HAW Hamburg

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Shared Mobility Hubs: Wie können Pilotprojekte skaliert werden?

Themenkongress Urbane Mobilität
7. Juni 2023, HAW Hamburg
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Interreg North Sea

Co-funded by the European Union

ShareDiMobiHub

Content

1. Intro to Shared Mobility Hubs (SMH)

2. Upscaling with
   Digital Participatory Platform (DPP)

What are shared mobility hubs?

- **Physical clusters** of **shared & electric mobility** modes
- Can **vary** in **size**, type of **location**, and **type** of offer
- **Tailored to local conditions** & needs: neighbourhoods, city centres

- Bring together **bicycles**, **e-bikes**, **e-cargo bikes**, **e-scooter**s and/or **e-cars** and charging infrastructure
- Existing **public transport** network may be connected
- Integrates through **MaaS** with transport system

Potential benefits of modal shift through shared mobility hubs

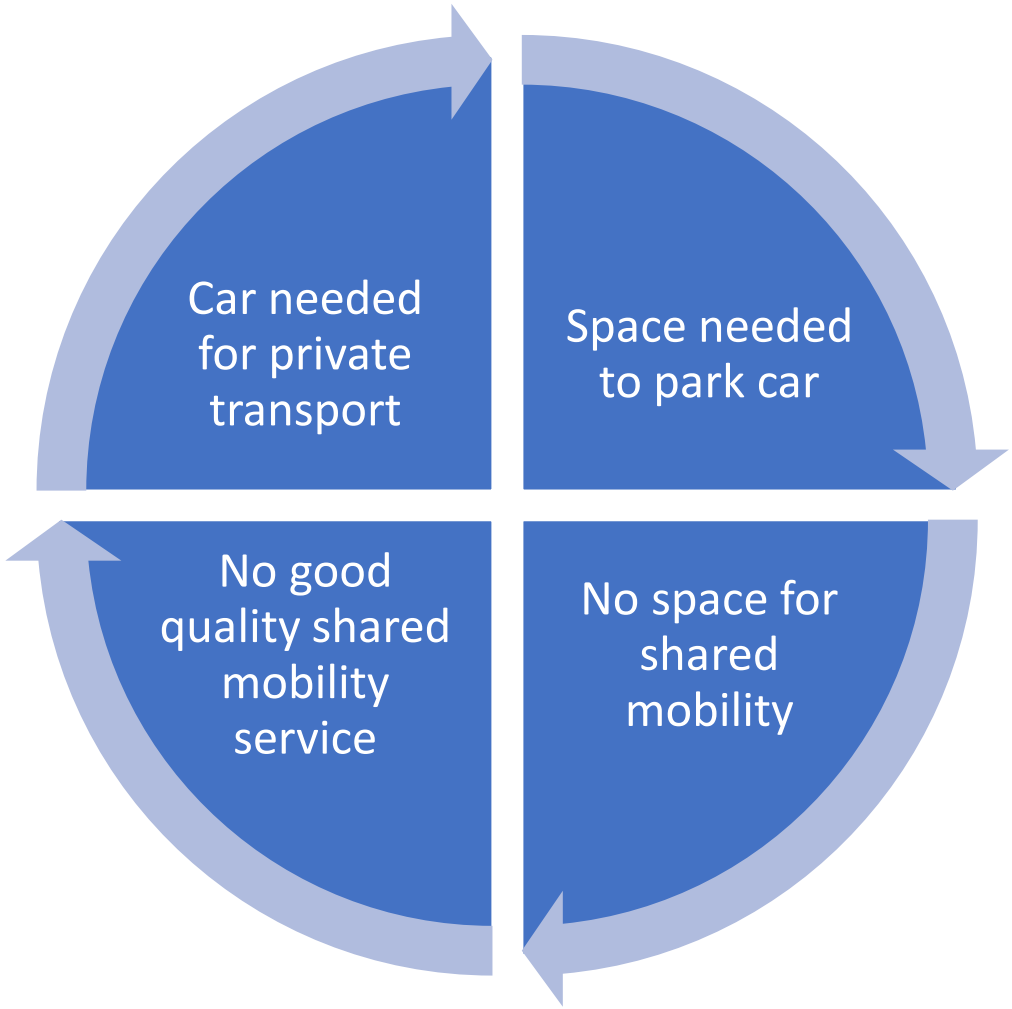
Reduce emissions trough modal shift

- Improve air quality
- Reduce carbon emissions
- Reduce traffic noise

Improve liveability though sharing resources

- Improve the quality of outdoor spaces
- Guarantee accessibility
- Facilitate efficient population growth
- …

Chicken & Egg Dilemma of Shared Mobility

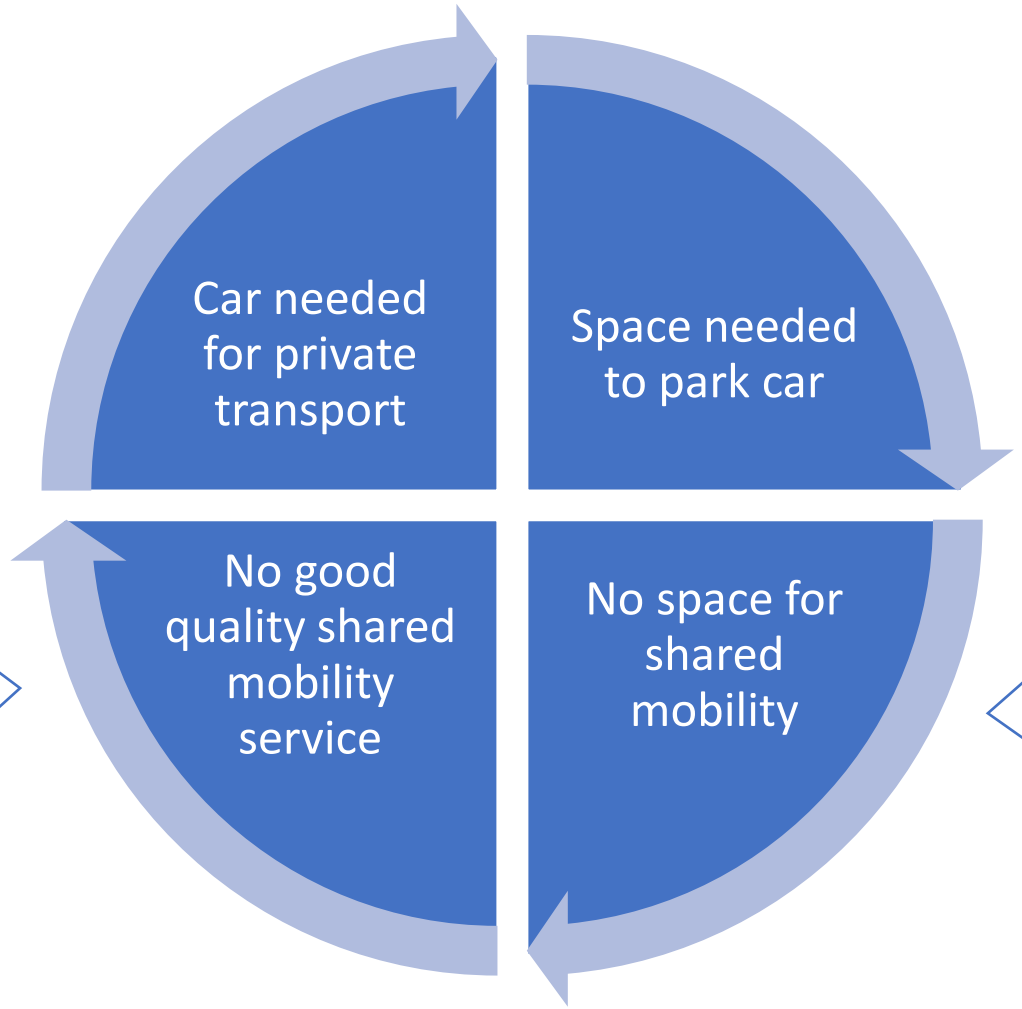


EU Interreg NSR Project ShareDiMobiHub

Communicate:
Share, connect, learn

Improve:
Integrate into general mobility networks

Scale up:
Provide central learning platform on SMH



Pilots in Cities
- Skien/Porsgrunn (NO)
- Tønsberg (NO)
- Rotterdam (NL)
- Leuven (BE)

Upscaling in Regions
- Amsterdam (NL)
- Vestfold &Telemark (NO)
- Leuven (BE)
- Utrecht (BE)
- Kopenhagen (DK)

ShareDiMobiHub aims to create a critical mass.

