International Conference on

Asphalt 4.0

20/21 September

Final programme

Meeting Place (c/Orense 34, Madrid) **Organisers:**





Združenje asfalterjev Slovenije Slovenian Asphalt Pavement Association

Supporting organization:





Asefma and ZAS, in collaboration with EAPA, are pleased to invite you to the "International Conference on Asphalt 4.0" (#ICA4point0) where the latest technologies related to digital transformation of the asphalt paving sector will be presented and analysed.

The "International Conference on Asphalt 4.0" will be held on September 20th and 21st in Madrid, and is a continuity of the initiative Asefma launched on May 11th 2020 in the same city. However, on this occasion the event will expand to broader dimensions to achieve proportions on international scale in line with the thematic area. For this reason, the event will be organised in close collaboration with the working group "Asphalt 4.0" of EAPA, as the driving force of the digitalisation of the our industry.

During the two day duration of the "International Conference on Asphalt 4.0" we will offer all participants the opportunity to increase their knowledge by expert speakers, presentation of technologies and round tables.

The event will be developed under the PDV model (presential+digital+virtual), and can be attended

- Face to face, in Madrid (Spain)
- Digitally, by HD streaming and social media with hashtag #ICA4point0
- Virtually, by means of an application or App, where attendees may interact in real time, follow the conferences and pose questions to the speakers, visit the exhibition area, amongst others

The programme also includes a real exhibition zone and demonstration sessions for state-of-the-art technologies during the afternoon sessions.

We would like to encourage organisations and entities to present their cutting-edge digital technologies that imply any advance which may be considered 4.0 in the asphalt industry.



We are also interested in digital solutions or applications of digital technology which may lead to improving conditions of the workers, our clients and the road users.

The "International Conference on Asphalt 4.0" also seeks to be the ideal setting for R&D&I projects that are being implemented to develop digital solutions to present their advances to the asphalt community. The virtual tool will also offer a space to present projects interactively.

Asefma, ZAS and EAPA seek going one step further to boost our industry by training and attracting young people to our sector. A digital revolution like this will open future working lines to attract young talent to our sector.

We want this "International Conference on Asphalt 4.0" to become the starting point of training and development programmes for future professionals to find their way in this new asphalt industry.

Please check the excellent sponsorship opportunities that will be available for organisations to promote their products and services in a direct and efficient way to the attendees of the event.

Tuesday, 20th September 2022

09:00 Opening Session

- Xavier Flores (Secretary General of Infrastructures of MITMA)
- Juan José Potti (President of Asefma)
- Slovenko Henigman (President of ZAS)
- **09:30 Key lecture** "Digitalisation in the chain value of asphalt paving roads"
 - Miguel Caso (Technical Manager PIARC)
- **10:00 Session 1.** Digitalization: a shared space between road administrations and road contractors *Moderated by Carsten Karcher*

Roundtable: Vision from road administration and industry about Asphalt 4.0 (ZAS, MITMA, EAPA)

- Xavier Flores (MITMA)
- Juan José Potti (EAPA)
- Slovenko Henigman (ZAS)
- e-ticketing, more than just paperless management by José
 Luis Peña
 - Challenges faced in implementation of pavement asset management system on state roads in Slovenia by Mitja Jurgele
 - Q&A
- 11:00 Coffee break

11:45	Session 2. Digitalization and quality control Moderated by José Luis Peña
	 Temperature segregation in asphalt mixture placement by Rok Rošer Determination of RAP's bitumen content in real-time: CAPR Project's view for the near-future by Ana Pinto Risk assessment based on the use of real-time paving and compaction support systems by Natascha Poeran Digitalisation The key to success by Ersun Görener Q&A
13:00	Lunch
14:30	Session 3. Technology suppliers Coordinated by Breixo Gómez
	 Positioning systems on asphalt paving, Leica BIM in paving operations Q&A
15:30	 Asphalt production and laying by Daniel Heuberger, VOLZ Consulting GmbH How to save energy, CO2 and costs with modern transport technology in asphalt construction and installation by Martin Fliegl, Fliegl

- MOBA PPCS paving process control system by Nik Giehl, MOBA
- Digitalisation applied to asphalt plants
- Q&A

e-poster gallery

Wednesday, 21st September 2022

09:00 Key lecture "EAPA actions on Asphalt 4.0"

- Breixo Gómez (Technical Manager EAPA)
- 09:20 Session 4. Digitalization applied to maintenance and use stage of roads Moderated by Juan José Potti
 - Sustainable paving: real time monitoring of CO2 reduction emissions in the manufacture of warm mix asphalt. A real example by Aida Marzá
 - SIMEPU: an efficient integral maintenance system for urban pavements by José Ramón Albert
 - PAV DT: new pavement monitoring system for predictive maintenance by Pilar Peiró
 - Object Type Library (OTL) as a ground truth for building digital twins in construction. An asphalt construction case study by Berwich Sluer
 - Q&A
- **10:35 Roundtable:** Quality control based on classic data and new data from big-data and new technologies. How to merge both sources? (Aleas, Infratest, MOBA)
 - José Luis Peña (Aleas)
 - Ersun Görener (Infratest)
 - Nik Giehl (MOBA)

11:20 Coffee break

11:50 Session 5. New services provided by digitalization Moderated by Slovenko Henigman

- Road safety at job sites, NETUM
- MASAI: sustainable, automated and intelligent asphalt materials by Fernando Moreno, University of Granada
- Digital management of the renovation project at "Nudo Norte" by Lola Ortiz, Madrid City Council
- Digital twins by Alvaro García, University of Nottingham

13:00 Closing session



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