SmartHubs

TU WIEN raum move

Comparative analysis of Mobility Hubs SmartHubs Open Data Platform

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SmartHubs

https://www.smartmobilityhubs.eu/

Presentation ABC

A SmartHubs project and Integration levels

B Open Data platform – overview and technical insights

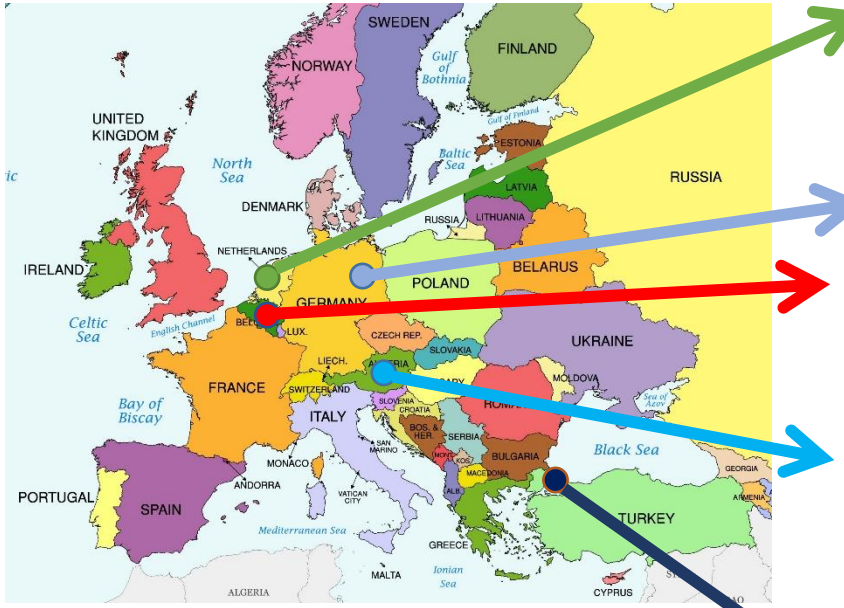
C Descriptive analysis

D ODP meets Smart Hubs Accesibility tool

E Learnings from the ODP-process and analysis

A - SmartHubs project and Integration levels

A - Smart Mobility Hubs as Game Changers



Living Labs and Associate partners

Rotterdam-The Hague (NLD): Gemeente Rotterdam, Gemeente Den Haag, MRDH, HTM, RET, NS Stations, CROW

Munich (GER): Munich PT (MVV), City of Munich, UPS

Brussels (BEL): Anderlecht, Brussels mobility

Vienna (AUT): Fed. Govt. Lower Austria, ITS Vienna region, Aspern-mobil LAB, Mobility Lab Graz, Stadt Umland Management Wien, 3420AG

Istanbul (TUR): Istanbul Metropolitan Municipality

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		Physical integration	Digital integration	Democratic integration
Smart Mobility Hub	4	Conflict free and place making	Integration of societal goals and policies, and consideration of universal design principles	Social learning
	3	Visibility and branding	Integration of service offers and consideration of universal design principles	Integration of different knowledge
	2	Wayfinding and consideration of universal design principles	Integration of booking and payment and consideration of universal design principles	Deliberative engagement of stakeholders, including (vulnerable) user groups
Mobility hub	1	Walking distance to shared and public transport, minimum inclusive design standards	Digital integration of information	Appropriate representation of stakeholder interests, no or limited attention for vulnerable user groups
Single mobility services	0	No physical integration	No digital integration	No stakeholder involvement and consideration of (vulnerable) user needs

