MOVE21

Multimodal and interconnected hubs for freight and passenger transport contributing to a zero emission 21st century

RTR Conference 2024

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 953939

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Sustainable and smart mobility for all

Key information

- Horizon 2020 Innovation Action
- Smart, green and integrated transport
- 24 partners in 7 countries
- Funding 9 MEUR from EU + co-funding from partners
- Project period from May 2021 until April 2025

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MOVE21 helps cities to transform into climate neutral and connected multimodal urban nodes for mobility and logistics

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MOVE 21

1

LIVING LABS

- Oslo
- Gothenburg
- Hamburg

2

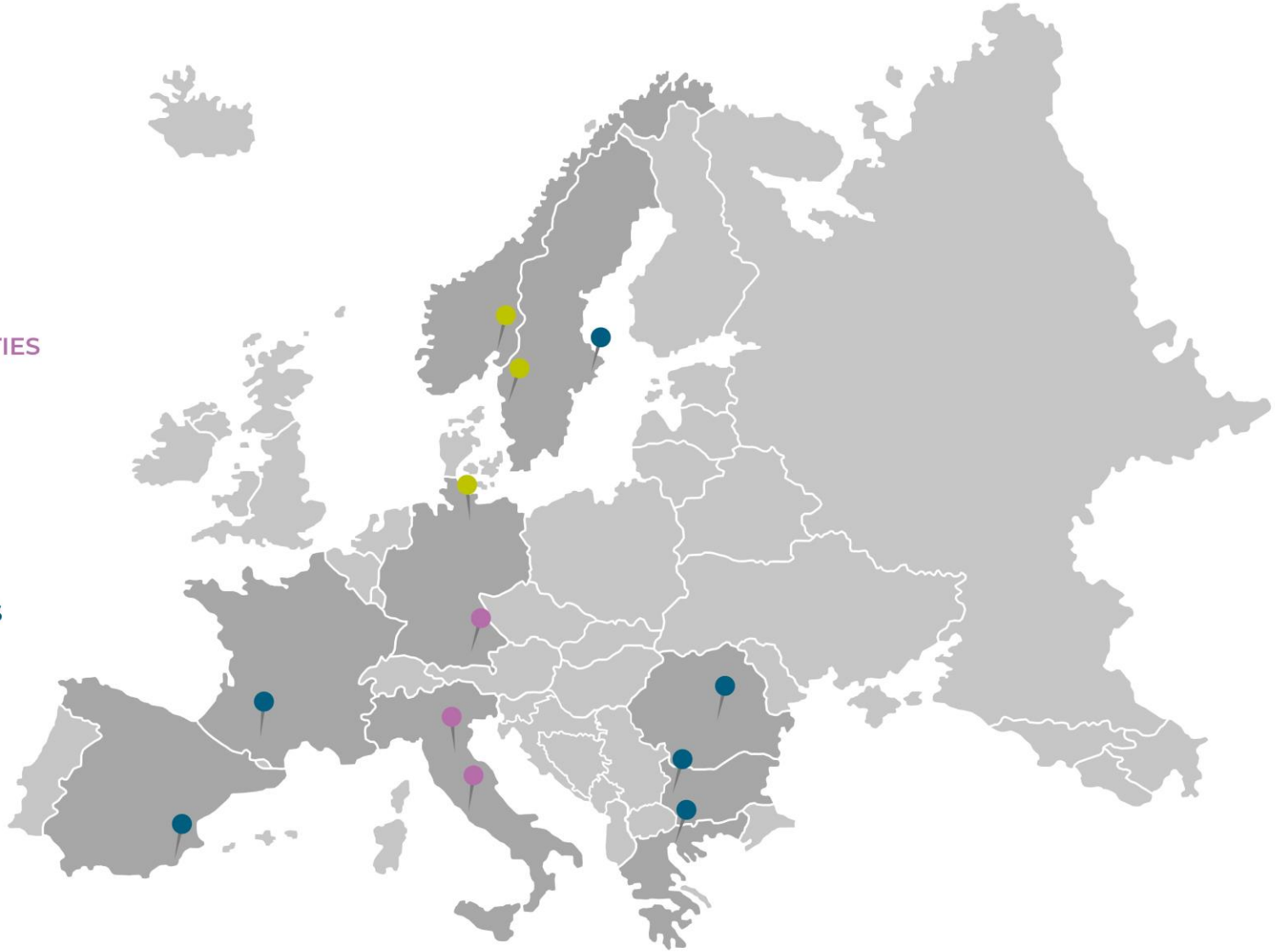
REPLICATOR CITIES

- Munich
- Rome
- Bologna

3

CASCADE CITIES

- Thessaloniki
- Toulouse
- Stockholm
- Brasov
- Murcia
- Sofia



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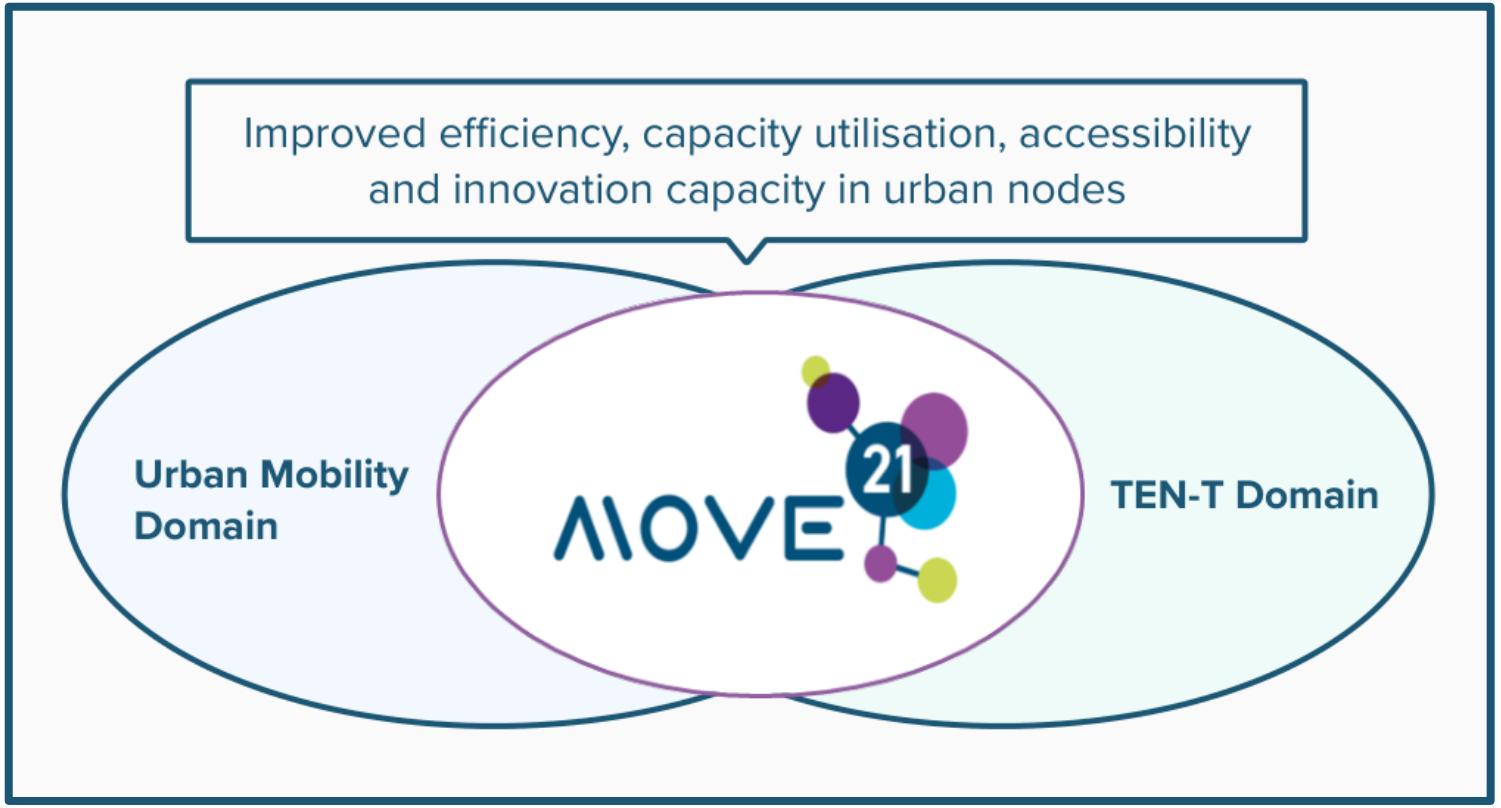
Integrated approach: people and goods

