Future requirements and opportunities

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dynniq

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Main objectives

- To analyse the trends and challenges of new technologies that impact digital (ICT) transport infrastructure
- To investigate demographics and patterns of demand that will impact physical & digital transport infrastructure
- To determine the (future) needs of transport infrastructure
- To support MORE city corridor case studies: Budapest, Constanta, Lisbon, London and Malmö

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The future

Prediction is very difficult, especially about the future.

- Niels Bohr

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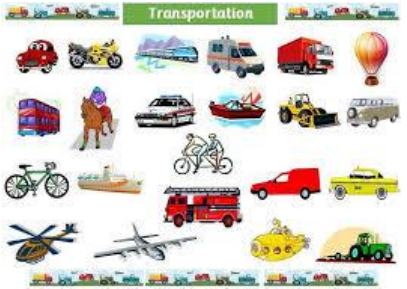
Transport demand vs. supply

- Needs of transport (physical and digital) infrastructure
- Changes of demographics and patterns of demand
- Long-term strategy vs. short-term solutions



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Technologies in transport

- Sensor technology
- Communications systems
- Information processing / HPC (High Performance Computing)
- Control technology
- AI (Artificial intelligence)
- Materials / Nanotechnology

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Applications in transport

- In-vehicle (autonomous and cooperative) systems – towards connected, cooperative and automated road transport
- Data analytics, processing and management
- Traffic management and transport planning
- Remote sensing and control – for infrastructure monitoring, detecting, communication, control and maintenance
- Logistics and resilience systems

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MORE technical systems development

- Advances in transport modes & their operation, e.g. automated vehicles, further transport for people, goods, new patterns of services
- Sensor and communication technologies, e.g. FCD, roadside sensors, cellular network for traffic detection and TM, air quality monitoring, incident detection and mgmt.
- Dynamic traffic mgmt. and signal control at a network level
- New solutions for parking, (un)loading goods, information provision for road users (e.g. via LED road signs and markings) mgmt.
- Advances in construction and maintenance, e.g. longer lasting road surfaces, detection and maintenance

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Expected outcomes

- Analysis of technological advances
- Designing for future road user needs
- Identification of future scenarios

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Thank you

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