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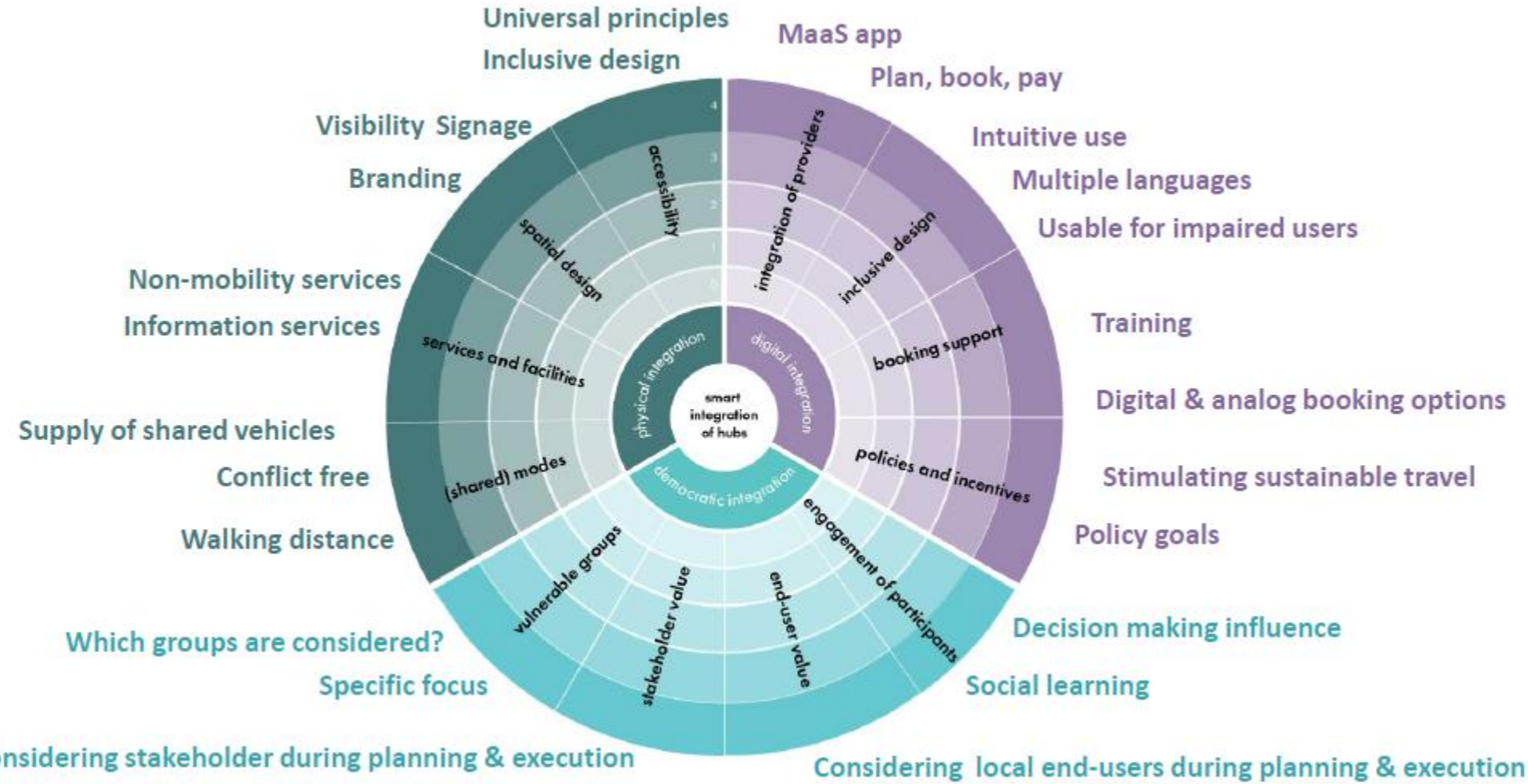
A - Factors/sublevels for integration levels



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B - Open Data platform – overview and technical insights

B - Smart Hubs Open Data Platform (ODP)

The ODP is the **first cross-project open data platform for mobility hubs** learning cases!

