About the Workshop

PIARC Technical Committee (TC) 1.4 Climate Change and Resilience of Road Networks aims to update the PIARC International Climate Change Adaptation Framework for Road Infrastructure (developed in previous PIARC cycles) and seeks to identify uniform and holistic methodological approaches to climate change and other hazards resilience. This workshop will provide an overview of the challenges to managing climatic impacts and road resilience by presenting approaches and case studies from different countries.

The workshop is organized and supported by members of the Federal Highway Research Institute (BASi) and the BMVI-NoE, which brings together expertise of seven departmental research facilities and executive agencies of the Federal Ministry of Transport and Digital Infrastructure (BMVI). Its objective is to address future transport issues through innovations in the areas of adaptation to climate change, environmental protection and risk management.

The workshop provides an opportunity to share international knowledge and comprises of six sessions, over two days:

Day 1 (02 June):
- Session I: Climate impact assessment
- Session II: Resilience Management
- Session III: Adaptation to climate change

Day 2 (04 June):
- Session IV: Hazards assessments
- Session V: Criticality assessments
- Session VI: Climate change and regulations

During these six sessions, representatives of the Federal Ministry of Transport and Digital Infrastructure Network of Experts (BMVI-NoE) as well as of the World Road Association PIARC Technical Committee (TC) 1.4 will present their work on the different topics with the aim of including these important findings into the work being developed by TC 1.4.

The two-day workshop will take place on Wednesday, 02 June 2021 and Friday, 04 June 2021 as a virtual meeting. The total duration per day will be about 2.5 hours, starting at 01:00 p.m. Berlin time (CEST/GMT +2).

RSVP: To register for the Workshop please follow the link below and confirm your attendance. After registration, you will receive a confirmation email with information to join the Workshop.

https://zoom.us/meeting/register/tJUtf-moqjIsGNR5WaEurnsa5V9cNutLD7Pd
# Schedule

starting time is 01:00 p.m. Berlin time (CEST/UTC+2)

<table>
<thead>
<tr>
<th>Time</th>
<th>Agenda Item</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>13:00</td>
<td>Greeting</td>
<td>Patrick Mallejaqṣᵃ, Birgitta Worringenᵇ, Caroline Evansᶜ</td>
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<tr>
<td>13:15</td>
<td>Introduction to Session I</td>
<td>Martin Kloseᵈ, Anne–Farina Lohrengeľ, Kees van Muiswinkel⁴</td>
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<tr>
<td>14:00</td>
<td>Introduction to Session II</td>
<td>Gordana Petkovic⁵, Martin Klose, Martine Holm Frekhau⁴, Gordana Petkovic⁵</td>
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<td>14:45</td>
<td>Short Break</td>
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<tr>
<td>14:50</td>
<td>Introduction to Session III</td>
<td>Norman Voß⁶, Thomas Bles, Nkuleluko Leta⁶, Norman Voß⁶</td>
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<tr>
<td>15:30</td>
<td>Conclusion &amp; End of Day 1</td>
<td>Miguel Caso Florez⁷</td>
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Session I: Climate impact assessment
Anne–Farina Lohrengeľ (BMVI-NoE, BAST, Germany): Climate impact assessment for the federal trunk road network of Germany
Kees van Muiswinkel (Rijkswaterstaat, Netherlands): Climate stress testing the Dutch highways

Session II: Resilience Management
Martin Klose (BMVI-NoE, BAST, Germany): A resilience management concept for the federal trunk road network of Germany
Martine Holm Frekhau⁴ (NPRA, Norway): A resilience system for managing natural hazards on Norwegian roads

Session III: Adaption to climate change
Thomas Bles (Deltas, Netherlands): Mainstreaming Disaster Risk Management to sustain local road infrastructure in the Philippines
Nkuleluko Leta (ReCAP, South Africa): Guidelines for a holistic approach to sustainable climate adaptation and resilience for rural road infrastructure in Africa

Session IV: Hazard assessments
Lennart Meine (BMVI-NoE, BAST, Germany): Blue spot analysis approach for the federal trunk road network of North Rhine Westfalia, Germany
Tala Suliman Jamel Abu Shuqair (MoEI, United Arab Emirates): Climate Change Impact on Traffic Safety and Transportation System Performance in the UAE

Session V: Criticality assessment
Norman Voß (BMVI-NoE, BAST, Germany): Indicator-based criticality analysis: development of criticality indicators and an evaluation approach to assess the criticality of road sections
Jeffrey Meek (MnDOT, United States of America): Assessing Resilience and Criticality in a Changing Climate
Juan Fernando Mendoza Sánchez (IMT, Mexico): Criticality Assessment in road projects in Mexico

Session VI: Climate change and regulations
Marvin Stell (BMVI-NoE, BAST, Germany): Standards and regulations in the context of climate change: identification of adaptation needs with regard to climate change unexpected events
Yinghao Miao (USTB, China): Research on the Influence of Global Warming on Asphalt Pavement in China