Management Consultants & Leonard Hoffmann, ASFINAG (InfraROB)

# 16:05–16:35 Coffee Break

16:35–17:25	PANEL: Future of safe and intelligent road management   Moderator: Jesús Rodríguez, Chair, OMICRON External Advisory Board		
PANELLISTS	Claudia Ciuca, CINEA	Rade Hajdin, IMC	Federico di Gennaro, Autostrade per l'Italia
	Alejandro Lanuza, DGC	(InfraROB) Christian Honeger, ASFINAG (InfraROB)	(OMICRON) Yannis Handanos, Olympia ODOS (HERON)
17:25-17:35	Closing remarks   Pedro Arias-Sánchez, InfraROB & José Solís Hernández, OMICRON		

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