This Semantic-media Wiki based platform allows to …

… collect data on mobility hubs following a **standardized layout**

… **compare** similar hubs

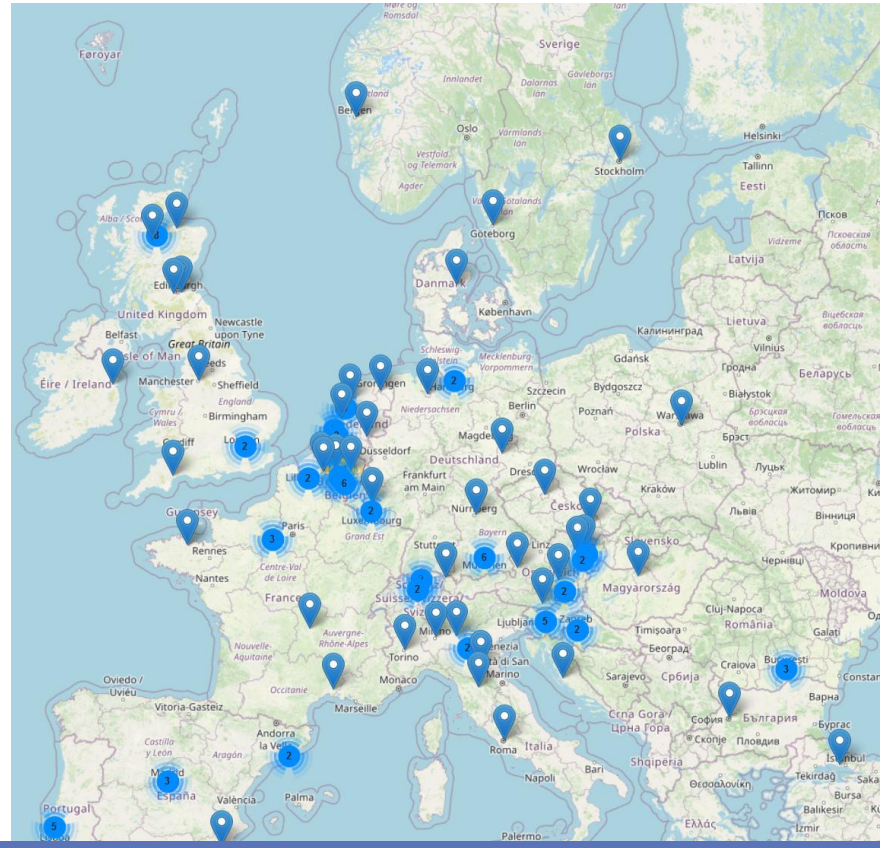
… analyze **integration levels** connected to other characteristics

… generate cross-network **overview** in regions

… download **data** for further analyses for everyone

