A solid orange horizontal bar is positioned at the top left of the slide.

Activities of the Group of Experts on Assessment of Climate Change Impacts and Adaptation for Inland Transport (2020-2025)

SC.1, 118th session
17 October 2023

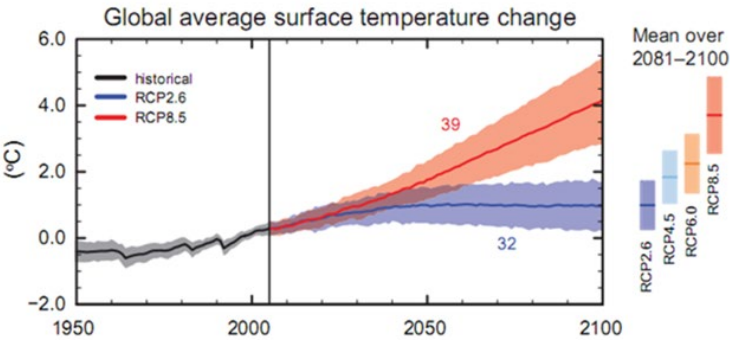
Lukasz Wyrowski, secretariat

Group of Experts on Assessment of Climate Change Impacts and Adaptation for Inland Transport (2020-2025)

Focus:

- Future climate change impact analysis
- Framework for stress test to climate change hazard
- Guide for adaptation pathways
- Analysis of losses due to climate change for transport
- Guide for transport network criticality assessment (initial stage)
- Awareness-raising and knowledge sharing

