



Dobrodošli v Ljubljani

Welcome to the ICA 4.0

Transportation infrastructure is essential for ensuring the safe and efficient movement of vehicles and people within a given area. In addition to the physical infrastructure itself, it also involves traffic organization, including relevant legislation and trained personnel.



Asphalt is the primary construction material used in transportation infrastructure - from roads and airports to ports and railways. For decades, it has provided safe, comfortable, and dust-free traffic conditions. Moreover, asphalt is an excellent example of a circular economy, as it can be fully reused while maintaining high energy value.

With the rise of the new industrial revolution and the development of technologies such as intelligent transport systems, e-mobility, blockchain, digital twins, and artificial intelligence, the connection between vehicles and transportation infrastructure is becoming increasingly important. Asphalt, which forms the upper layers of road structures, is a key element in this connection. It can serve as an energy storage medium, a platform for communication links, or a foundation for advanced traffic signalling.

When we combine **infrastructure**, **vehicles**, and **users**, we create a powerful synergy for digital transformation in transportation. The asphalt industry is already one of the most digitalised sector in construction, making the future development toward digital transformation an integral part of the **ASPHALT 4.0** concept, which is also the central theme of the **ICA 4.0** International Conference.

In 2022 and 2023, the Spanish Asphalt Association ASEFMA, in collaboration with the Slovenian Asphalt Pavement Association ZAS and with the support of the European Asphalt Pavement Association EAPA, hosted the first and second ICA 4.0 International Conferences in Madrid. We are pleased to announce that the third conference will take place in **September 2024 in Ljubljana**. The strong interest from companies and experts shows that this type of conference provides important opportunities for presenting and implementing new technologies, where we will strive for even greater efficiency in Europe and the practical application of new ideas.

Industry representatives, administration officials, academic institutions, and universities, we warmly welcome you to Ljubljana!

Slovenko Henigman President of ZAS, Slovenian Asphalt Pavement Association

25
Professional Papers
from 8
Different Countries

www.zdruzenje-zas.si www.ica4point0.com





PROGRAM

9:00 - 10:00	OPENING SESSION			
ZAS	•		SLOVENKO HENIGMAN , President of ZAS, Slovenian Asphalt Pavement Association	
ASEFMA	€		JUAN JOSÉ POTTI , President of ASEFMA, Spanish Asphalt Pavement Association	
EAPA			RALF POMP , President of EAPA, European Asphalt Pavement Association	
MzI	•		ANDREJ RAJH, State Secretary at Ministry for Infrastructure	
			IMANOL GARCÍA, Innovation Expert at the Ministry	
MTMS	MTMS 👛	3	of Transport and Sustainable Mobility of Spain Implementation of Sustainable Pavement Solutions within the Spanish National Road Administration	

10:00 - 10:15 💬 Break

Intelligent Transport System (C-ITS) & Cooperative, Connected and Automated Mobility (CCAM) Moderator: Ulrich Zorin				
DARS	•		Ulrich Zorin	Motorway of the Future
SIMETRIA GROUP	<u> </u>		Aida Marzá Beltrán	Review of the Application of New Technologies for Road Pavement Condition Monitoring
XOUBA Spain	<u> å</u>		Miguel A. Muñoz	Continuous Road Network Monitoring Using Connected Vehicle Data
FEHRL		9	Thierry Goger	AUGMENTED CCAM project. Augmenting and Evaluating the Physical and Digital Infrastructure for CCAM Deployment





Project Design, Digital Twins and Digitalization (Artificial Intelligence) © 11:45 – 13:15 Moderator: Juan José Potti				
INFRATEST	-	Ersun Görener	Digitalization in Asphalt Road Construction. Special Features, Possibilities, Limitations	
Partner in solution	= [Natascha Poeran	A Fundamental Framework for Data-driven, functional Validation of Pavement Performance	
DARS		Jaka Gorišek	Digitalisation of DARS Road Infrastructure	
Q POINT GROUP	+ (Thomas Leopoldseder	Efficient Asphalt Production through Digital Order, Production, and Delivery Management and the (Multi-) plant Analysis of Process Data from the Plant Control System	
Partner in solution	= [Berwich Sluer	Ontologies, the Beating Heart of Common Data Platforms	

13:15 - 14:30 **Ŷ**₩ Lunch

14:30 – 15:00	INVITED LECTURE	
	ROBERTO NUÑEZ DEL RIO Digitalisation Management and Users Experience	

① 15:00 – 16:30	Technology Suppliers, Market Uptake and Quality control for Innovative Products Moderator: Slovenko Henigman				
IGMAT	Roman Bašelj	Transport of Low Temperature Asphalt with			
TRGOGRAD	Klemen Šobak	Push-Off System			
STRABAG	— Márton Hittner	Logistics Control System for Digital Road Construction			







IGMAT	-	Grega Sever	IQS - Igmat Quality System
INTERCHEM	=	Stephan Harnischfeger	Warm Mix Asphalt with Synthetic Zeolite
PETROL	-	Bojan Kurež	Barje - the Largest and most Modern Petrol's Station