… collectively edit and contribute!

data.smartmobilityhubs.eu



in the database: **156** Hubs (**9** of which are Case Studies in the SmartHubs Project), **26** Mobility Hub Networks

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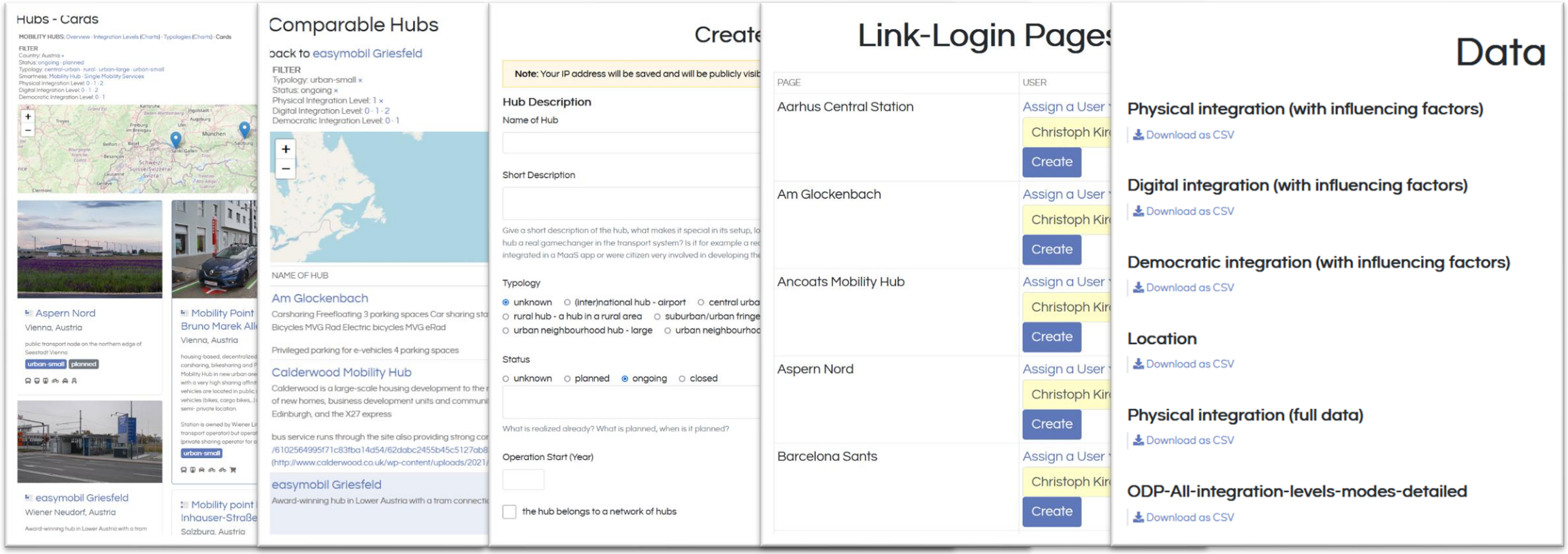
B - Functionalities of the ODP