Future climate change impact analysis



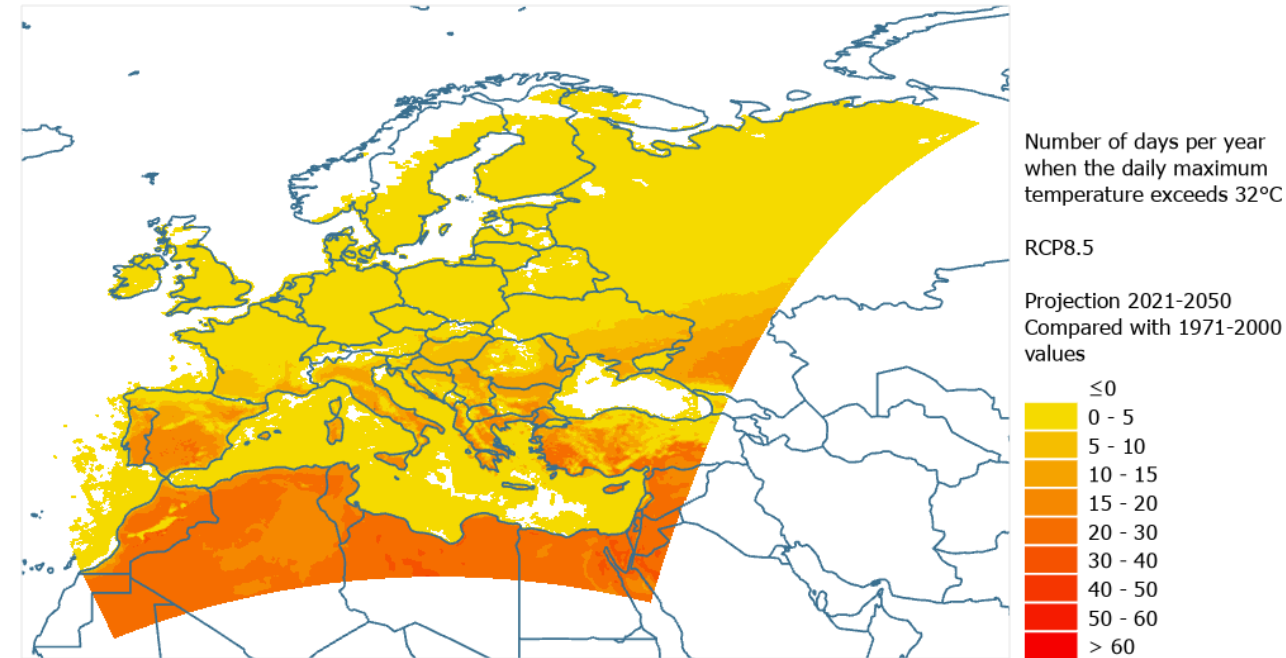
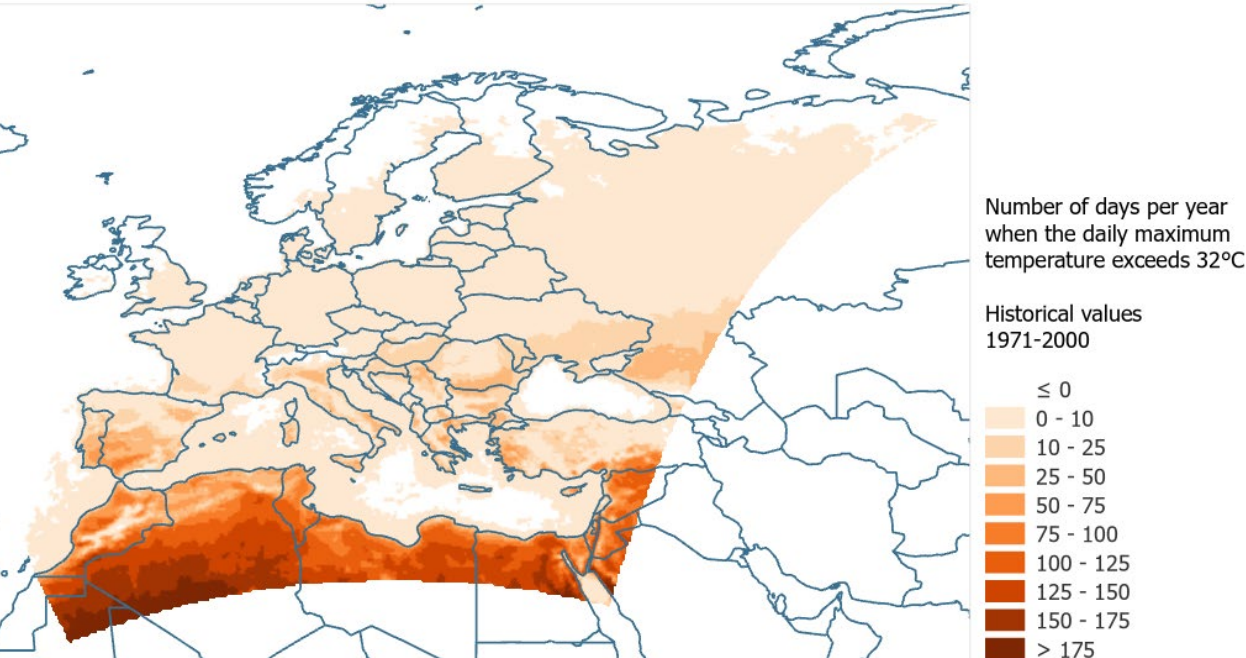
In focus:

- High temperatures
- Heavy precipitation

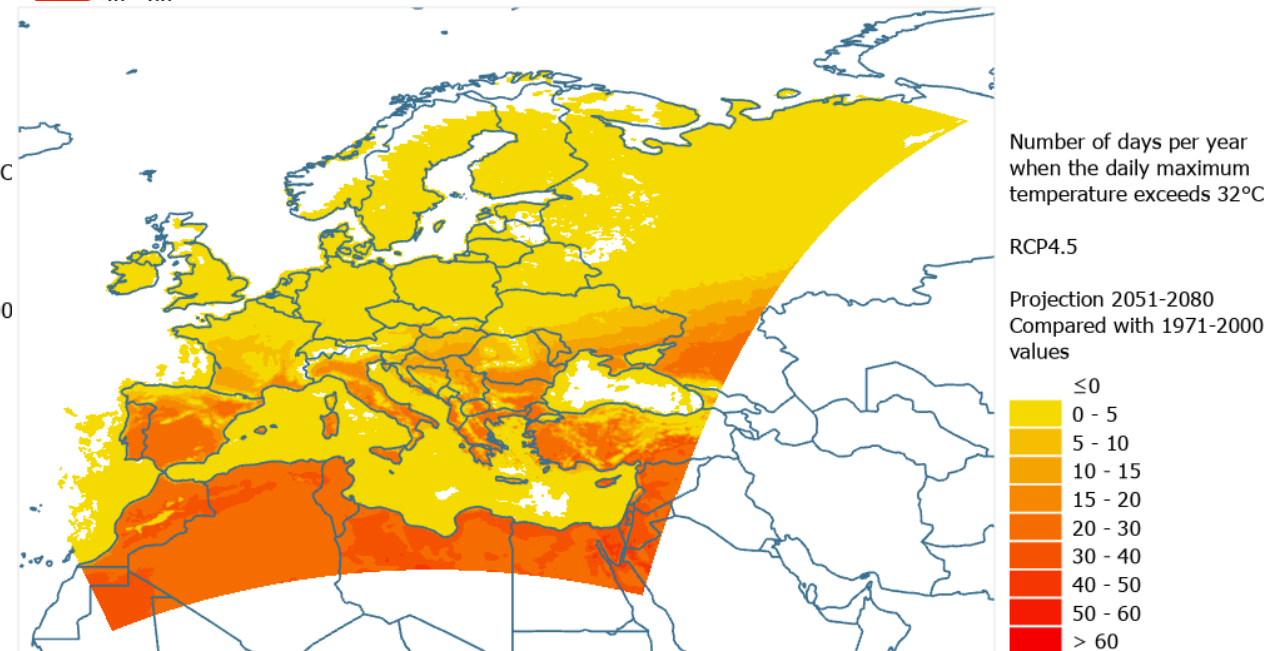
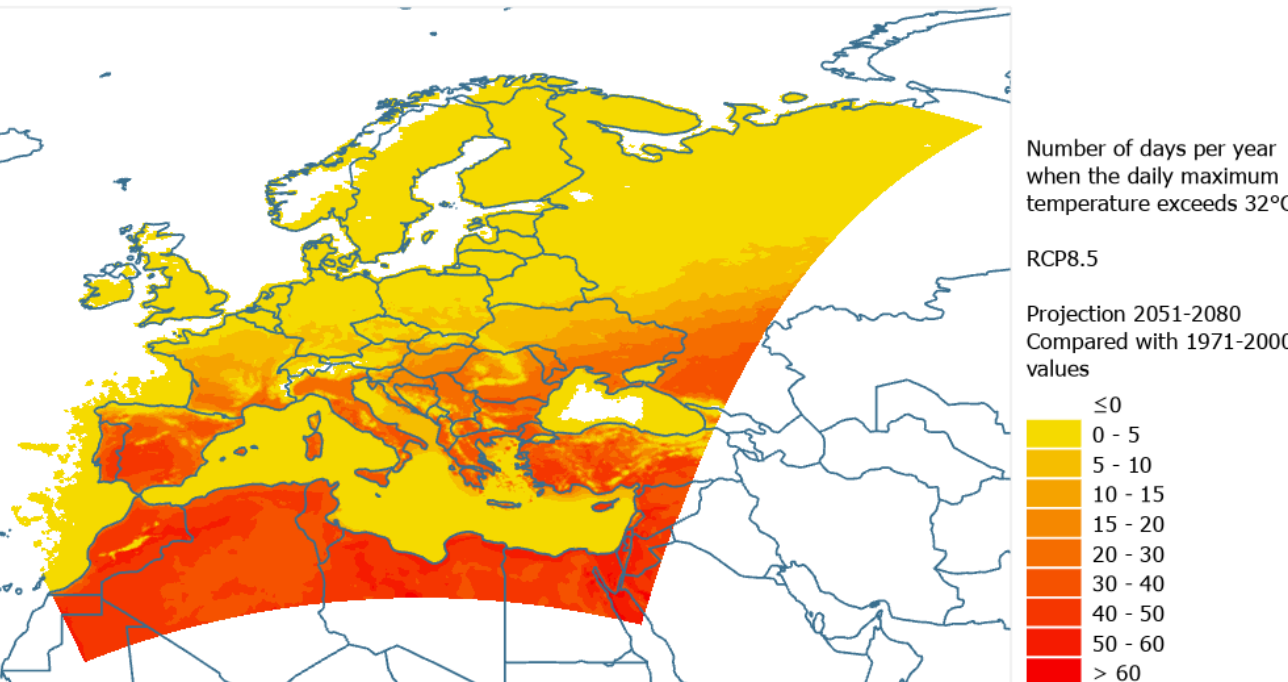