Partnership

Regional authorities and cities

PROVINCIE UTRECHT

leuven

The Capital Region of Denmark

Gemeente Amsterdam

Vestfold og Telemark FYLKESKOMMUNE

Gemeente Rotterdam

TØNSBERG KOMMUNE

PORSGRUNN KOMMUNE

SKIEN KOMMUNE

Transport authorities

Statens vegvesen
Norwegian Public Roads Administration

Vervoerregio Amsterdam

Universities

HAW HAMBURG

University of Antwerp
TPR | Department of Transport and Regional Economics

UNIVERSITY OF APPLIED SCIENCES UTRECHT

Network organisations

AUTODELEN.NET

mpact

POLIS
CITIES AND REGIONS FOR TRANSPORT INNOVATION

ShareDiMobiHub builds on past projects

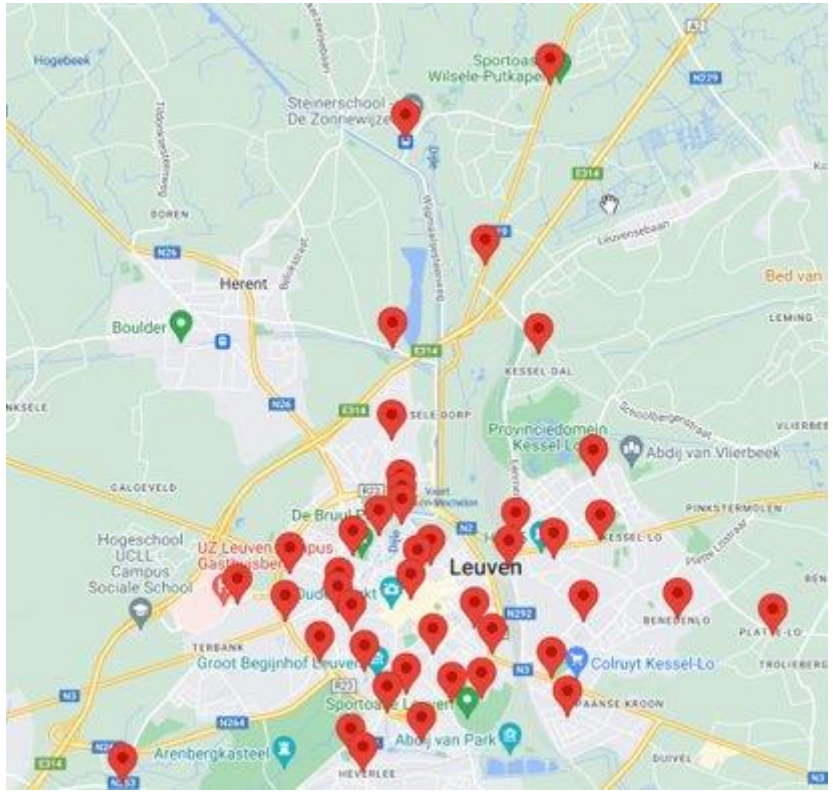
Building blocks providing input for pilots and upscaling actions

Standardized communication between Shared Mobility Providers and MaaS providers (TOMP-api) eHUBS project	Standardized communication between Shared Mobility Providers and public authorities (City Data Standard - Mobility) eHUBS project	Heat maps for best locations of shared mobility hubs based on data analysis (population density, public transport availability, etc.) eHUBS project	Templates for agreement between city authorities and shared mobility providers / regulatory framework and policy frameworks eHUBS project	Implementation guide for effective public-private collaboration Mobi-Mix project	Public participation in innovative mobility methods BSR-Electric project
Best practice reports about planning shared mobilty hubs in cities (bottom-up, top down or mixed approaches) eHUBS project	10 recommendations to influence behavior towards shared mobility and to convince car owners to try out shared mobility eHUBS project	Technical and functional requirements description of shared mobility hubs eHUBS project	Several examples of public tenders to select shared mobility providers or to license them to operate in a city eHUBS project	Framework to measure impact Mobi-Mix project	Demonstrating potential applications of various types of urban e- mobility BSR-Electric project
Location selection criteria methodology eHUBS project	Insights into different business models + understanding of business case of shared mobility providers versus city societal goals eHUBS project	Examples of branding and communication material and a toolkit for behavior change eHUBS project	Insights on most interesting target groups, travel behavior change and barriers for change (nudging techniques) eHUBS project	10 Golden rules for Shared Mobility + Book: A Planner's Guide to the Shared Mobility Galaxy Share-North project	Guidance for public authorities, companies, planners and transport providers for integrating sustainable solutions into urban transport strategies BSR-Electric project

Pilot Example: Leuven

Status (30/9/22)

https://leuven.be/mobipunten



- 42 HUBS (38 eHUBS)
- 30 Cargoroos (30 stations)
- [40 Urbees (5+1 stations, 2 with charging infrastructure) (till 30/6/22)]
- 24 EVs (cambio + partago) + 130 shared cars (all station-based)
- 124 shared bikes (PT)
- 60 P2P cars + 1 P2P e-cargo bike
- Extra: parcel lockers added at 14 eHUBS (pilot project ecozone: emission-free post and parcel delivery)

Leuven: Status-Quo

Michotte: bus + e-cargo bike

Leuven: Status-Quo

Haasrode/
Gasthuisberg:

bus + e-bikes

Leuven: Status-Quo

De Becker-Remy:

bus + e-cargo bike + EV + shared cars + parcel locker

Leuven: Status-Quo

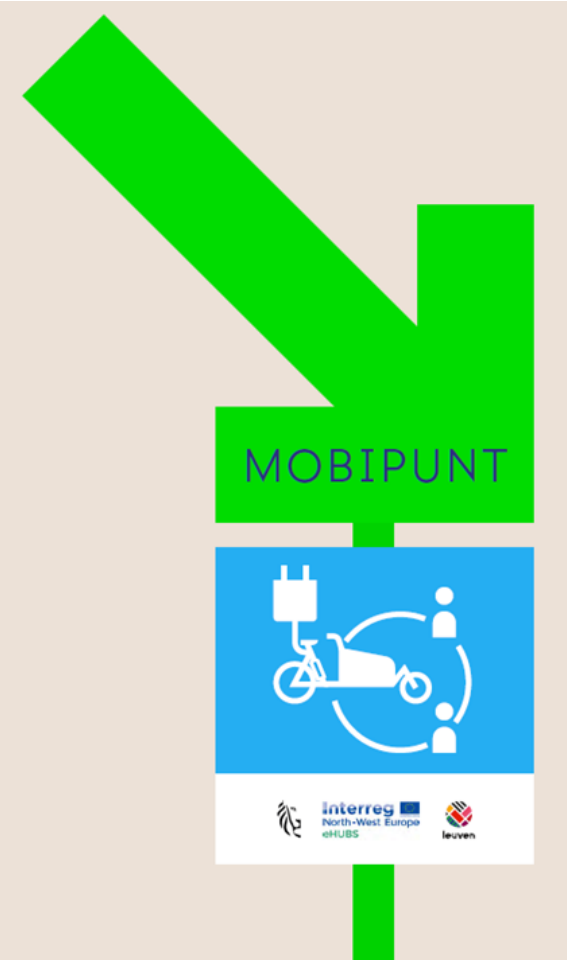
Rector de Somer:

Bus + e-bikes+
e-cargo bike +
additional services

Leuven: Status-Quo

Heverlee Station: train, bus, bikes, e-bikes, e-cargo bike and cars

Leuven Challenges: increase uptake



- **More and better offer**
  - More EVs, E-cargo bikes, E-bikes
  - More eHUBS on the longer term
- **More demand**
  - Nudging
  - MaaS
  - Specific target groups
  - Mixed user groups
- **Policy**
  - Evidence-based policies
  - More integration (e-mobility, shared and multi-modal mobility, urban logistics, smart city, public works)

Pilot's goal: Creating a sense of necessity -> to let them experience

Pilot Example: Rotterdam Mobility Challenge

New Hubs

- 7 providers shared bicycles, scooters, cargo bikes
- 6 providers shared electric car (small, large, vans)
- Public transport

Mobility challenge: 6 month in 2 districts

- Residents opt to not use car for 1 to 6 months
- Free car parking in municipal car park
- Costs covered for owned car
  + shared transport budget

Involvement

- Convert freed-up parking spaces (districts decide on usage)
- Districts decide to keep / discard after evaluation
- Other districts may decide to scale up

Content

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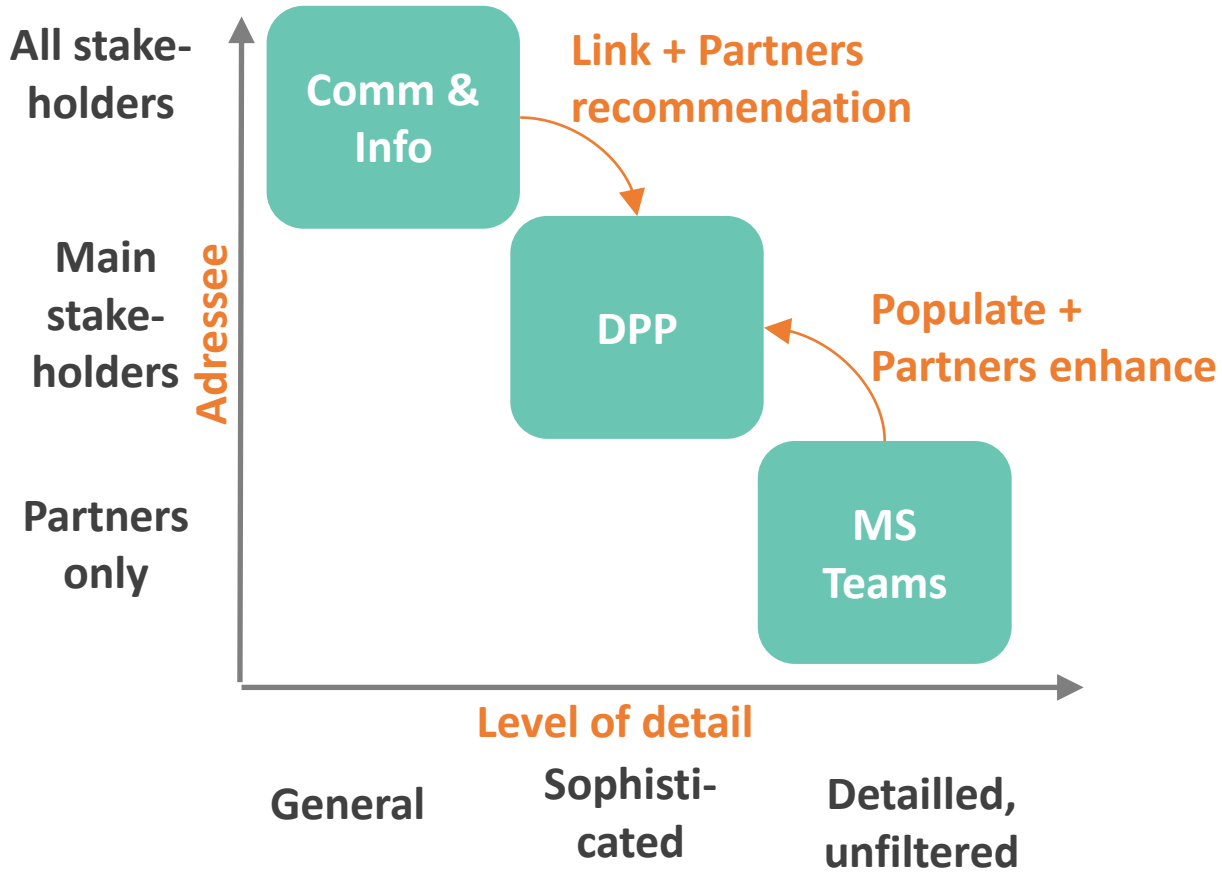
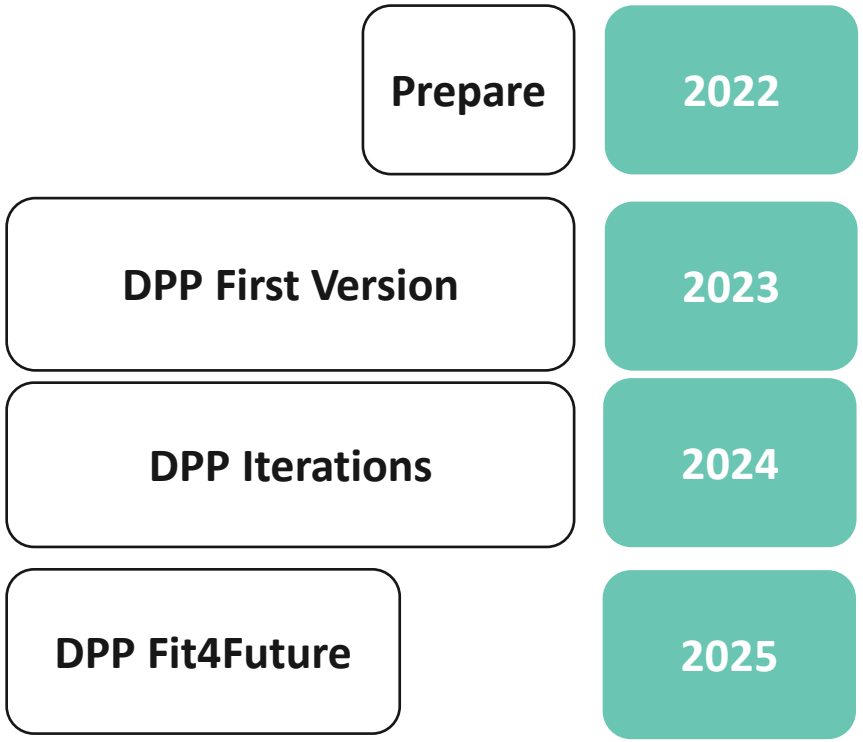
DPP Overview