Discover *Compare* *Add hubs* *Verify hubs* *Export data* *…*



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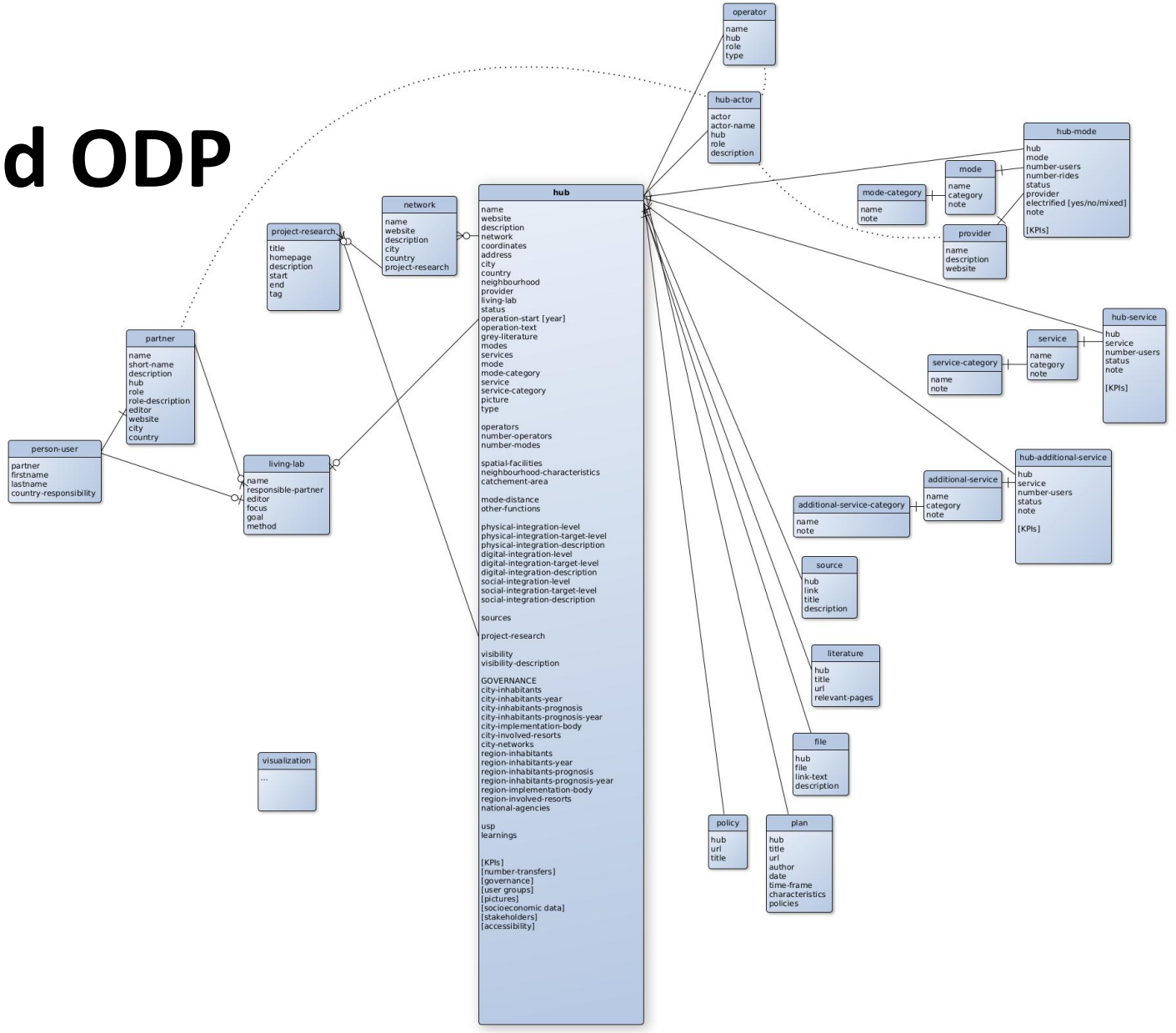
B - Technical background ODP