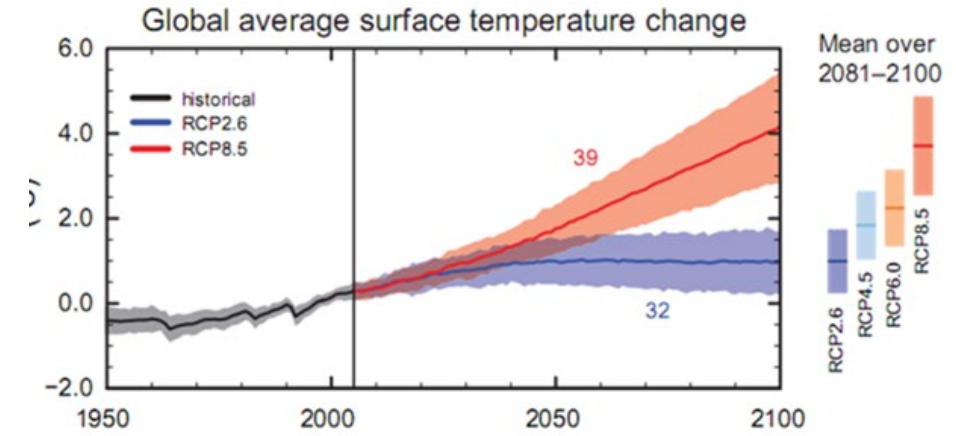
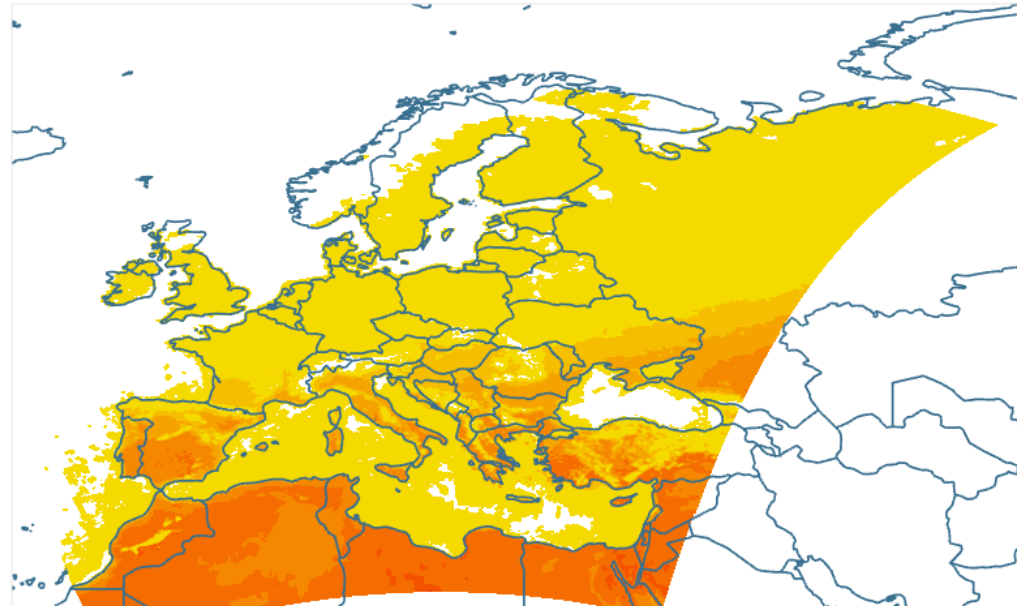
In consideration:

- Windstorms

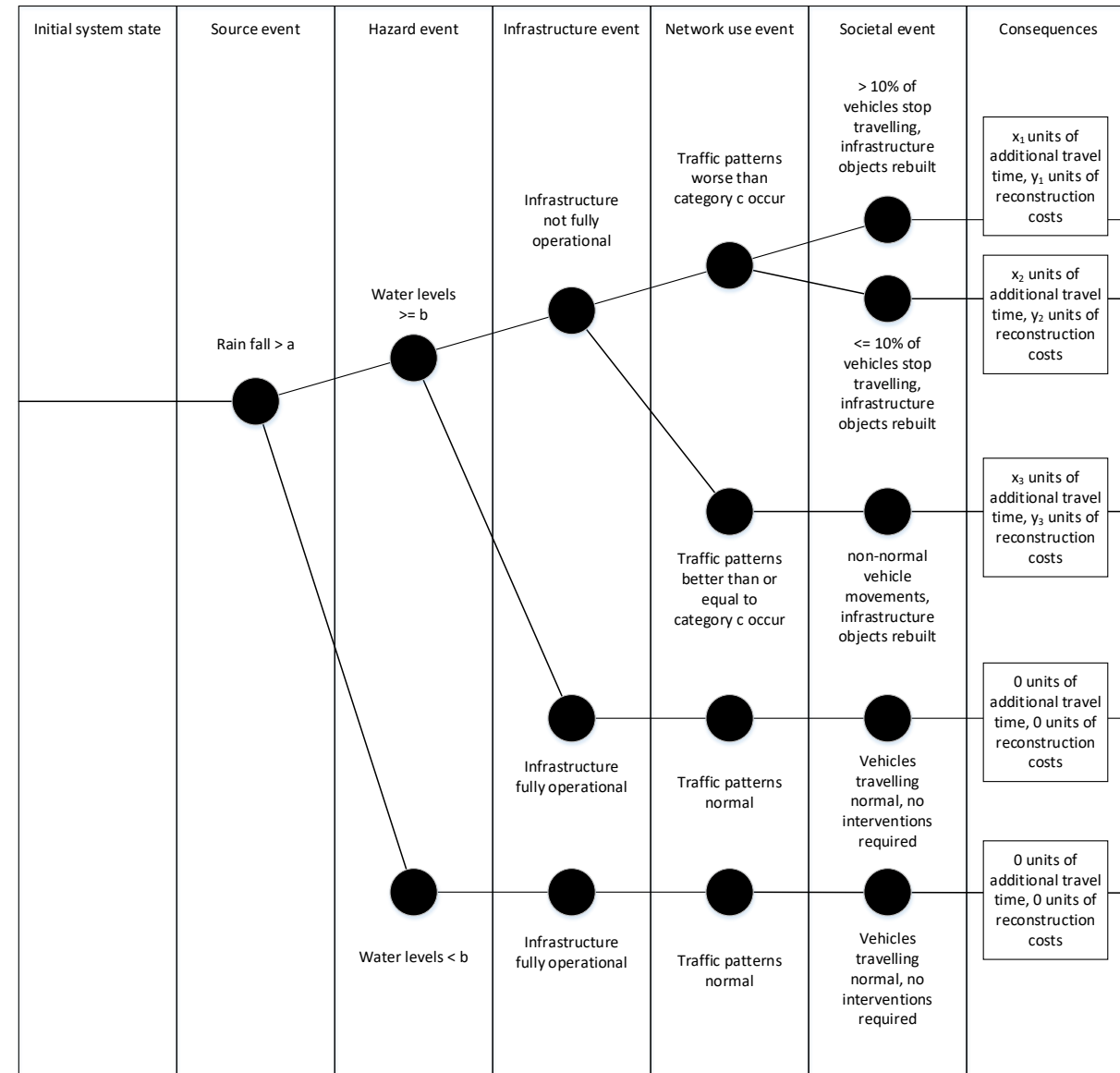
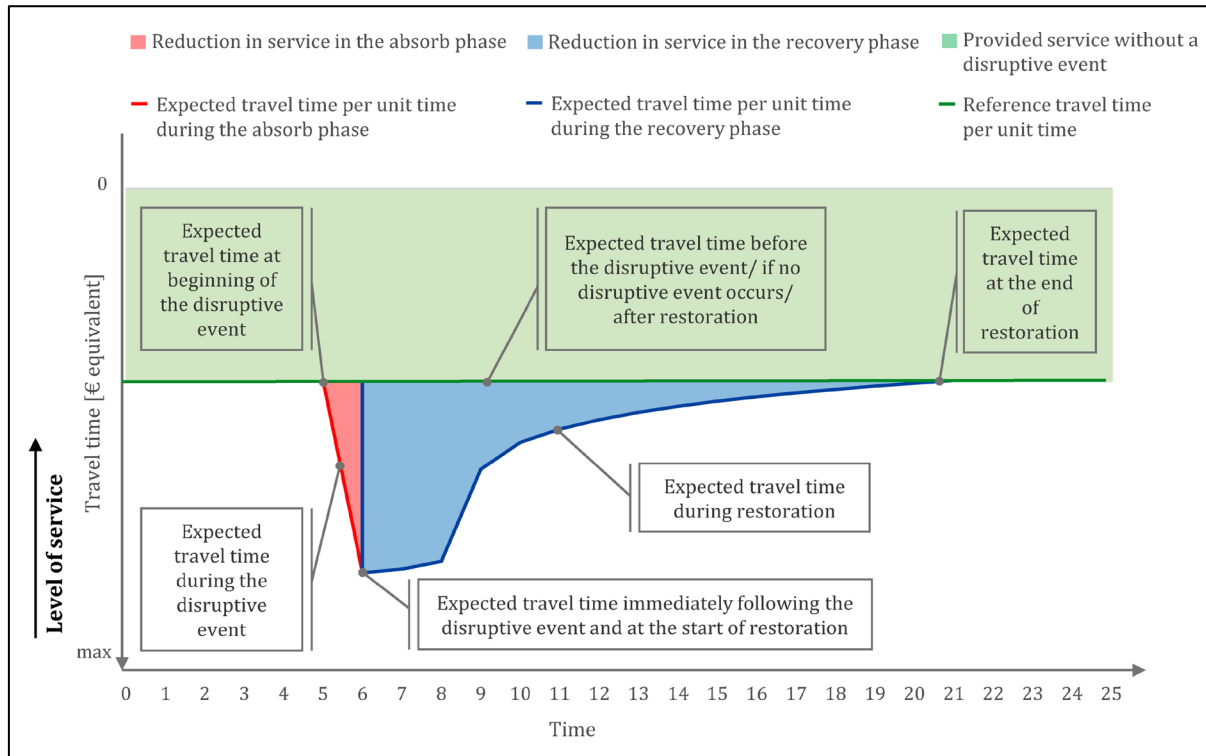
Analysis is done looking at weather phenomena thresholds such as 25, 32 and 43°C (for temperatures) and 50, 100 and 150mm (for precipitation) to relate it to infrastructure relevant