Separation of key functions



Roadmap DPP



Method: Towards a DPP

Partner survey (Jan 2023) → Workshop Ghent (March 23) → Stakeholder survey (Mar 23)

Methods Partners' Survey

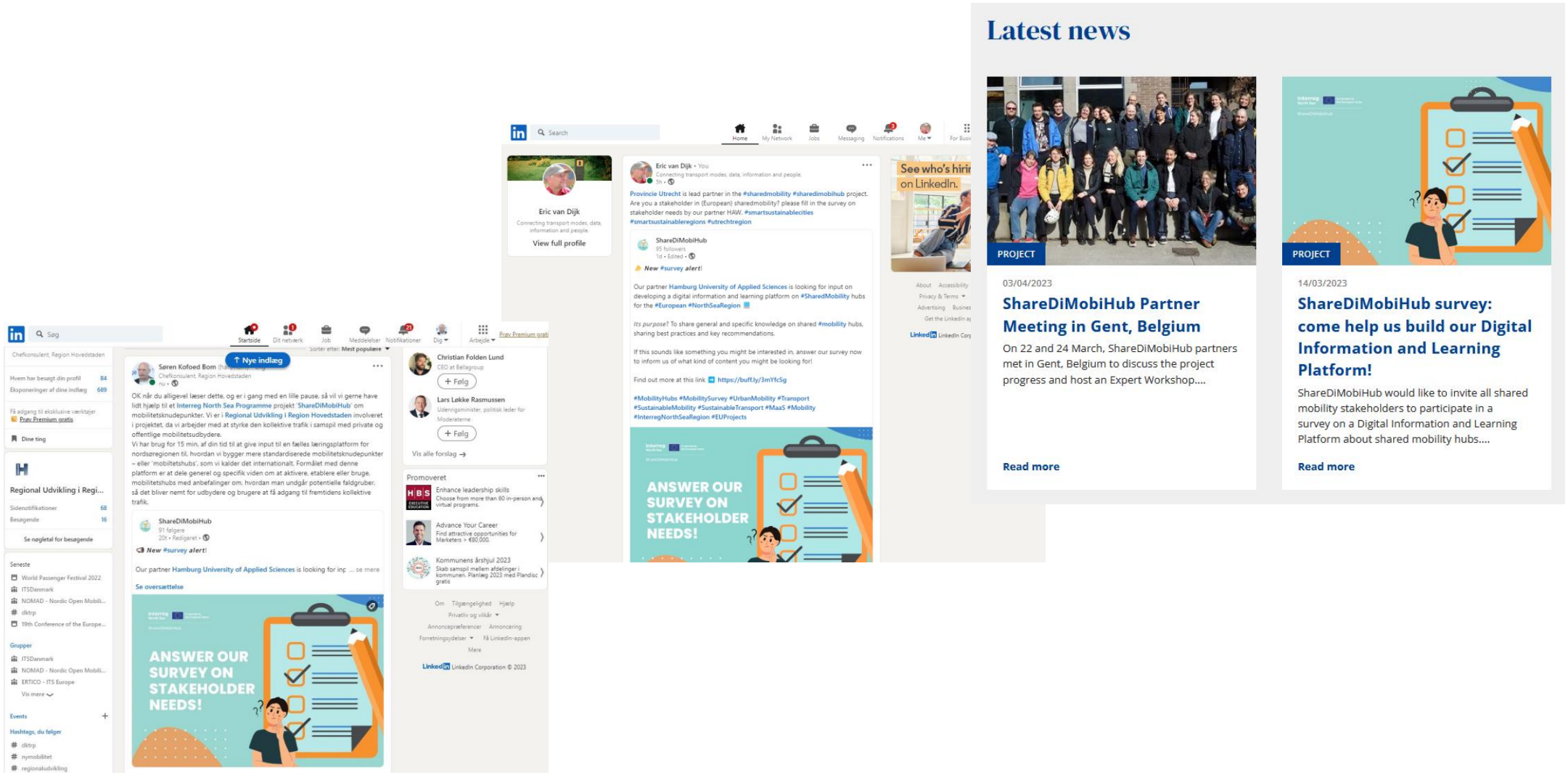
1. Survey with **11 questions**
2. Only **partners** addressed
3. **3 weeks** survey period (23. Jan to 12. Feb 2023)
4. Mainly **open questions** to collect as much info as possible
5. Received 8 out of 16 replies (50%)
6. **Clustering** of answers by hand.

Methods Stakeholder Survey

1. Online-Survey with **7 questions + subquestions**
2. Network / Public addressed
3. **3 weeks** survey period (10. Mar to 31. Mar 2023)
4. Mainly **multiple choice questions** to collect leverage auto-evaluation
5. Received 46 replies
6. **Bachelor thesis** to evaluate results

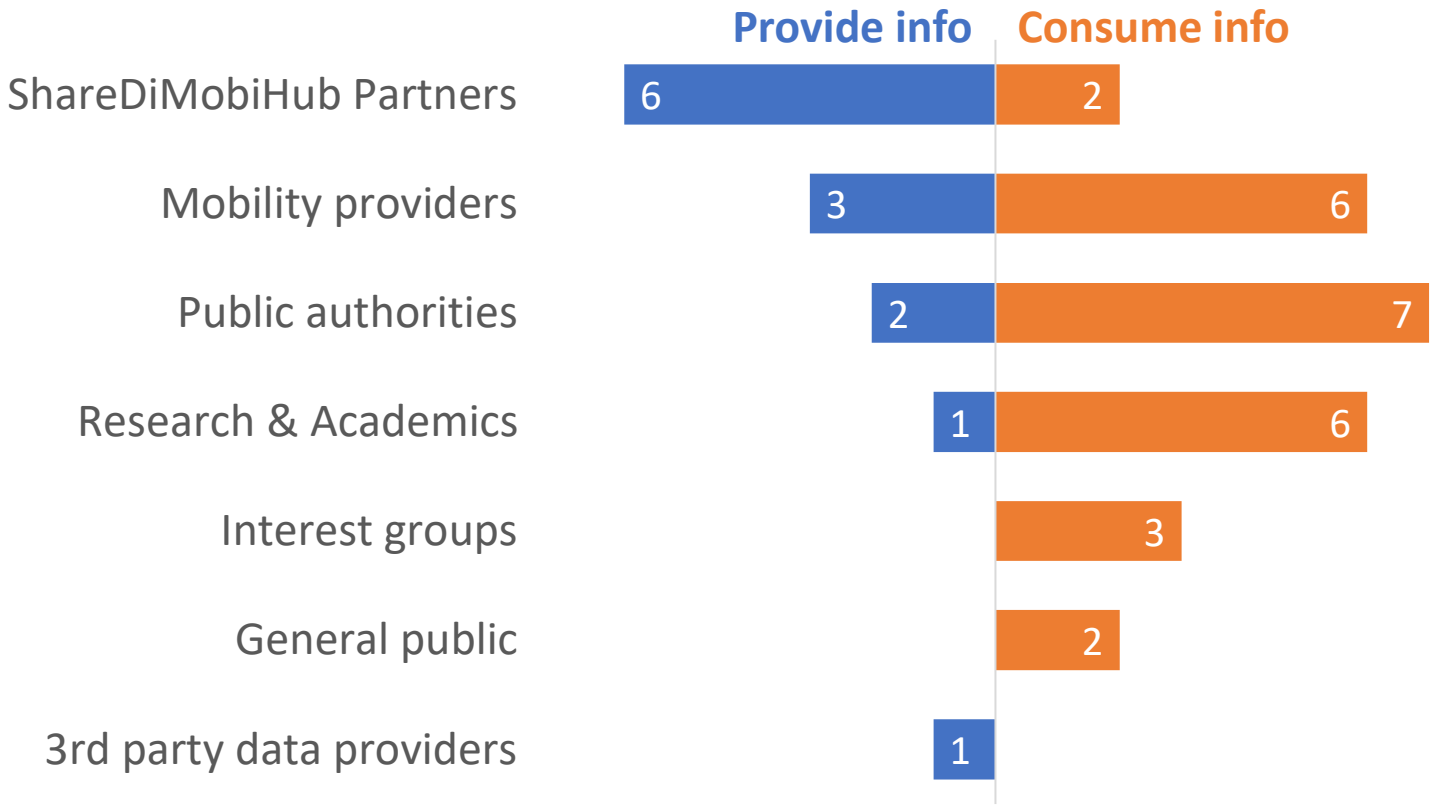
Stakeholder survey was shared ob websites & social media networks