- Technical setup was provided by mobyome KG (SME from Austria)
- ODP uses Semantic-media Wiki, including open source frontend (e.g. Timeless, MonoBook, …) and backend (Semantic Result Formats, Matomo, …) extensions
- Specific extensions programmed and made available open-source (SmartHubs Semantic extension, LinkLogin, …)
- Multirelational database – see data model
- Limitations in available visualisations / analyses



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C - Descriptive analysis of Hubs in the ODP

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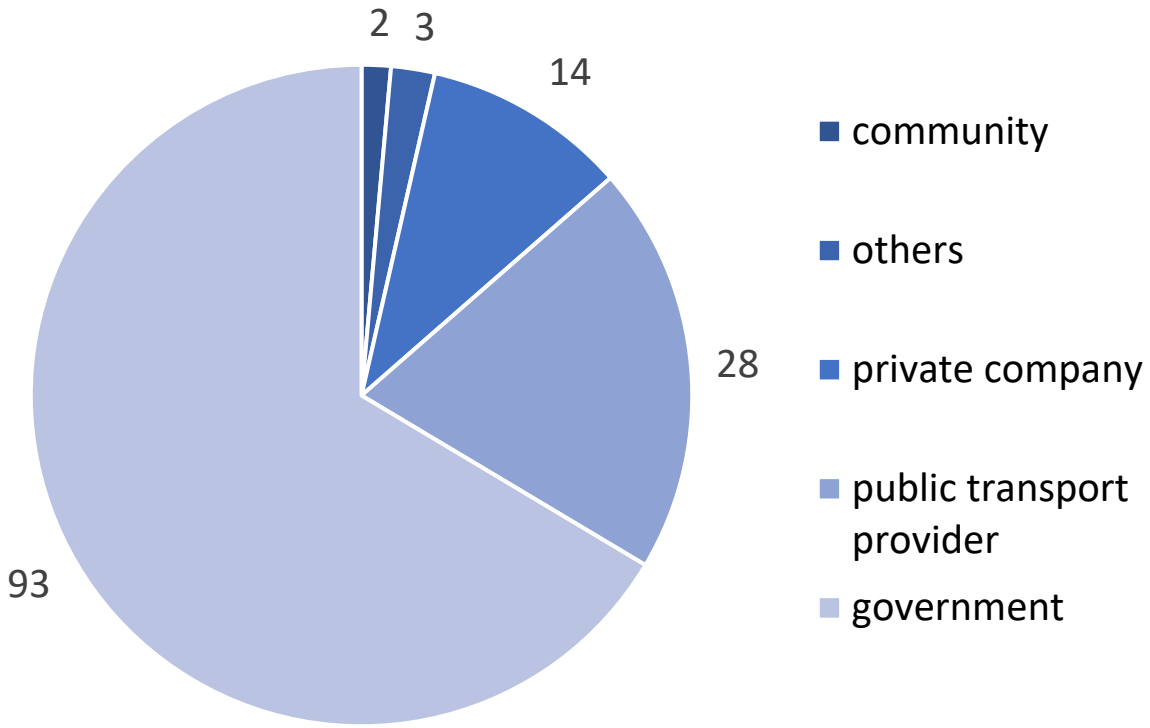
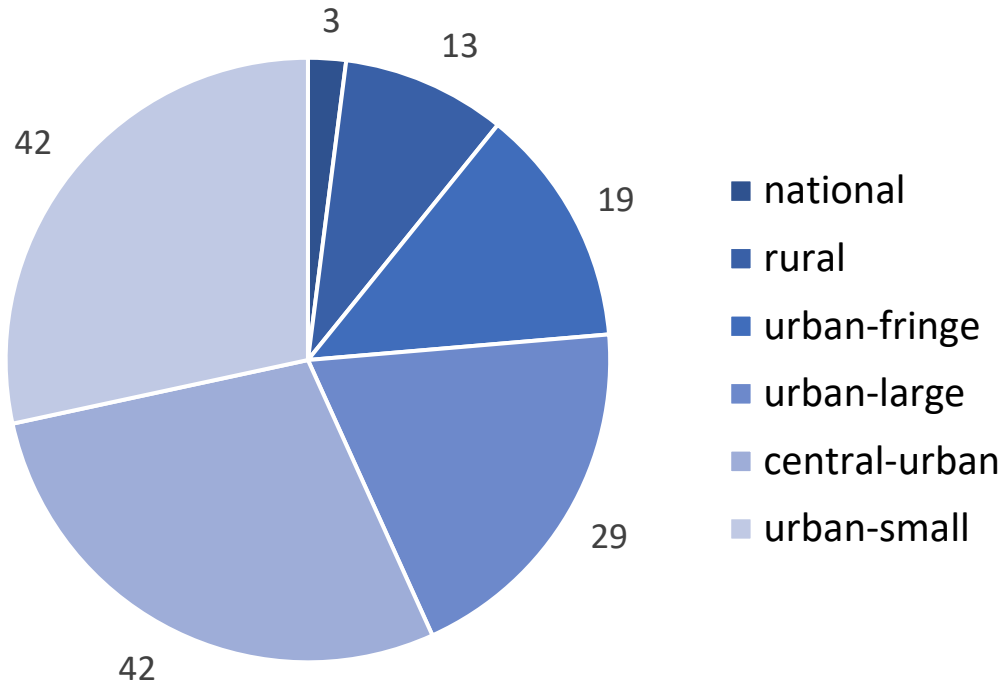
C - Hub types and initiators