Future climate change impact analysis



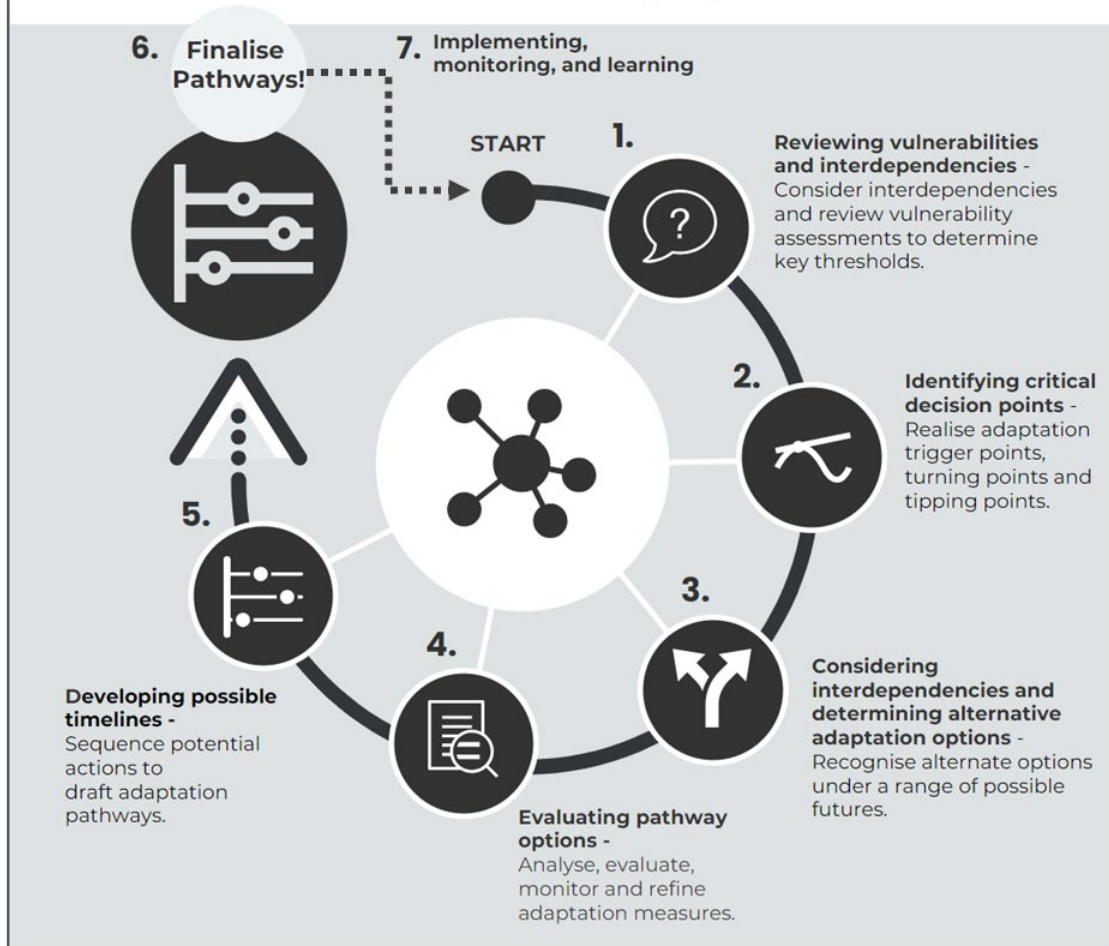
Framework for stress test to climate change hazard



Source: Adey, B.T., et al., (2021), CEN/CLC/WS 018 "Guidelines for the assessment of the resilience of transport infrastructure to potentially disruptive events"

STEPS FOR DEVELOPING ADAPTATION PATHWAYS

Guidance framework for transport professionals

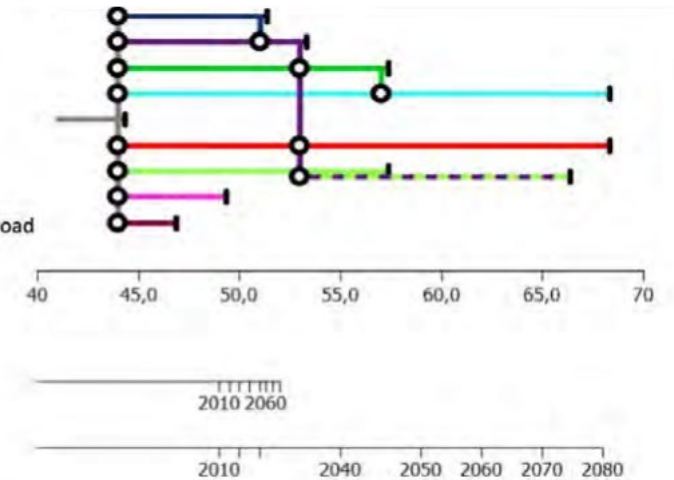


Single layer 5 cm porous asphalt
 Drainage via 7 cm porous asphalt
 Drainage via 10 cm porous asphalt
 Drainage via 18 cm porous asphalt
 Current situation
 Increase capacity of drainage system
 Install gutters rather than manholes
 Adaptive maintenance
 Guarantee flatness of longitudinal profile of the road

precipitation in 2 hours [mm]