- **Deploy innovations**
  - Integrated transport services for passengers and freight in urban mobility and with connections to the Scan-Med TEN-T corridor
- **Foster capacities in urban nodes**
  - Innovation capacity, policy coherence, new governance models and agreements
- **Develop the Scan-Med Observatory**
  - Peer group and interface between local and TEN-T levels with focus on governance collaboration



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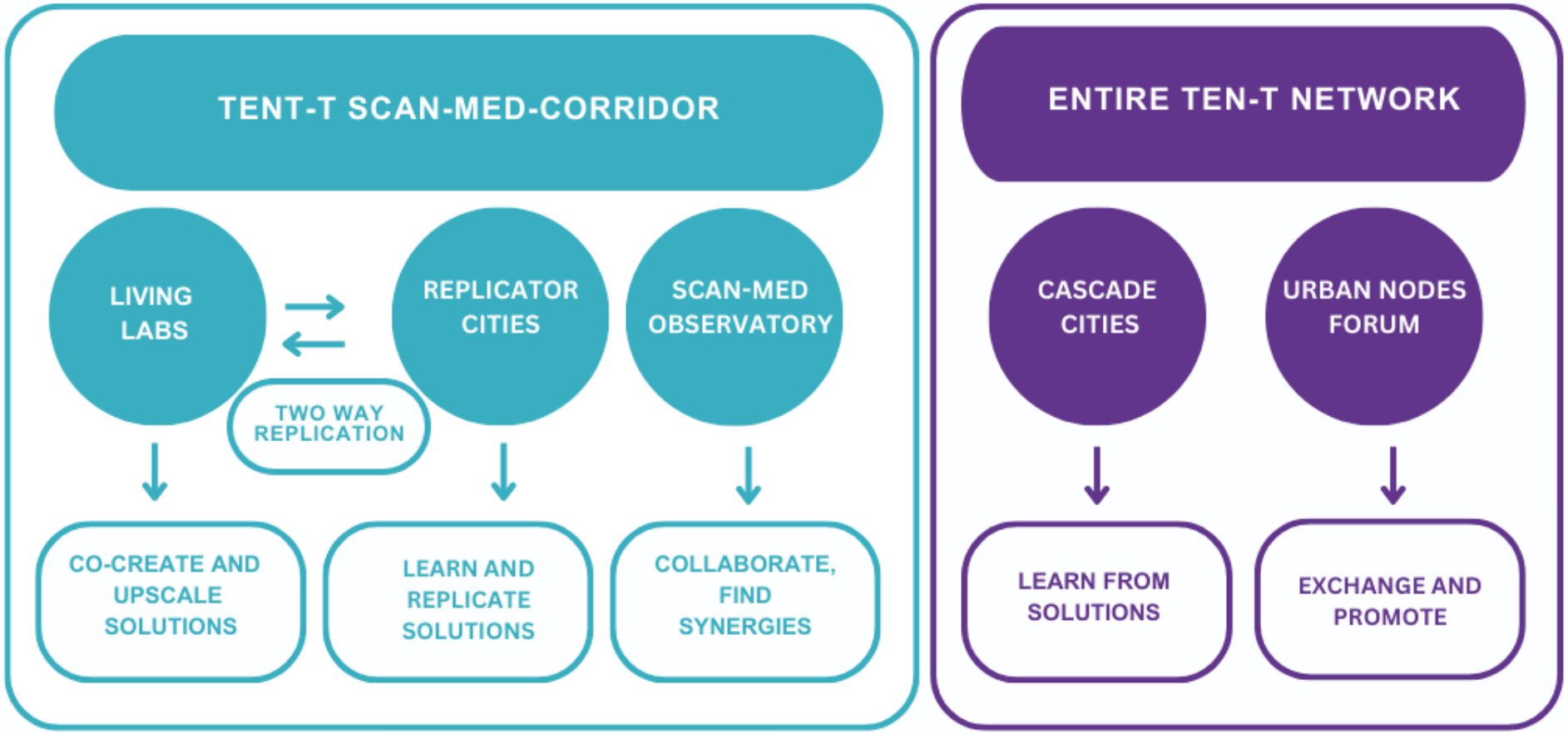
MOVE21 URBAN NODES AND TEN-T CORRIDOR APPROACH