Who initiated the mobility hub?



Which hub types are covered by the ODP?



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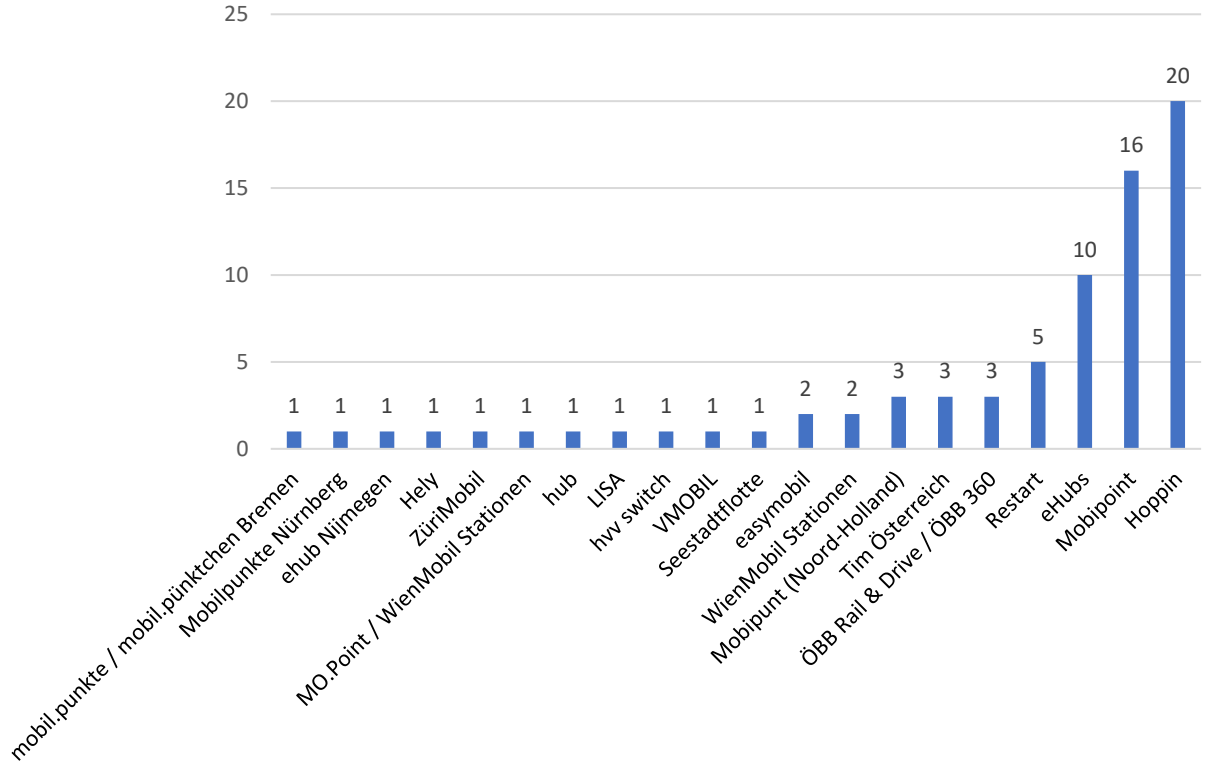
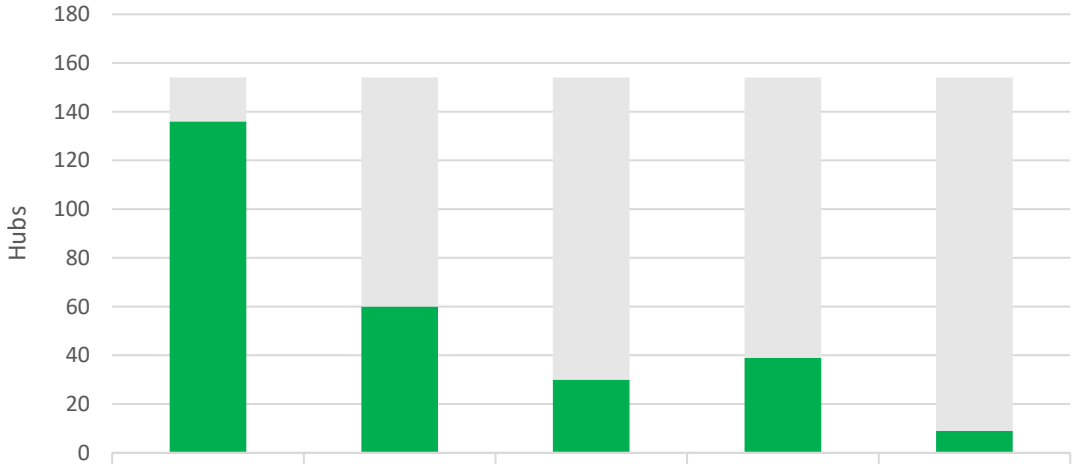
C - Hub networks and PT-modes