Partner survey | Stakeholder survey



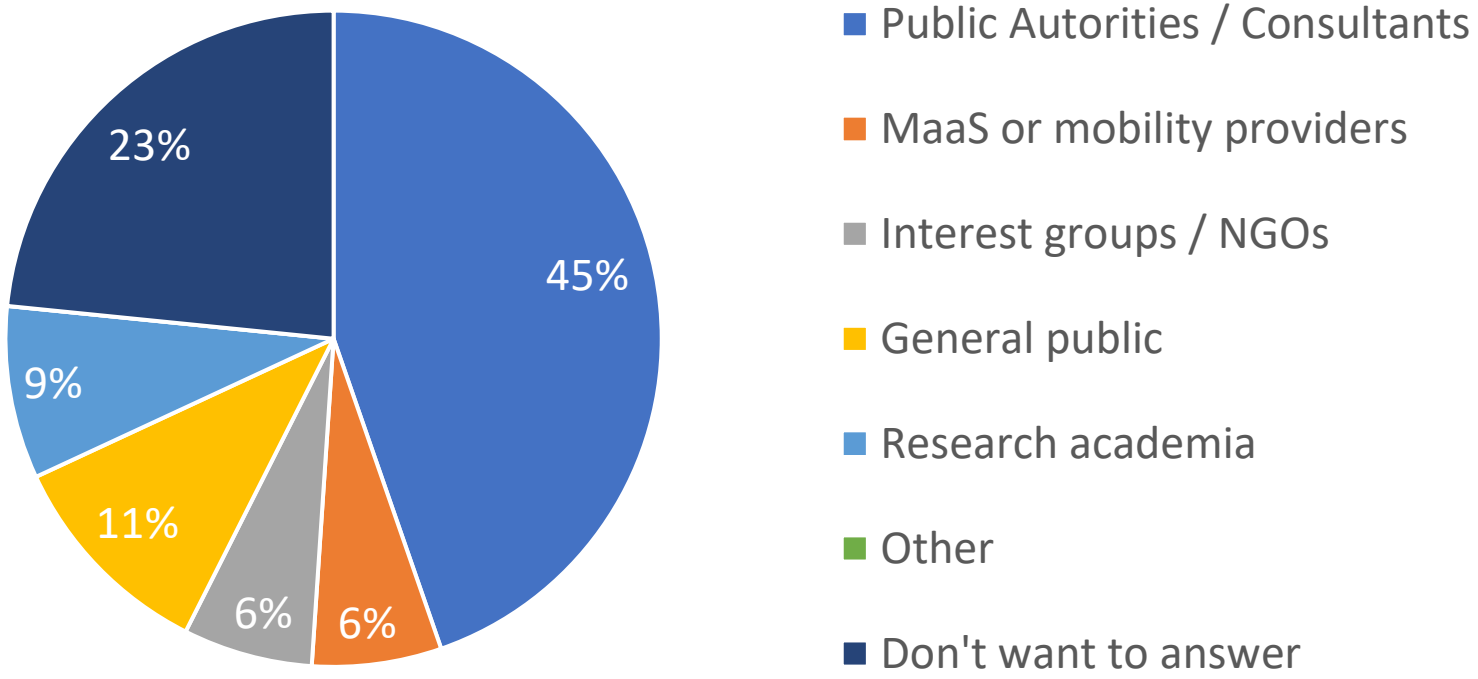
Partners‘ survey results:

Who interacts with the DPP?



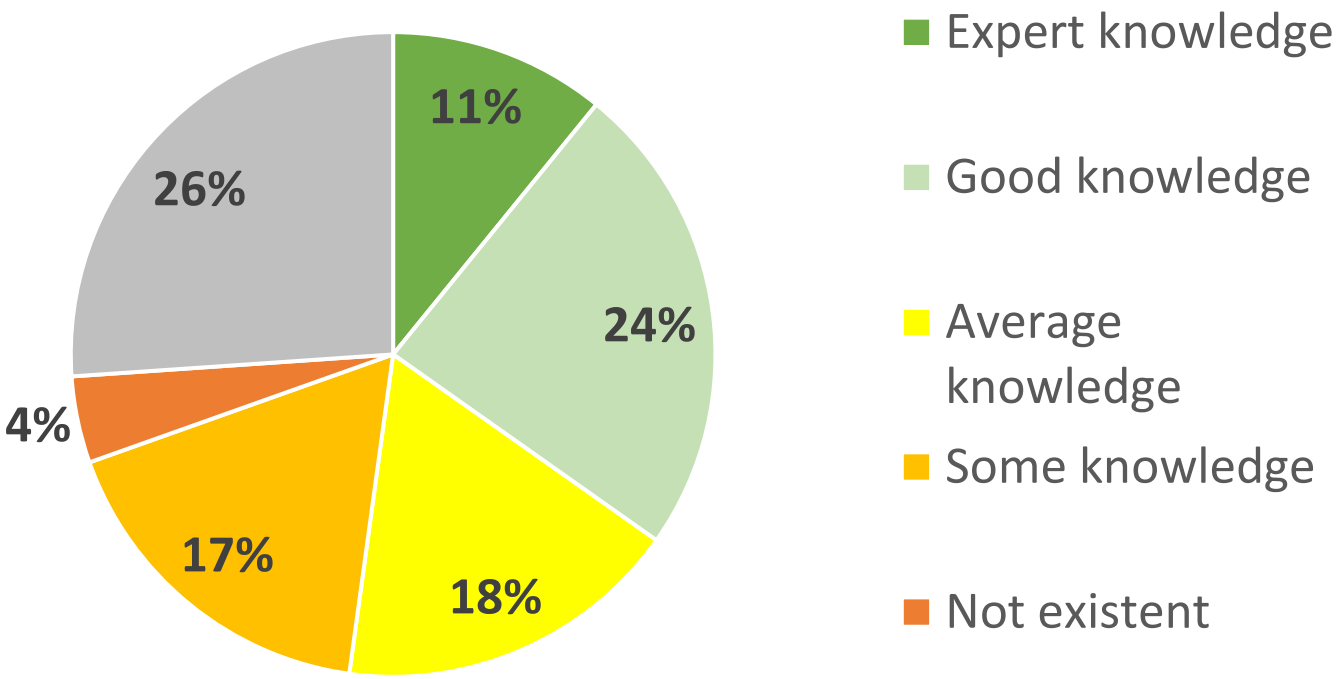
Stakeholder Survey

To which stakeholder group do you count yourself?



