#ICA4point0

ICA 4.0 INTERNATIONAL CONFERENCE ON ASPHALT 4.0

ZAS and Asefma in collaboration with EAPA,
are pleased **to invite** you to the

INVITATION

III. INTERNATIONAL CONFERENCE ON ASPHALT 4.0

LJUBLJANA • SLOVENIA
24 – 25 SEPTEMBER 2024

Organised by

ZAS

asefma

Supported by EAPA

www.zdruzenje-zas.si
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INTRODUCTION

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

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PROGRAM [Draft]

9:00 – 9:45 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
MITMA		**ANTONIO MURUAIS**, Deputy Director General for Sustainability and Innovation, Ministry of Transport, Mobility and Urban Agenda of Spain
DARS / MzI		DARS / Ministry for Infrastructure

9:45 – 10:00 Break

I. Intelligent Transport System (C-ITS) & Cooperative, Connected and Automated Mobility (CCAM)

10:00 – 11:15 Moderator: **Ulrich Zorin**

DARS		Ulrich Zorin	Motorway of the Future
SIMETRIA GROUP		Francisco José Vea Folch	Review of the Application of New Technologies for Road Pavement Condition Monitoring
XOUBA Spain		Jose Carlos Valdecantos Álvarez	Continuous Road Network Monitoring Using Connected Vehicle Data
FEHRL		Thierry Goger	AUGMENTED CCAM project. Augmenting and Evaluating the Physical and Digital Infrastructure for CCAM Deployment

11:15 – 11:45 Break

II. 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**		Berwich Sluer	Ontologies, the Beating Heart of Common Data Platforms
DARS		Jaka Gorišek	Digitalisation of DARS Road Infrastructure
** Partner in solution**		Natascha Poeran	A Fundamental Framework for Data-driven, functional Validation of Pavement Performance
DEWESoft		Rok Mesar	Advanced Technologies for Bridge Helth Monitoring and Case Studies

13:15 – 14:30 Lunch

14:30 – 15:00 INVITED LECTURE

ROBERTO NUÑEZ DEL RIO
Digitalisation Management and Users Experience

III. Technology Suppliers, Market Uptake and Quality control for Innovative Products

15:00 – 16:30 Moderator: **Slovenko Henigman**

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
IGMAT - FLIEGL - TRGOGRAD		Roman Bašelj	Transport of Low Temperature Asphalt with Push-Off System
		Martin Fliegl	

III.

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	

WEDNESDAY 25 September 2024

IV.

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		Jose Carlos Valdecantos Álvarez	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

10:30 – 11:30 **WORKSHOP ~ PRACTICAL EXPERIENCE WITH:**
PADECASA, XOUBA Spain, QPOINT and DARS
Moderator: **Breixo Gomez**

11:30 – 12:15 Long Break

V.

12:15 – 13:45 **New Generation of Asphalt Production - Asphalt Laying and Safety at Work Zones.**
Moderator: **Matthias Martus**



MAPRI PROASFALT		 Primož Petrič	Digital Support for Asphalt Rollers
VENTRACO		 Bart Helincks	Creating a Bicycle Paradise with Coloured Asphalt
PADECASA		 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, Ljubljana, Sept. 2024

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**.

Registration FORM >

HOTEL UNION LJUBLJANA
24. - 25. 9. 2024





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

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EVENT MAJOR SPONSORS (in progress)

Event Sponsors

Registration FORM >

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.

ADDITIONAL INFORMATION

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

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