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Deployed innovations

On-going pilots with ex-durante evaluation in spring 2024

Networks of multimodal hubs, dynamic hubs, park and bike, multifunctional hubs, standards (All six cities)

Cargo-bike last mile deliveries, consolidation centres, cargo-waste co-freight (All six cities)

Combined transport of people and goods, DRT for people and freight (Oslo, Hamburg)

Application integrations – PT and micro mobility, park and bike (Oslo, Gothenburg)

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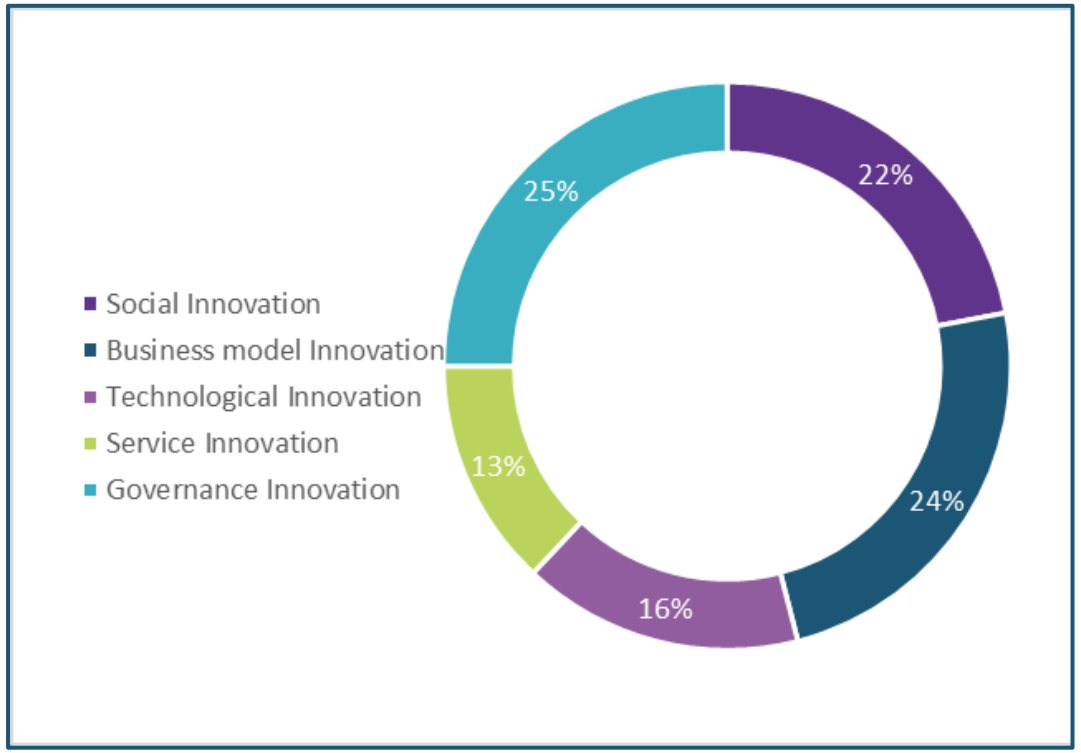
Types of innovations

Various types and sizes – over 100!