Stakeholder Survey

How do you rate your knowledge on Shared Mobility Hubs?



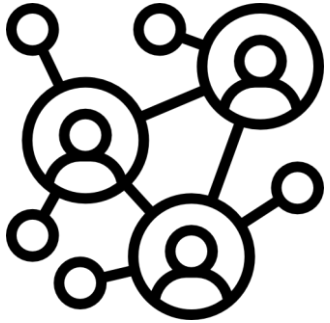
Stakeholder Survey

Learning Goals of the Stakeholder Groups

	Gain a general SMH overview	Receive detailed SMH expert information	Read other stakeholders' SMH experiences	Share SMH experiences	Grow a personal network for SMH	SMH Implementation Training				
Local and regional public authorities	x	x	x	x						
Mobility & Maas providers		x		x						
Interest groups, NGOs		x			x	x				
General public	x		x		x					
Research and academia	x	x		x						

Partners‘ Survey:
Does the DPP have a networking target?

1. No Networking,
only inform



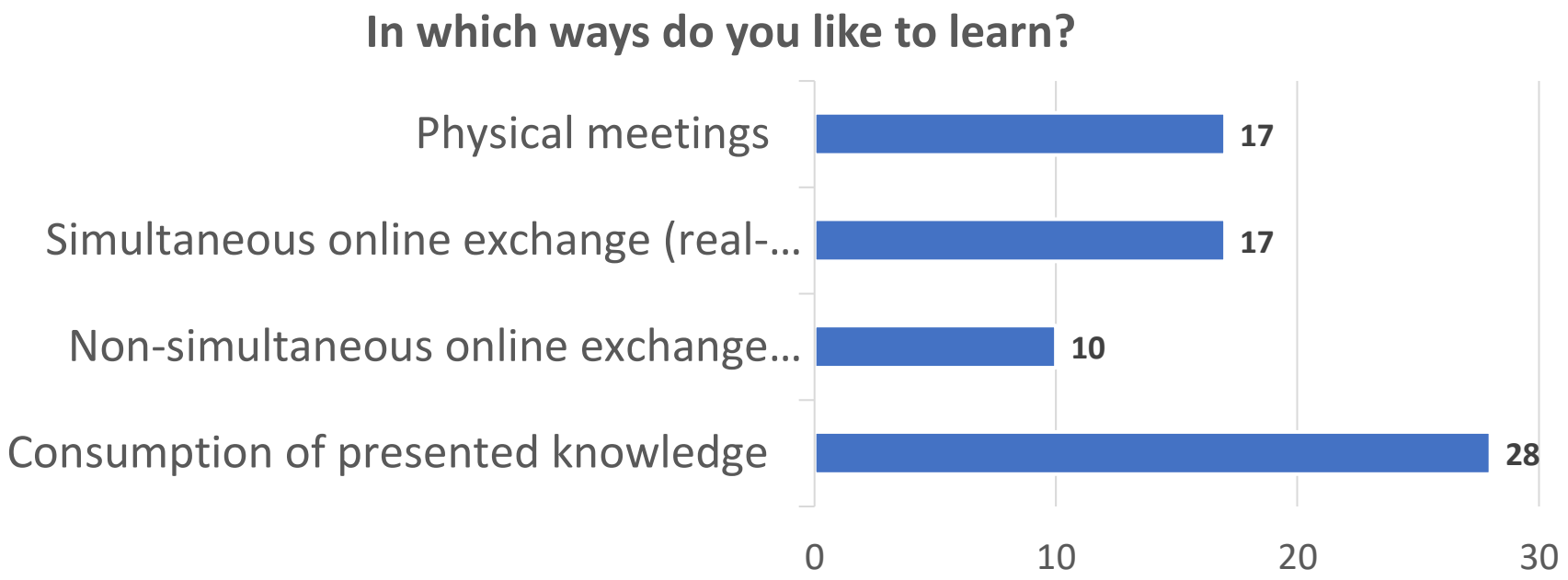
2. Basic Links
point to networks, i.e. MAAS Alliance, internal city networks

3. Deep Links
from SDMH examples to experts or responsibles for outputs, products, services

4. Active Networking
Build network of experts and cities with different levels of shared mobility

Images: Flaticon.com

Stakeholder Survey



Q: Who are the main stakeholder groups / who should be adressed?
A: Main stakeholders condensed into two personas

Emma

Mobility Decision Maker, Senior Level, Public transport officials in NSR

- **Prior knowledge:**
  Master level education, broad idea of SDMH, fluent in English
- **Motivation**:
  Improved decision-making capacity with regard to local/regional development
- **Capacity:**
  low due to heavy day-to-day workload:
  2-3 h max

Practical use for hands-on knowledge to decide on design, build and drive shared and digital mobility hubs

