NTNU

Kunnskap for en bedre verden

Big Data & AI for Future Mobility Solutions

*Oluwaleke Umar Yusuf
Adil Rasheed
Frank Lindseth

Fagseminar 2024

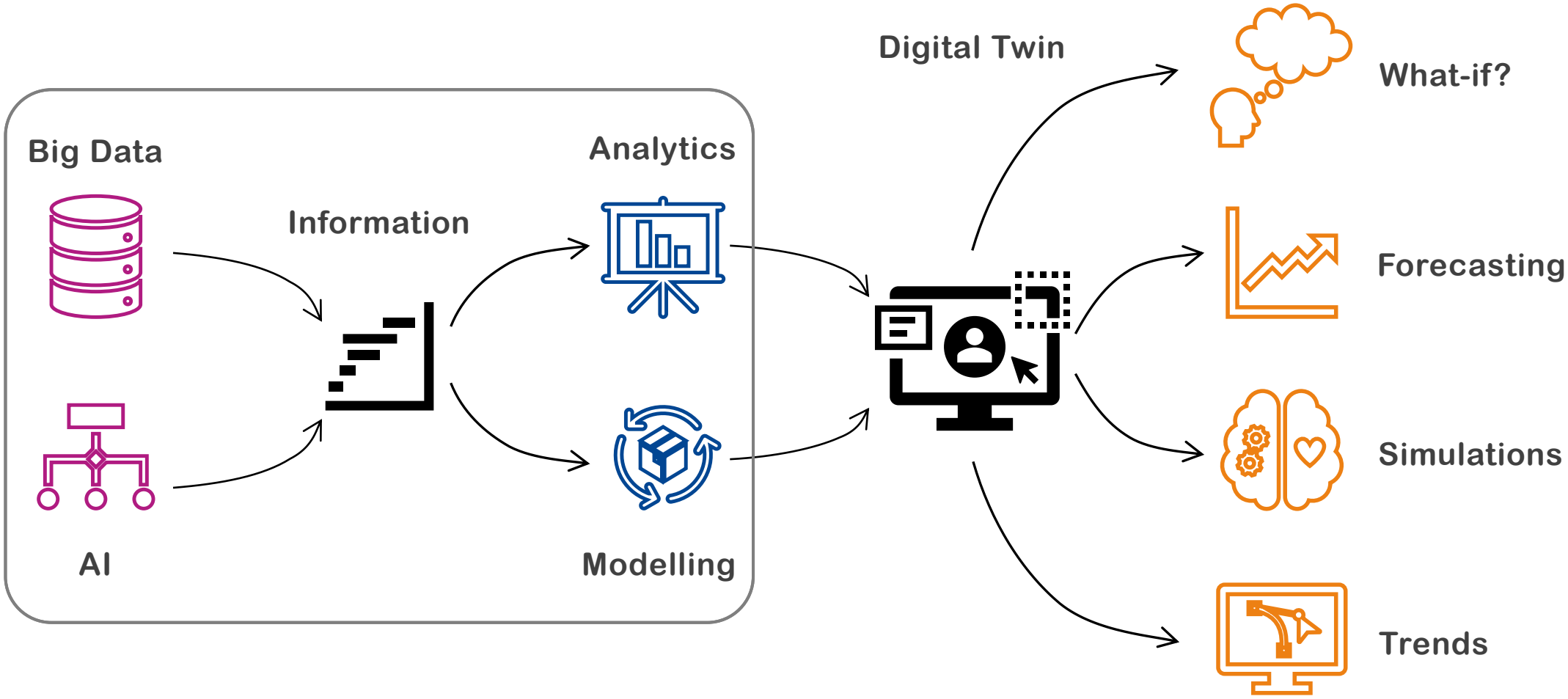
17th December 2024

PERSEUS Doctoral programme

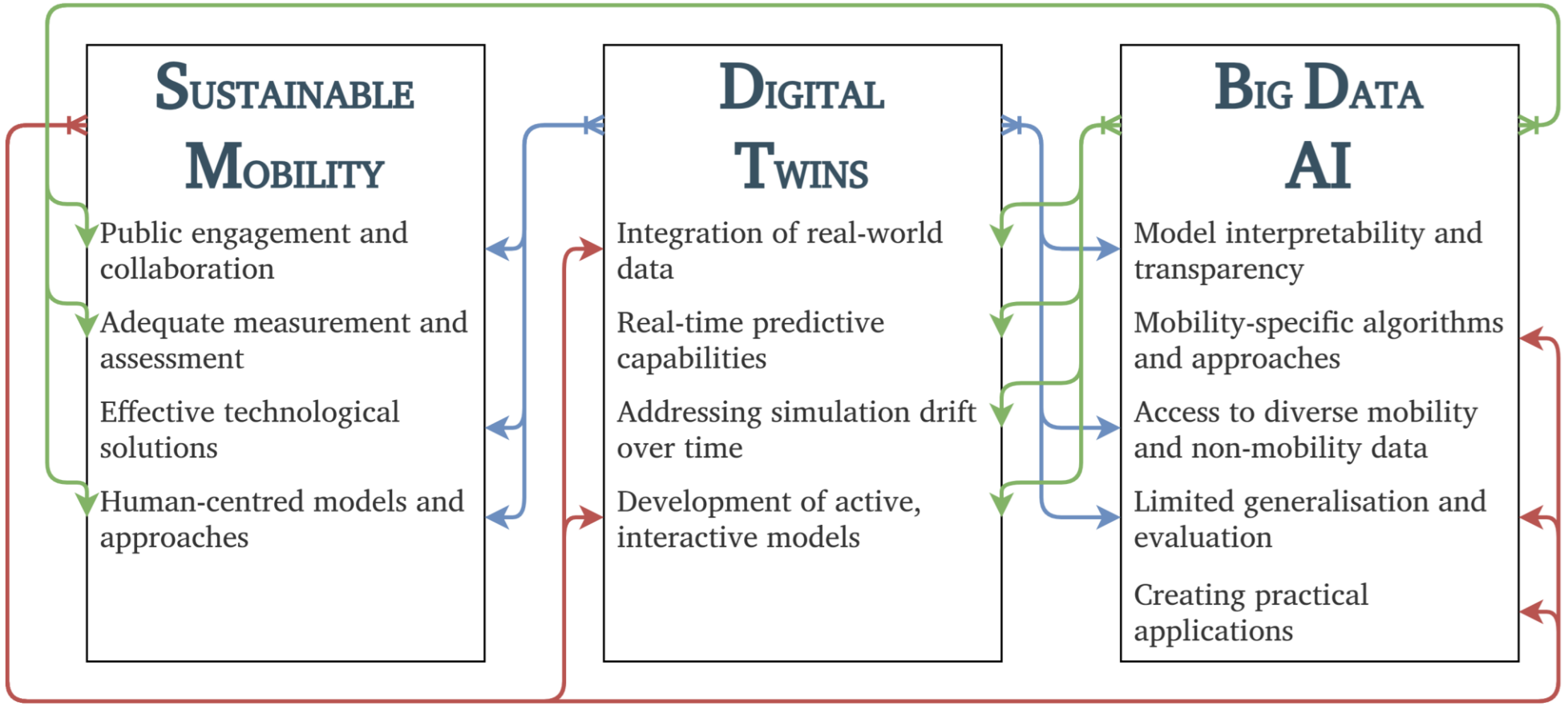
MARIE CURIE ACTIONS

NTNU
Department of Engineering Cybernetics

Overview of Work Package 3



WP3: Dynamic Digital Twins

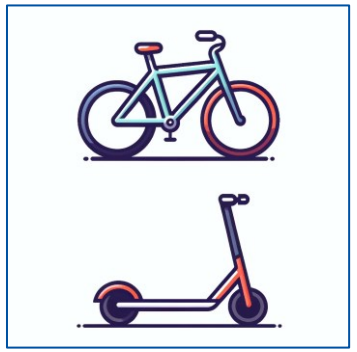


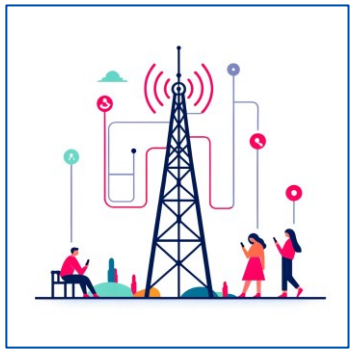
"Leveraging Big Data and AI for Sustainable Urban Mobility Solutions"
Journal: Under Review

Mobility Modes & Data

Historical analysis and predictive modelling of as much data as possible from as many sources as possible.