- ✓ **Social** – solutions that improve the welfare and wellbeing of individuals and communities
- ✓ **Governance** – better ways to organise and govern for improved provision of goods and services, including co-governance and partnership models, innovation capacity in government and policy innovation
- ✓ **Business** – new or improved business processes for business functions (production, distribution and logistics, marketing and sales, information and communication systems, administration and management, product development, pricing and revenue models)
- ✓ **Technological** – new products and processes or technological changes of products and processes
- ✓ **Service** –new service products, processes that improve user experiences

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Foster capacities in urban nodes

Reflective monitoring to evaluate and improve

- Long-lasting innovation co-creation partnerships
  - Policy and measures co-creation
  - Stakeholder involvement
- Innovation capacity; three pillars
  - Organisation
  - Technology, data and knowledge management
  - Partnerships
- Policy coherence
  - Development of integrated policy responses
  - Removing barriers

Ex-ante results

- Perceived improved understanding of governance drivers and barriers (average score of 3.7 on 5-point Likert scale)
- Increased innovation capacity (average score of 3.6 on 5-point Likert scale)
- Estimated new types of public-private collaborations: 20
- Estimated new or updated and more integrated policies: 8

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Some expected impacts

Ex-ante results

Impact Area 1: Long term decarbonisation in the Living Lab Cities

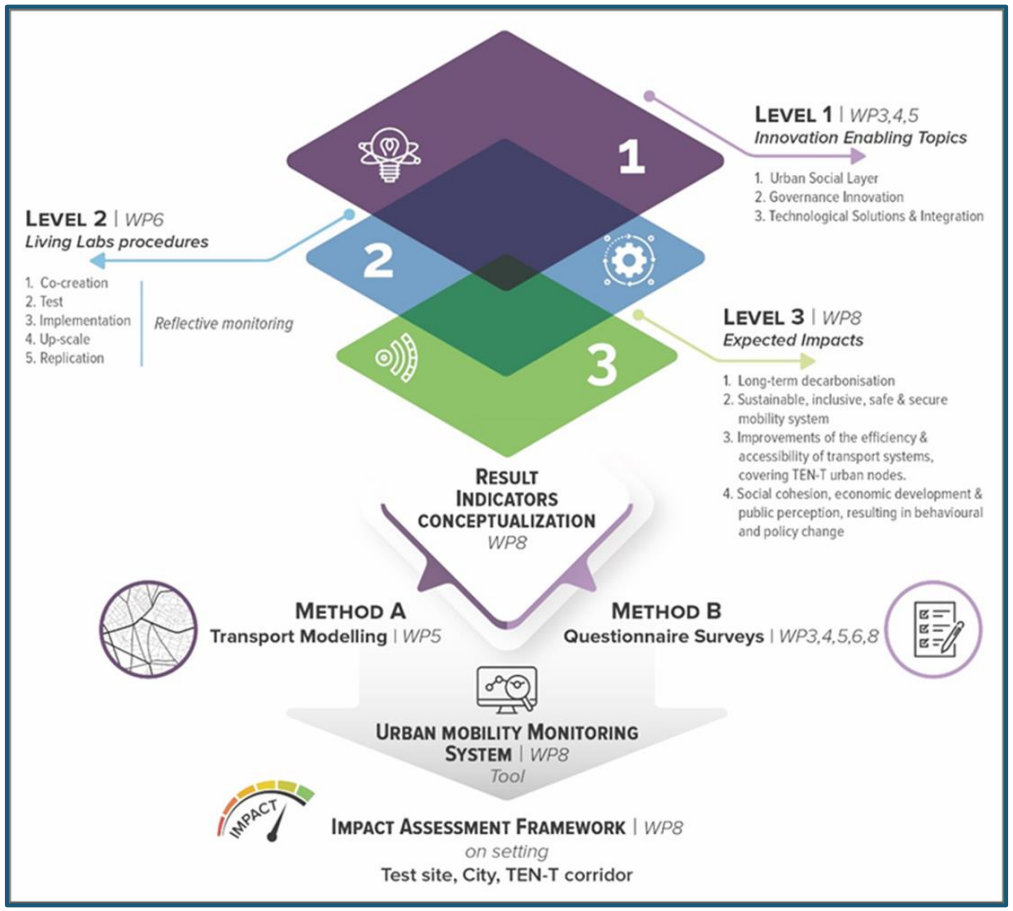
- 3-18% CO_2 reductions from local road transport
- 1-5% CO_2 reductions from local freight transport
- 3-15% NO_x reductions from local road transport
- 1-5% NO_x reductions from local freight transport