0 17:45 > Departure on a guided tour to Petrol Station Barje Sever and to the National Traffic Management Centre Dragomelj

WEDNESDAY 25 September 2024 ·

Asset Management System and Environment Standards 9:00 - 10:15 Moderator: Breixo Gomez Meijide					
EAPA			Breixo Gomez Meijide	Towards Net zero	
ZAG	•		Rok Vezočnik	Surface-wise Road Geometry Assessment Using Terrestrial Laser Scanning	
XOUBA Spain	<u> </u>		Miguel A. Muñoz	Assessing the Impact of Road Roughness Improvements on Emissions and Fuel Consumption Using Connected Vehicle Data	
ZAG	-		Maja Kreslin (photo), Andrej Anžlin	Development of Digital Bridge Inspection	
CESTEL	•		Martin Hauptman (photo), Matija Mavrič	Distribution of Axle Loads Across Road Networks: a Case Study of Slovenia	

10:15 - 10:30 💩 Short Break

WORKSHOP ~ PRACTICAL EXPERIENCE WITH: PADECASA, XOUBA Spain, QPOINT and DARS

Moderator: Breixo Gomez Meijide





V. ③ 12:15 – 13:45	New Generation of Asphalt Production - Asphalt Laying and Safety at Work Zones. Moderator: Matthias Martus				
MAPRI PROASFALT		Iztok Poljanšek	Digital Support for Asphalt Rollers		
		Primož Petrič			
VENTRACO	_	Bart Helincks	Creating a Bicycle Paradise with Coloured Asphalt		
PADECASA	<u> </u>	Jorge Salas Herranz	Twin Asphalt, a Simulation-based Solution for Improved Hot-mixed Asphalt Production Efficiency		
ZAG	•	Rok Rudolf	Innovative Approaches to Noise Measurement and Enviromental Footprints an Asphalt Pavements		
DARS	-	Zvonko Zavasnik	Work Zones - Necessity and Responsibility		

13:45 - 14:00

× CLOSING OF CONFERENCE ICA 4.0

Lectures and events will be held in English.

REGISTRATION FORM for Conference Participants

at the III. International Conference Asphalt 4.0. Liubliana, Sept. 2024

Registration FORM

Registration Fee:

- a **Non-member of ZAS = 549,00 EUR** including VAT (450,00 EUR + 22% VAT)
- b **Member of ZAS* = 353,80 EUR** including VAT (290,00 EUR + 22% VAT)

The registration fee must be paid by Friday, 13 September 2024.



*Applies to ZAS members with paid membership for the year 2023.





THE HOTEL GRAND HOTEL UNION & EUROSTARS HOTEL

Built in 1905, Grand Hotel Union Eurostars is an iconic establishment that's part of the living history of both Ljubljana and Slovenia. This beautiful, striking building is a prime example of the Vienna Secession style, part of the Art Nouveau movement, and has hosted many personalities from the world of politics, film, music and even royalty over the years, including Queen Elizabeth II.

The hotel's elegant facilities are decorated with care and attention to detail while its spacious bedrooms ensure a comfortable, relaxing stay. There are also plenty of dining options at the Grand Union Café, Atelje Restaurant and Union Restaurant, where guests can enjoy the best Slovenian dishes together with delicious local wines.

A wellness centre, gym, swimming pool with views of Ljubljana Castle, shopping arcade, and the city's largest conference centre complete the hotel's facilities.

Function rooms

Grand Hotel Union Eurostars boasts Ljubljana's largest conference centre, with 3000 m² of multifunctional spaces for hosting all kinds of events, from gala dinners to business lunches. Each year, the hotel organises some 800 events in its function rooms, including the Union Hall, a former ballroom that's a true Art Nouveau masterpiece and can accommodate up to 700 people.



Organization & Program Committee

Slovenko Henigman, Sloman & ZAS Juan José Potti, Asefma Breixo Gomez Meijide, EAPA Sara Pečenik Celestina, Sloman Tadeja Horvat, ZAS Robert Mihelčič, RM design Borut Willenpart, BGR Roman Bašelj, Igmat Vasja Grmek, Pomgrad Darko Kokot, ZAG

Matija Mavrič, Cestel Primož Petrič, Mapri Proasfalt Ulrich Zorin, DARS Meghaa Vandana, EAPA Boris Moškon, BM Promedia



HOTEL UNION LJUBLJANA 24 – 25 SEPTEMBER 2024

EVENT MAJOR SPONSORS









POMGRAD





Event Sponsors

DARS

















SPONSORSHIP

at the III. International Conference Asphalt 4.0, Ljubljana, Sept. 2024

Understanding the importance of company presentations, we have prepared two sponsorship options: Major Sponsor or Sponsor. Both types of sponsorship offer a range of benefits for companies, including 5 or 2 registration fees. Detailed sponsorship options are described in the attached registration form.



Registration FORM:

ADDITIONAL INFORMATION

www.zdruzenje-zas.si

www.ica4point0.com