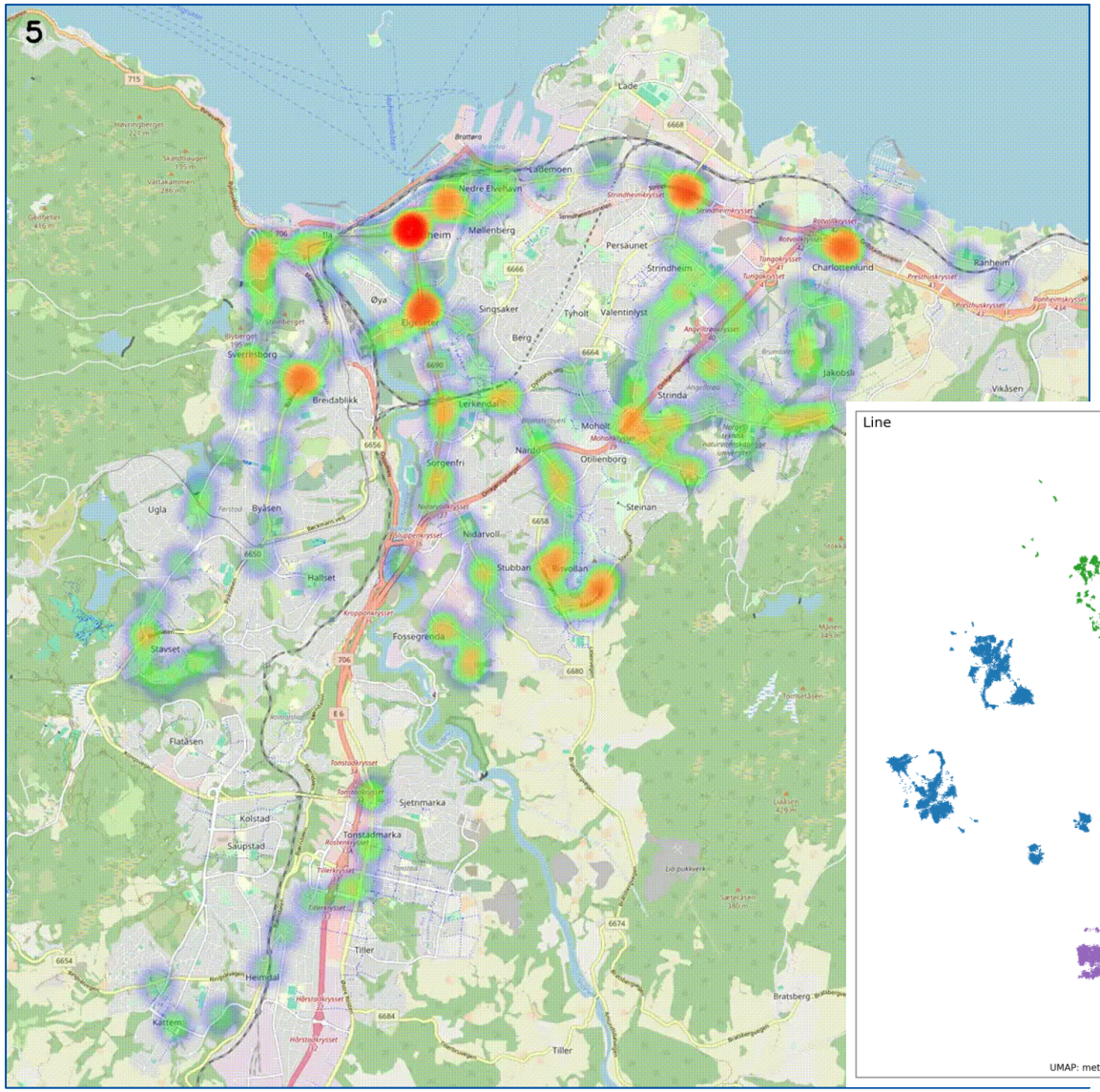


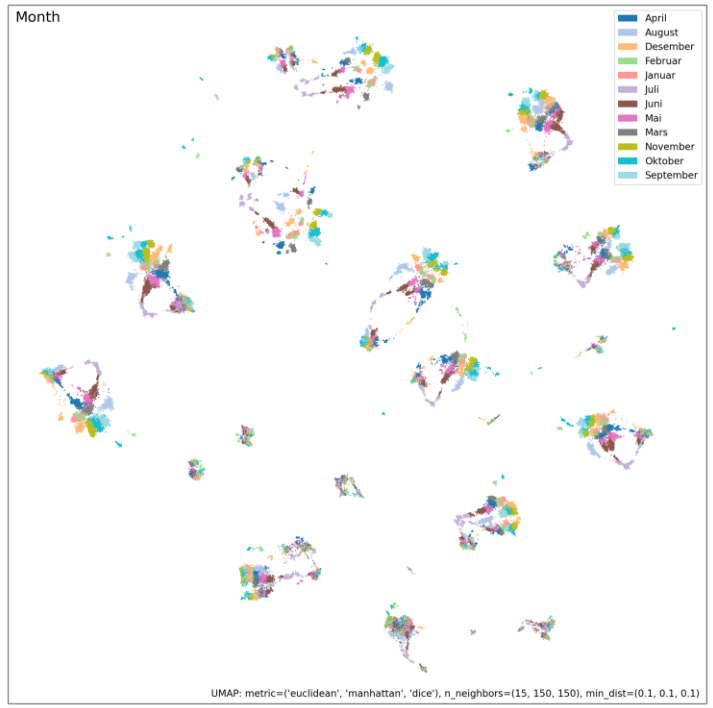


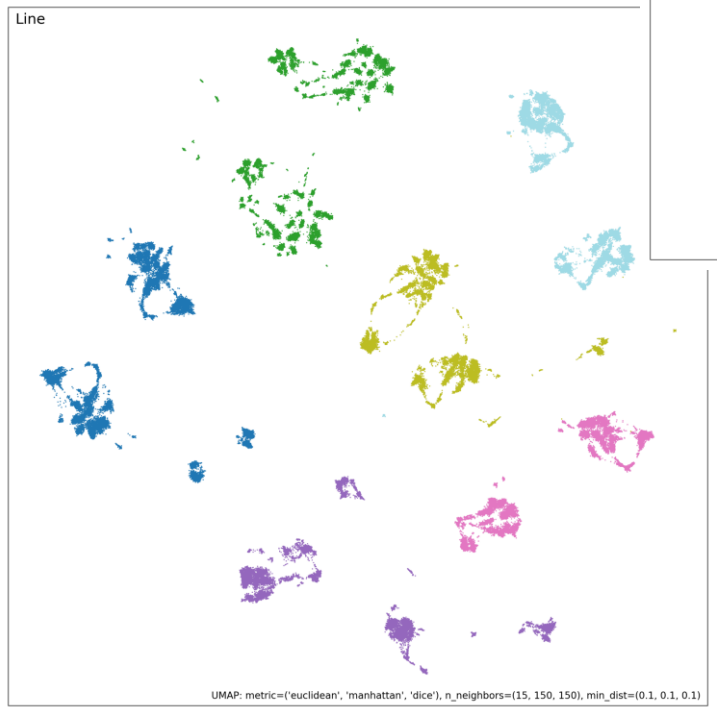
"Unveiling Urban Mobility Patterns: A Data-Driven Analysis of Public Transit"
Conference: https://arxiv.org/abs/2404.02172

"Exploring Urban Mobility Trends using Cellular Network Data"
Conference: https://arxiv.org/abs/2404.02173

