STORM

Smart freight TranspOrt and logistics research Methodologies

# STORM at glance

Dr. Yancho Todorov, VTT

Project Coordinator

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101006700.

# Smart freight TranspOrt and logistics research Methodologies at glance

- The project aims at the EU call “Advanced research methods and tools in support of transport/mobility researchers, planners, and policy makers” (MG-4-8-2020 https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/mg-4-8-2020)
- Time span of the project – 01.2021 – 06.2023
- The focus of the project is to identify and screen new data sources, develop novel methodologies, and generate use cases including the latest trends in freight and logistics transport.

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# Project Consortium


- VTT, Technical Research Centre of Finland
- Fraunhofer, Institute of Systems and Innovation Research, Germany
- Chalmers University, Department of Space, Earth and Environment, Sweden
- Czech Technical University in Prague, Department of Logistics and Management of Transport, Czechia
- ERTICO – ITS, Belgium

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# STORM objectives

- ✓ Screen existing trends and challenges in freight transport, including **digitalisation** of markets and transport systems, together with **decarbonisation and automation of transport**. Identify analysis needs and **knowledge gaps** that cannot be met by current models and tools.
- ✓ Assess existing and evaluate **new sources of big data** and how to collect, store, process, and analyse them.
- ✓ Create “synthesized data” that have broader uses and applications. Define tools and procedures needed for a **data management and analysis** strategy.
- ✓ Elaborate **new advanced analysis frameworks**, models and tools to address the new needs for the analysis of structural change in logistics and freight transport.
- ✓ Monitor, assess and demonstrate the application of the data strategy and analysis frameworks, models and tools in illustrative **case studies**.
- ✓ Provide **recommendations for research and development** on new data, new methods, and new tools to assess the potential of disruptive technologies in freight transport and disseminate the project results

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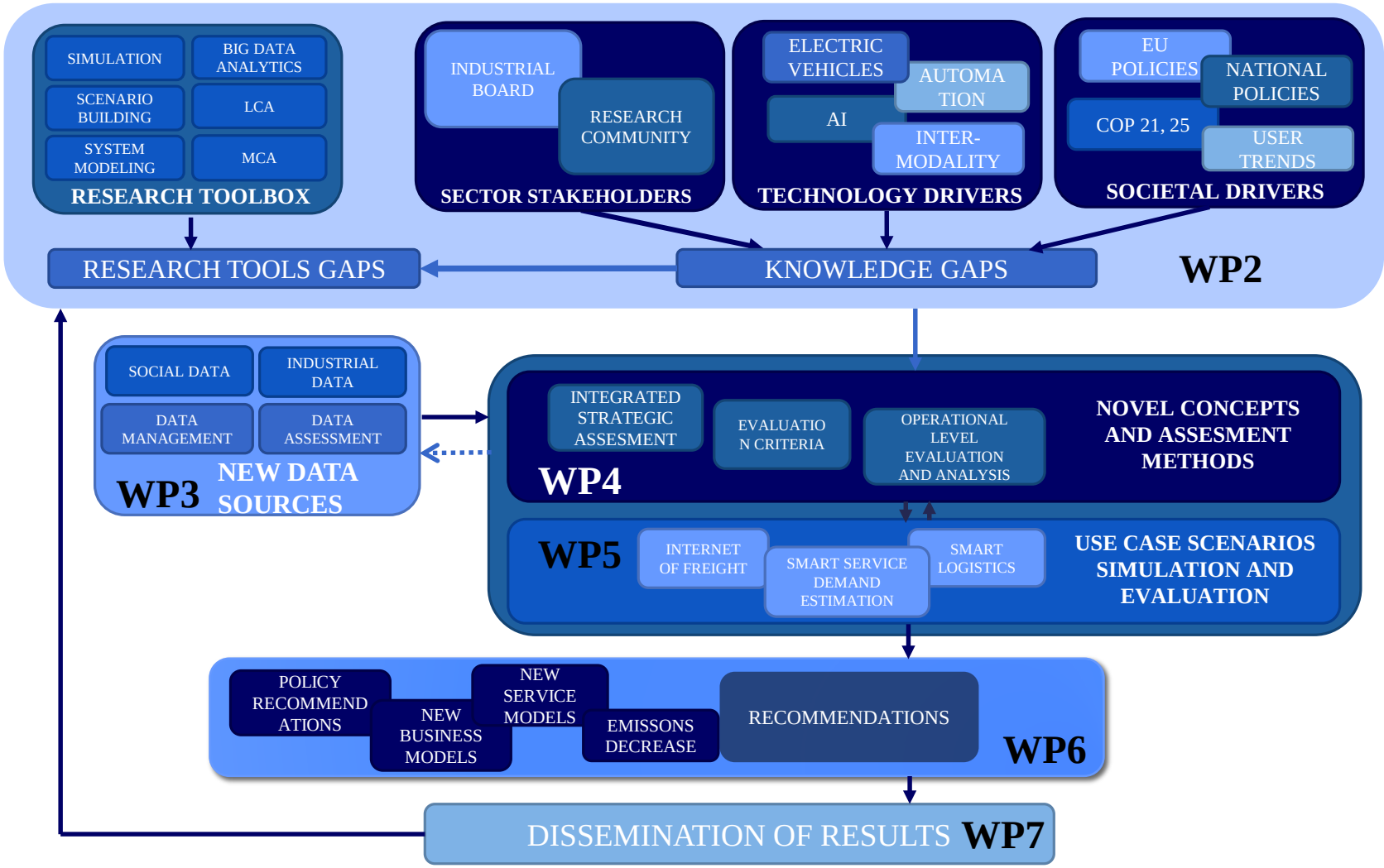
# Project Workflow

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# Use case scenarios to support real life future exploitation

- ✓ **Zero-emission Freight**
  - ✓ Analyze truck movement data for zero emission trucks
  - ✓ Design optimal charging network for electric road freight
- ✓ **Green city logistics**
  - ✓ Optimize transport flows in inner city logistics
  - ✓ Create a virtual city model
- ✓ **Policy Analysis**
  - ✓ Include structural changes in logistics in an agent-based simulation
  - ✓ Propose policy interventions

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# Exploitation potential of STORM

STORM Toolbox

MS7 Data sources, data management, descriptive data, and preliminary analyses of data collected from various sources.

MS8 New methods and tools developed to exploit data and synthesized data and new insights gained.

MS9 Elaboration of methods and assessment frameworks.

MS10 Prototype data assessment methods and assessment tools completed.

MS11 Use case scenarios elaborated, tested and demonstrated to stakeholders.

MS12 Consolidation of knowledge for research and policy makers.

MS13 Consolidation of knowledge for planners and business organizations.

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# Ways to collaborate with STORM

- ✓ Participate in the stakeholder engagement and review interviews.
- ✓ Participate on our stakeholder events and exchange knowledge and experience on future directions for freight and logistics.
- ✓ Share data or possible scenarios for our use cases to study novel business concepts and their implications.
- ✓ Translating the generated knowledge into policy recommendations

- ✓ STORM first webinar 17.06.2021 15-16.30 CET – The Future of Freight https://project-storm.eu

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# Interested to collaborate with us?


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