Impact Area 2: Sustainable, inclusive, safe and secure mobility systems

- 1-9% reduction in passenger transport related noise
- 1% reduction in freight transport related noise

Impact Area 3: Improvements of the efficiency and accessibility

- 12 (micro)hubs
- 52 improvements in existing hubs
- 2-15% increase in public transport use
- 2-27% modal shift to more sustainable modes



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Digital twins for Oslo, Gothenburg and Hamburg

What if scenarios

Example: Ten micro mobility hubs in Altona, Hamburg

1. **Shared cars, scooters and bikes**
2. **Shared cars, scooters and bikes + parking tariffs**
3. **Shared bikes only**

Scenario	Car	PT	Bike	Shared car	Shared bike	Shared kick scooter
Base	49.2%	37.5%	13.3%	0.0%	0.0%	0.0%
1 | Mobility hubs	48.5%	34.9%	12.9%	1.7%	1.8%	0.1%
2 | Mobility hubs and parking cost	46.2%	35.1%	13.5%	2.4%	2.5%	0.2%
3 | Mobility hubs shared bikes only	49.1%	34.8%	13.1%	0.0%	3.0%	0.0%

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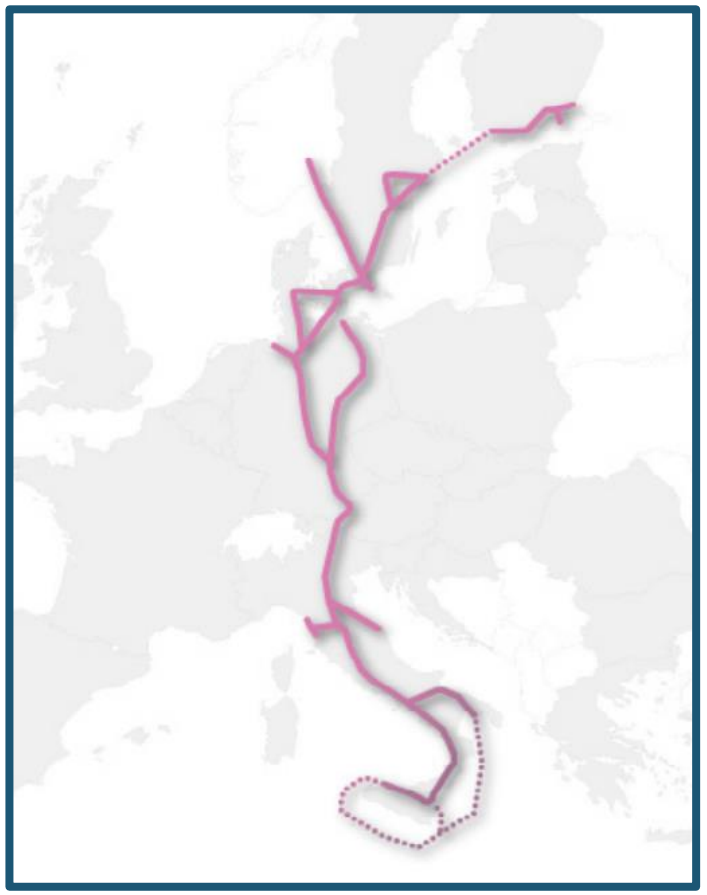
Scan-Med Observatory

A collaboration platform



What

- ✓ Testbed for governance coordination
- ✓ Voice of urban nodes

Why

- ✓ Need better integration of local and regional perspectives into TEN-T
- ✓ New TEN-T regulation coming spring 2024 – includes specific requirements and bigger role for 430 European cities

“We need to bridge this gap between long-distance transport and the local authorities”

-Dr. Anjes Tjarks
Senator for Transport and Mobility Transition of the Free and Hanseatic City of Hamburg

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Thanks!

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