MODELLING: PUBLIC TRANSIT DATA

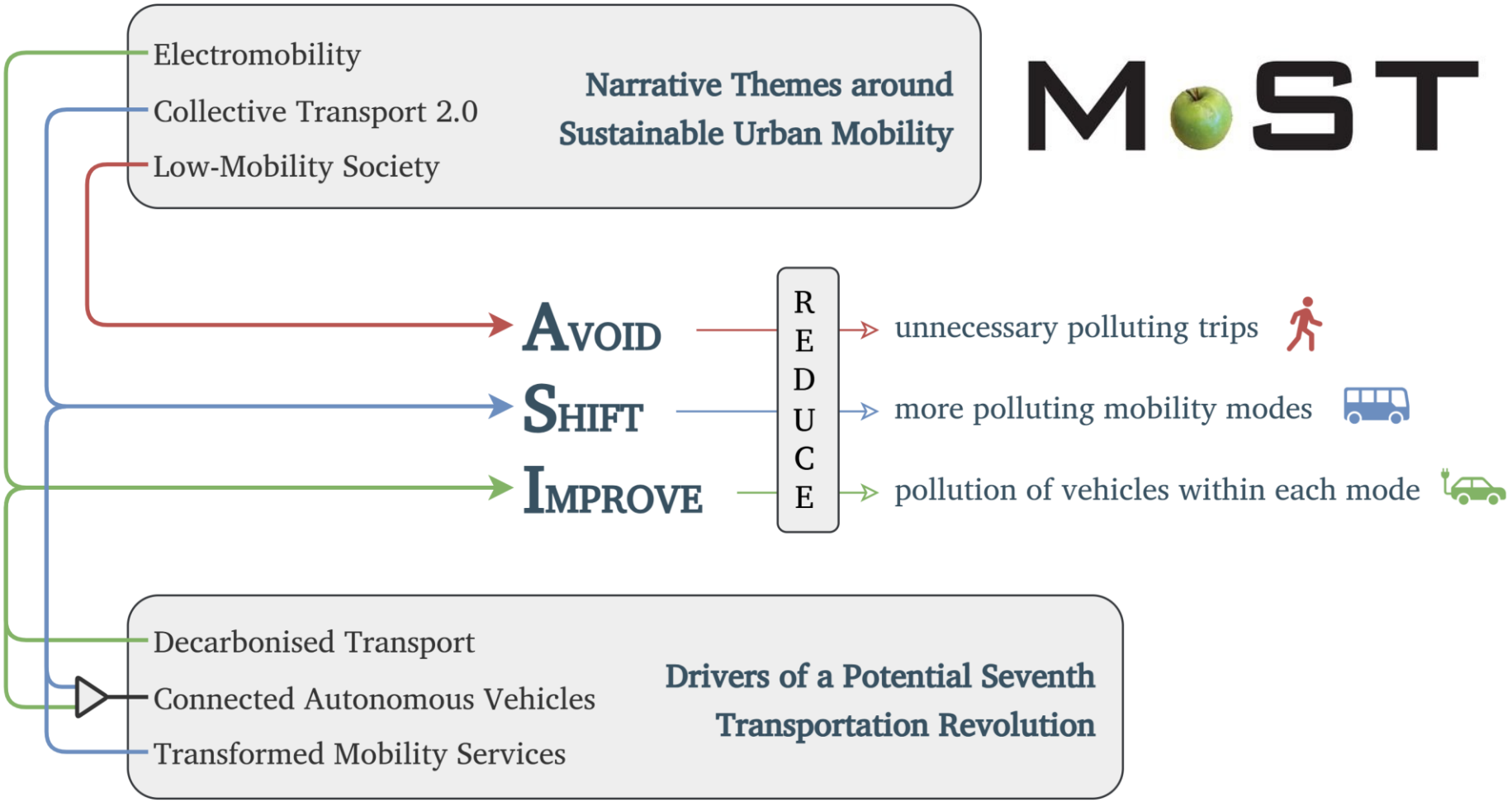






MODELLING: CELLULAR NETWORK DATA

Conclusion


Electromobility
Collective Transport 2.0
Low-Mobility Society
Narrative Themes around Sustainable Urban Mobility
MOST
Miljøpakken
AVOID
SHIFT
IMPROVE
REDUCE
unnecessary polluting trips
more polluting mobility modes
pollution of vehicles within each mode
Decarbonised Transport
Connected Autonomous Vehicles
Transformed Mobility Services
Drivers of a Potential Seventh Transportation Revolution