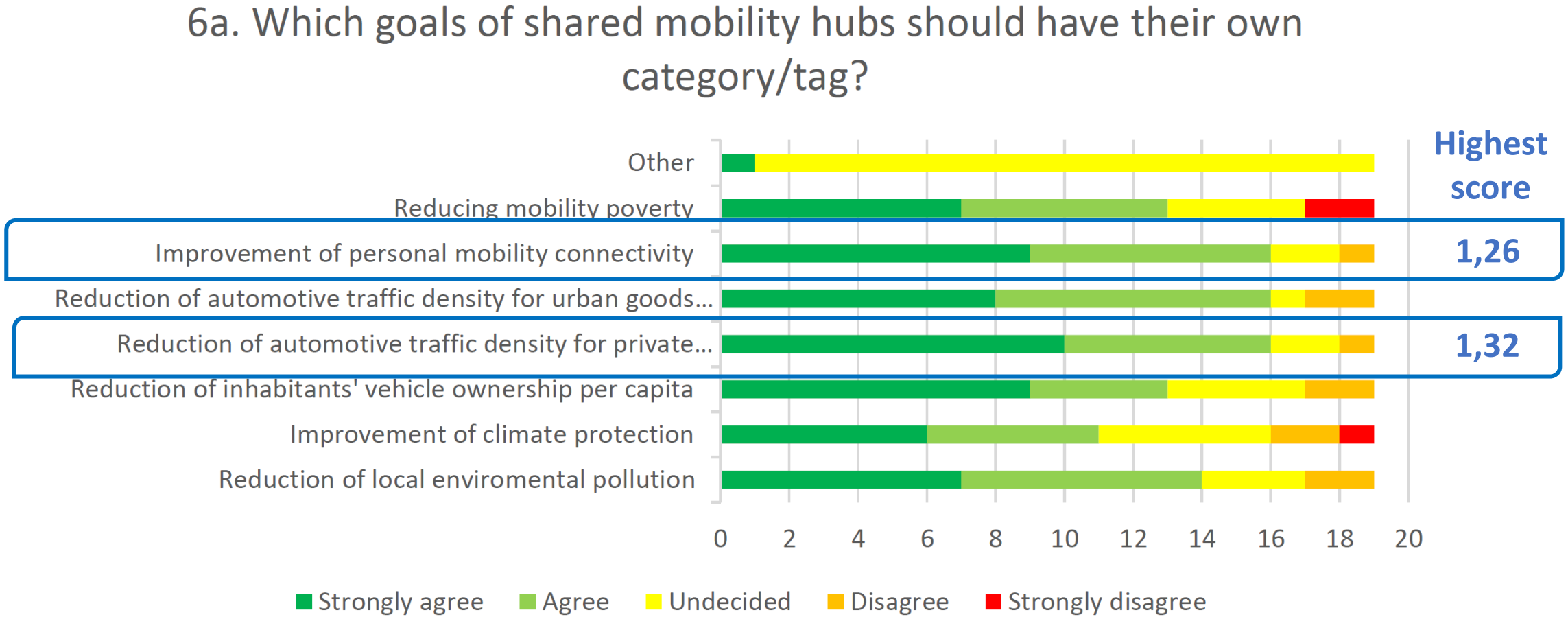
Hans

Young professional in SMEs, Civil Organisations / NGOs; Master student

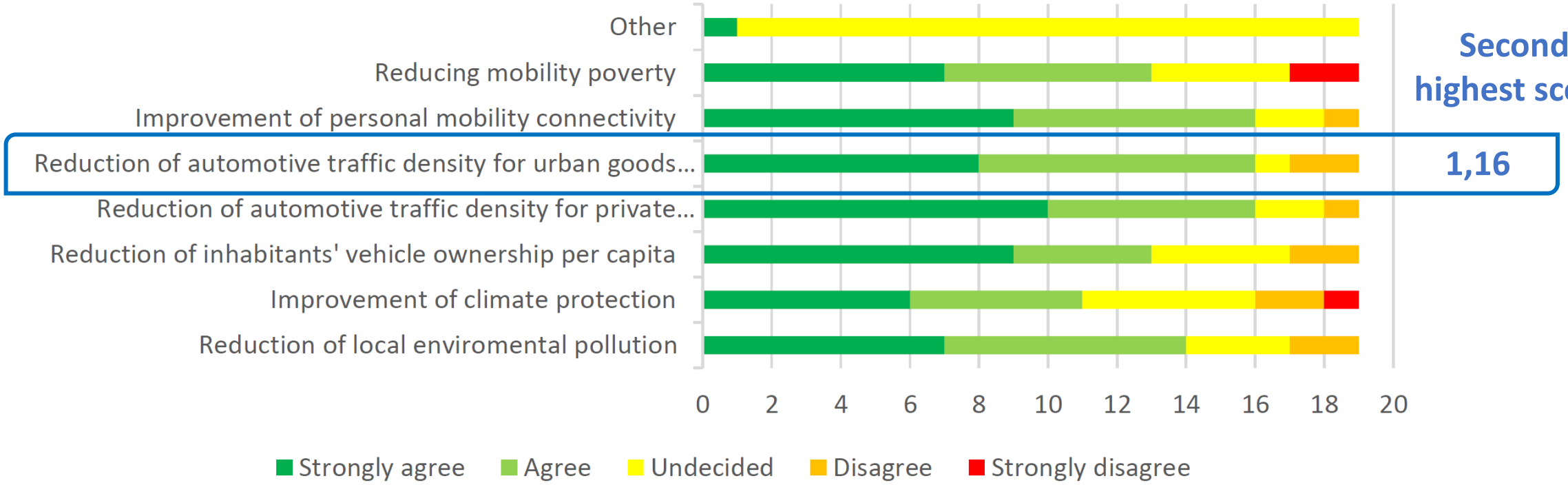
- **Prior knowledge:**
  Master level education, broad idea of SDMH, fluent in English
- **Motivation:**
  Contribution to improving and expanding mobility services on own local/regional scale. Networking and exchange of good-practices
- **Capacity:**
  medium/large: 60 h max

Involved in operations, with exploitation and upscaling potential

Stakeholder Survey: Example content related question



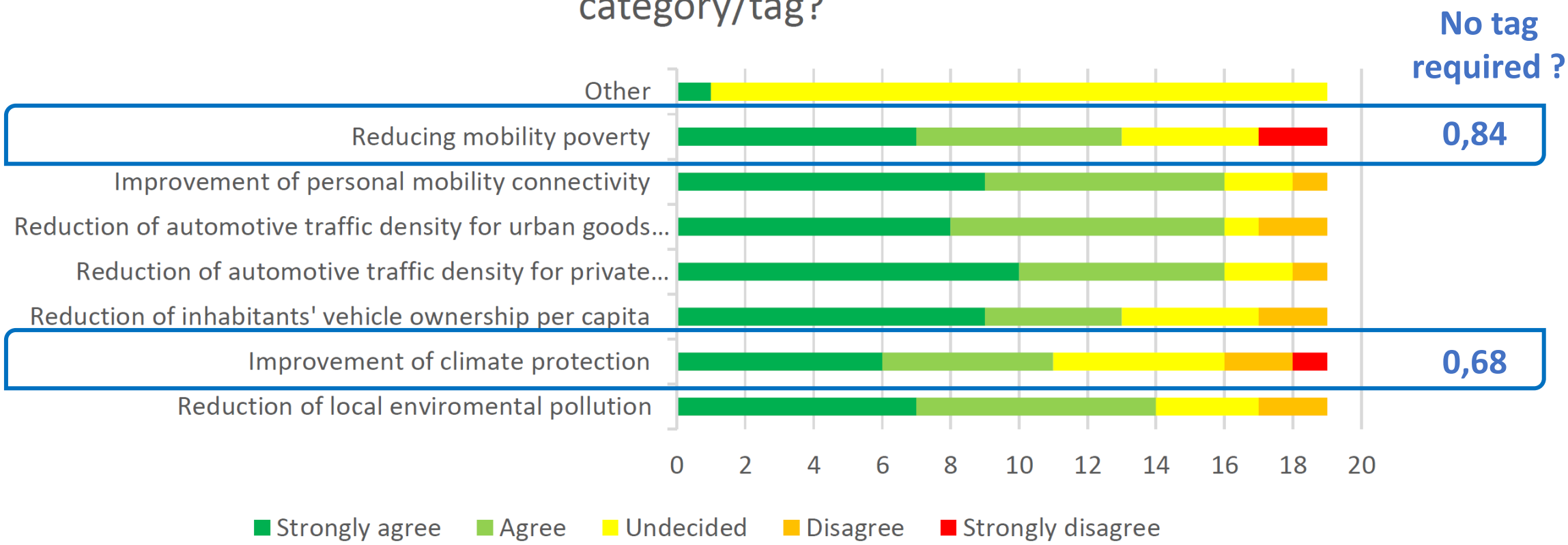
6a. Which goals of shared mobility hubs should have their own category/tag?