G_L centre

W_H upper

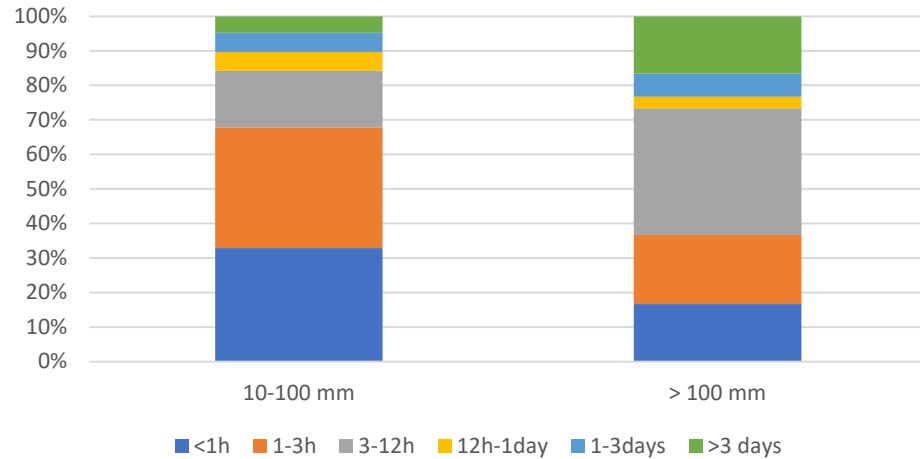


Map generated with Pathways Generator, ©2015, Deltares, Carthago Consultancy

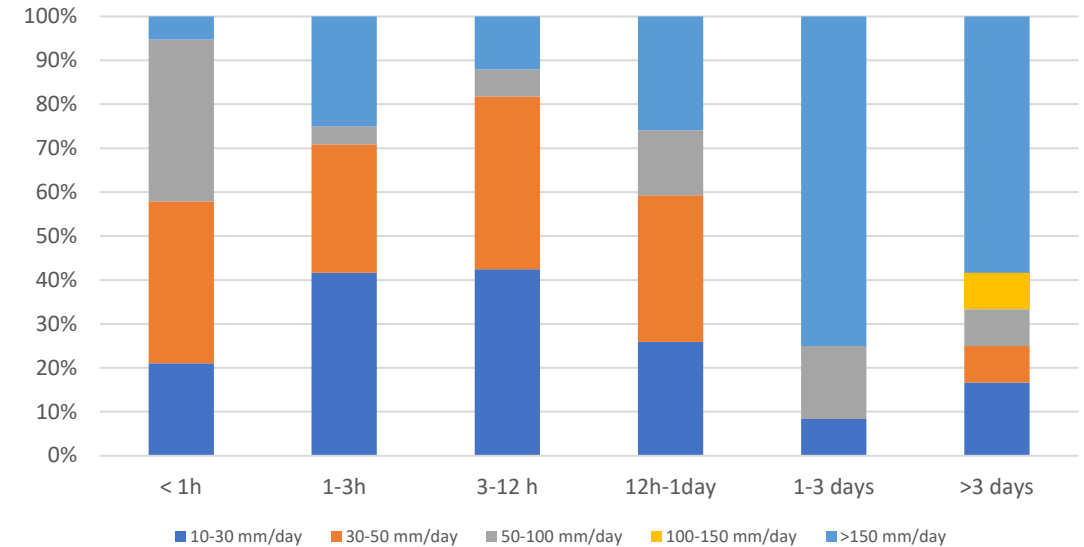
Analysis of losses due to climate change for transport



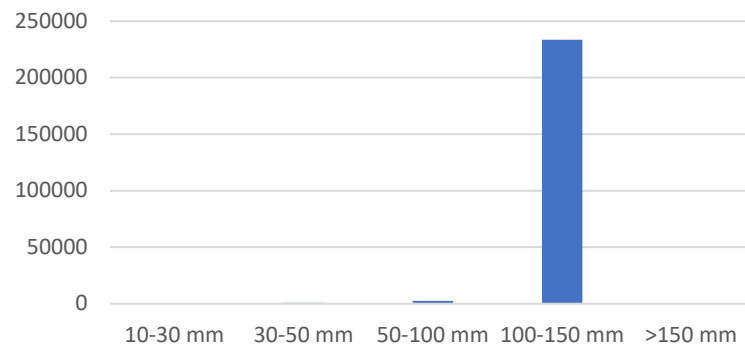
Length of disruption per intensity of precipitation



Length of disruption - Intensity of precipitation



Average cost



- France, UNECE, UNESCWA and CETMO conference on climate change and climate adaptation for the Mediterranean region



Thank you

Lukasz Wyrowski

Secretary, Group of Experts on Assessment of Climate Change Impacts and Adaptation for Inland Transport

Lukasz.Wyrowski@un.org