We can contribute to the following tasks as described in the Topic:
- Demonstrating effective collection, analysis and use of network-wide fixed and variable data for effective traffic management.
- Conducting simulations for system-wide optimisation of demand/capacity balancing for passenger and freight flows.

Our approach:
Our competencies range from i) traffic hotspot detection (recurring and ad-hoc incidents, percolation), ii) data fusion of classical traffic sensors, floating car data, and social media data to iii) dynamic and predictive road traffic modeling and control approaches. An important element of our approach is co-simulation: we have demonstrated experience in realizing digital twins of the considered traffic network based on real-time data, microscopic, and agent-based traffic simulations.

COMPETENCES AND REFERENCES RELEVANT TO THE TOPIC
- We can use the test tracks of the ZalaZONE Proving Ground for real-world testing and validation.
- We have an autonomous test vehicle and traffic control devices (controllers, signal heads, etc.).
- We have licenses to several state-of-the-art simulators, such as IPG CarMaker, PTV Vissim/Visum, VTD Vires, PreScan.
- We have experiences to use these tools to create complex co-simulation systems [YouTube link].
- Our publication list: [link]
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