Second highest score

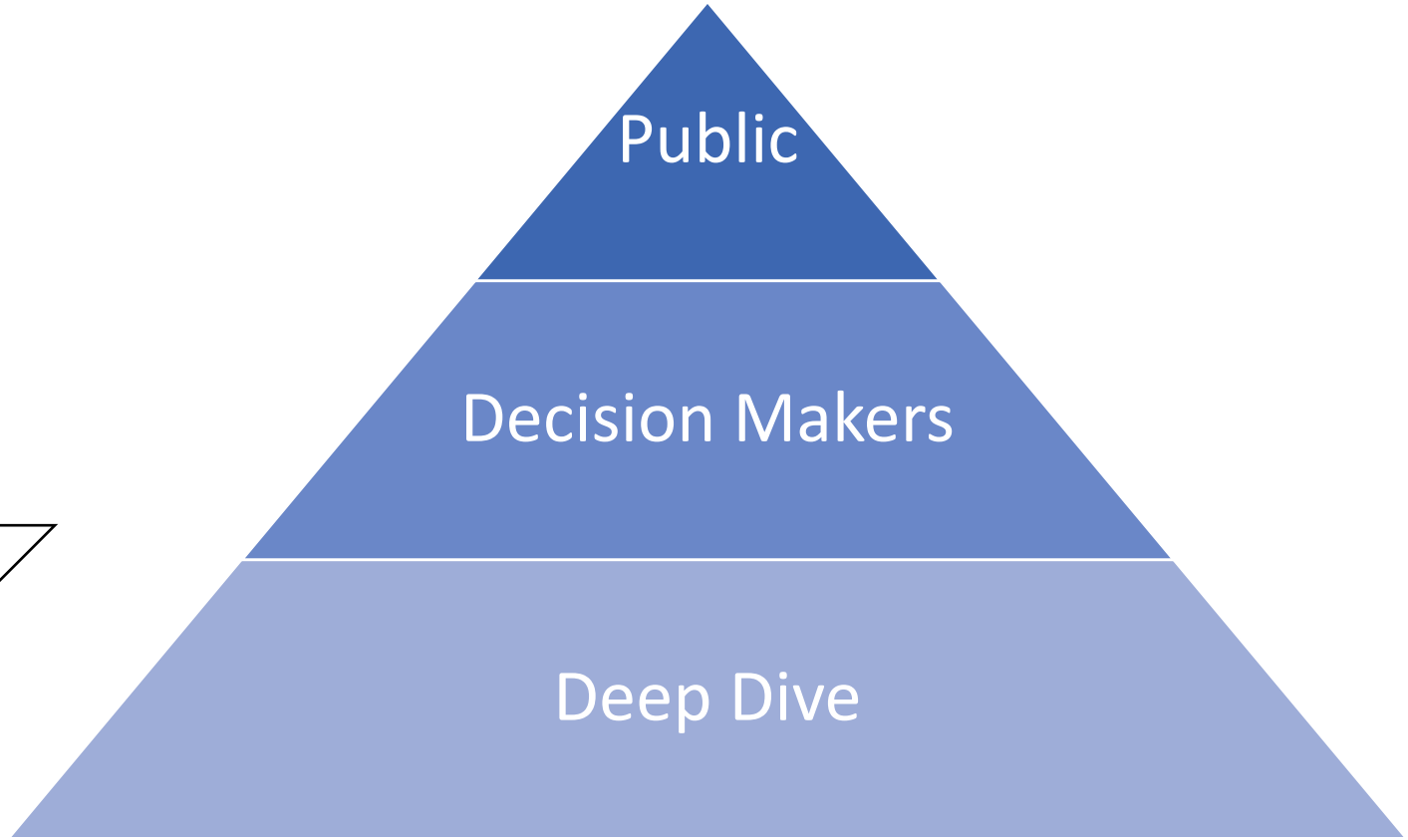
1,16

6a. Which goals of shared mobility hubs should have their own category/tag?

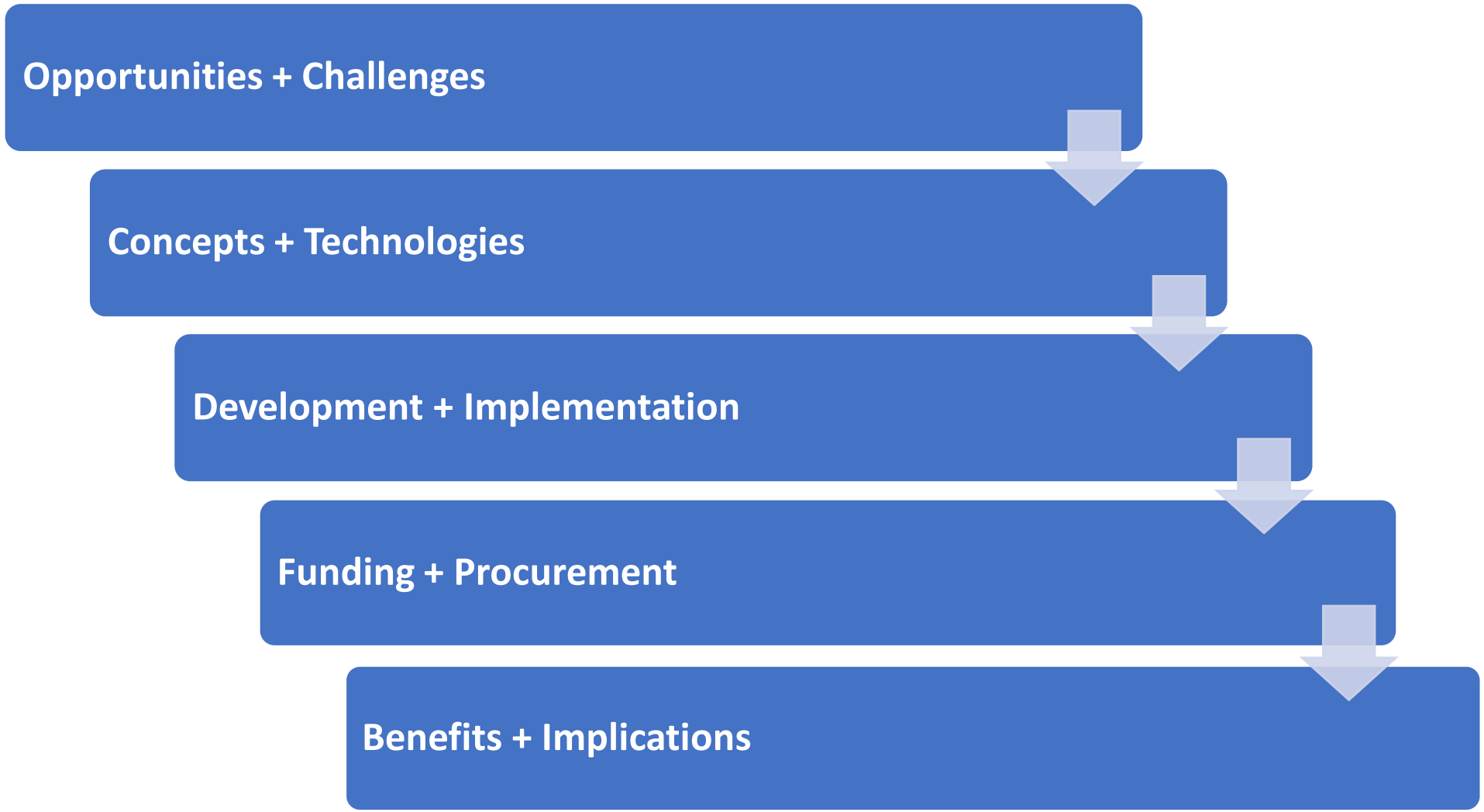


Q: Complexity & Content
A: Three main levels

Increasing complexity moves "outside-in" from European context to concrete assessment action on local/ regional level



Q: Storyline and Curriculum:
A: Pre-phase, sequence of 5 increasingly complex modular assignment cycles, and fade-out



Summary

Shared Mobility Hubs

- Many best practice examples & knowledge
- Chicken & egg problem not overcome
- Needs integration & upscaling

Quelle: https://www.hvv-switch.de/de/hvv-switch-punkte/

Upscaling with DPP

- Bring together stakeholders
- Enable regional learning
- Include urban goods
- HAW Hamburg is proud take part in shaping sustainable urban mobility

Thank you

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Co-funded by the European Union

Sources: All unnamed figures and graphics where provided by the ShareDiMobiHuib project partners