

INTERNATIONAL SEMINAR

8-10 October 2025, Almaty, Kazakhstan

Strategies, Materials and Technologies for Sustainable and Decarbonized Road Construction and Road Maintenance Декарбонизация дорожного строительства и содержания: инновации,

новые технологии и материалы

ORGANIZED BY















OFFICIAL

INTERNATIONAL SEMINAR

Strategies, Materials and Technologies for Sustainable and Decarbonized Road Construction and Road Maintenance

PIARC, the World Road Association, was founded in 1909 as a non-profit, non-political organization dedicated to the exchange of knowledge on all aspects of roads and road transport. Its key missions are to:

- Serve as a leading international forum for the analysis and discussion of the full spectrum of transport issues related to roads and road transport;
- Identify, develop, and share best practices while improving access to international knowledge;
- Fully consider the needs of developing countries and countries in transition in all its activities; and
- Design, produce, and promote effective tools to support decision-making in the field of roads and road transport.

TECHNICAL COMMITTEE 4.5 Decarbonization of Road Construction and Road Maintenance

The work of PIARC Technical Committee 4.5, Decarbonization of Road Construction and Maintenance, focuses on identifying and reducing carbon impacts across all phases of road projects. The Committee will share its work examining both logistical and technological inefficiencies in construction and maintenance, and targeted mitigation strategies, which they are collating via case studies, literature reviews, and surveys including demonstrating real-world decarbonization impacts using clear indicators and best practices.

TC 4.5's work is organized around five core topics:

- 4.5.1 Improving the logistical and technological efficiency of decarbonization in road construction and maintenance
- 4.5.2 Exploring new technologies for measuring and inspecting decarbonization initiatives

- 4.5.3 Addressing the decarbonization of project logistics
- 4.5.4 Reducing emissions from construction and maintenance equipment
- 4.5.5 Developing and applying carbon calculators

LOCATION OF THE SEMINAR

The seminar will be held at the Hilton Hotel in the Exhibition Center EXPO, Almaty, Kazakhstan from October 8-9, 2025.

Almaty: Almaty, the largest city in Kazakhstan, is located in the country's southeast at the foothills of the scenic Zailiyskiy Alatau, part of the northern Tien Shan mountain range. Formerly the capital until 1997, Almaty remains the nation's principal center of science, culture, finance, and tourism.

With a temperate continental climate, Almaty experiences warm summers and snowy winters. Its unique geographic setting allows for a rare blend of urban convenience and immediate access to nature—just a short drive from the city center are world-renowned mountain resorts such as Medeu and Shymbulak. Almaty's dynamic growth, strategic position in Central Asia, and international connectivity make it an increasingly attractive destination for global events, business, and cultural exchange.

REGISTRATION

Prospective delegates to the International Seminar on Strategies, Materials and Technologies for Sustainable and Decarbonized Road Construction and Road Maintenance are required to complete the Pre-Registration Form found on the last page. A separate form must be submitted for each participant. Registration is free. Alternatively, prospective delegates may fill it out and submit a scanned copy by e-mail to: info@piarc.kz

ACCOMMODATION

Almaty Hotels

5*, room rate approximately 120 euro (breakfast included).

HOW TO GET HERE

Connections to Almaty Airport are available through Istanbul, Seoul, Dubai, Doha, Warsaw, Prague, and Beijing.

Decarbonization of road construction and maintenance: innovations, new technologies and materials

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Technical Visit

A technical visit for Seminar participants will take place on October 10. During the visit, attendees will have the opportunity to tour a typical road maintenance station, view modern equipment, and observe live demonstrations by participants of the Kazakhstan Winter Maintenance Championship. The visit will be held in the village of Zhibek Zholy.

Interpretation

The working language of the seminar is English.

Simultaneous translation into Russian will be available for participants.

Organizing Committee

PIARC Technical Committee 4.5:

- Chair: Janusz BOHATKIEWICZ (Poland)
- English-speaking Secretary: Louis BETTINI (Australia)
- French-speaking Secretary: Josh MATTHEIS (France)

PIARC General Secretariat:

· Technical Director: Miguel Caso Florez

Technical Advisor: Go HirochiTechnical Advisor: Nadia Lappa

Kazakhstan:

- Berik Kamaliyev (Chairman of the National Committee of PIARC in the Republic of Kazakhstan)
- Anar Gabdullina (Deputi Chairman of Road Commetee)
- Arman Alibayeva (Chairman "KazjoIGZI" JSC)
- Bulatbek Aytbayev (Cairman "NCRAC")
- Amanzholova Azhar (Deputy Cairman of "KazAutoZhol" GSK)
- Talgat Shusupov (Chairman of "KAZHservis" LLP)



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| Day - 1 | October 8 |
|---------------|---|
| 8:30 - 9:00 | Registration |
| 9:00 - 9:30 | Opening session |
| 9:30 - 11:00 | Keynote introductory session (Related to the road resilience) |
| 11:00 - 11:30 | Break |
| 11:30 - 13:00 | Session 1 - Strategies for sustainable design in road construction (design, planning and logistics) |
| 13:00 - 14:00 | Lunch |
| 14:00 - 15:30 | Session 2 - New technologies and innovations for sustainable road infrastructure in the road industry (materials) |
| 15:30 - 16:00 | Break |
| 16:00 - 17:30 | Session 3 - Maintenance strategies to improve the environmental and carbon performance of road assets |

| Day - 2 | October 9 |
|---------------|--|
| 8:30 - 9:30 | Transfer from hotel |
| 9:30 - 13:00 | Session 4 - Decarbonization of construction and maintenance equipment |
| 13:00 - 14:00 | Lunch |
| 14:00 - 15:30 | Session 5 - Measuring lifecycle performance of road infrastructure (Carbon Calculators / measurement technologies) Session 6 - Trends and Future Horizons in Sustainable Road Infrastructure |
| 15:30 - 17:00 | Panel Discussion - De-Icing practices, methods and considerations |
| 17:00 - 17:30 | Closing Remarks |
| 17:30 - 18:30 | Transfer to hotel |

| Day - 3 | October 10 |
|---------------|---------------------|
| 8:30 - 9:30 | Transfer from hotel |
| 9:30 - 13:00 | Technical visit |
| 13:00 - 14:00 | Lunch |
| 14:00 - 17:30 | Technical visit |
| 17:30 - 18:30 | Transfer to hotel |

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PRE-REGISTRATION FORM

8-10 October, 2025, Almaty, Kazakhstan

| Last name: | First Name: |
|----------------------------------|---------------------------------|
| Title: | |
| Organization: | Country: |
| Address: | |
| City: | Phone: |
| E-mail: | Fax: |
| Date of arrival, flite number | Date of departure, flite number |
| Please return completed form to: | |

E-mail: info@piarc.kz

Mobile Phone: +7 705 295 4007.