Number of hubs per hub-network



Mode of Public Transport



	1	2	3	4	5
No	18	94	124	115	145
Yes	136	60	30	39	9

1 = bus | 2 = train | 3 = metro | 4 = tram | 5 = demand transport

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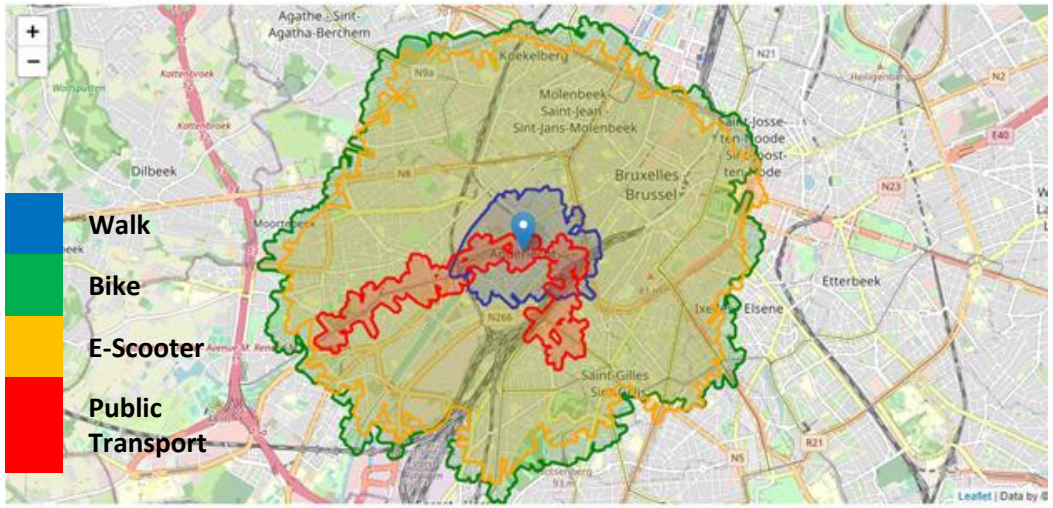
D - ODP meets SmartHubs Accessibility tool

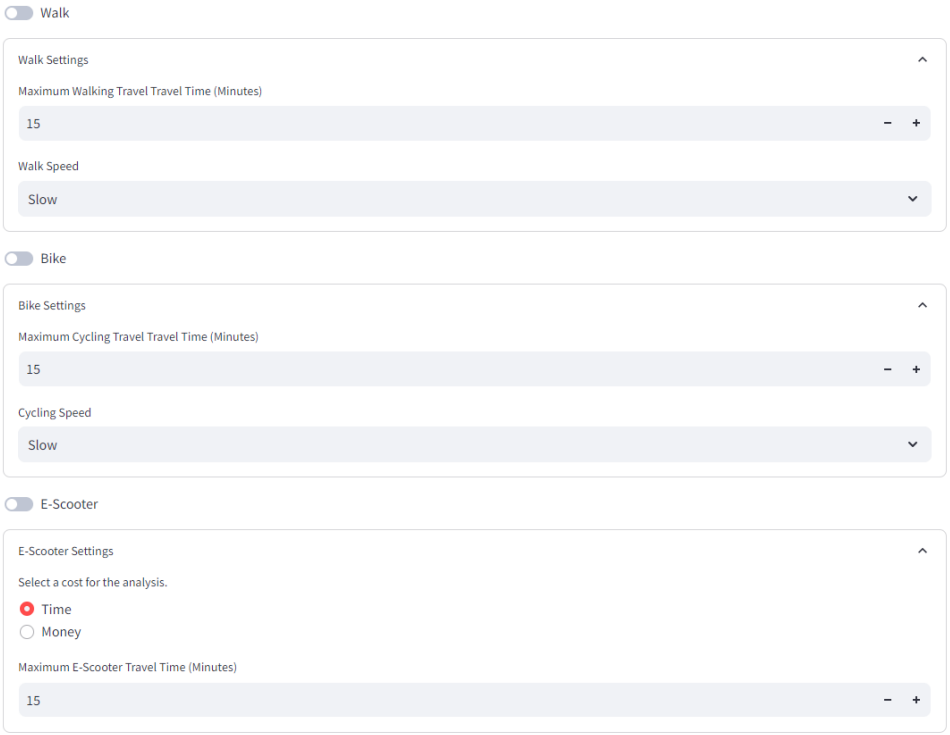
D - SmartHubs Accessibility tool

Analysis Results



	id	mode	Restaurant/Cafe/Bar	Education	Service	Healthcare	Supermarket	Entertainment
0	hub1	Walk	74	5	20	19	6	1
1	hub1	Bike	1731	64	213	228	71	10
2	hub1	E-Scooter	1638	58	202	201	65	9
3	hub1	Public Transport	83	1	24	21	6	1

https://accessibility-tool.streamlit.app/



See **Deliverable D 5.2** for documentation and detailed analyses for SmartHubs Living Labs:
https://www.smartmobilityhubs.eu/_files/ugd/c54b12_e489f6049f864e33b545af1780d8a6d6.pdf

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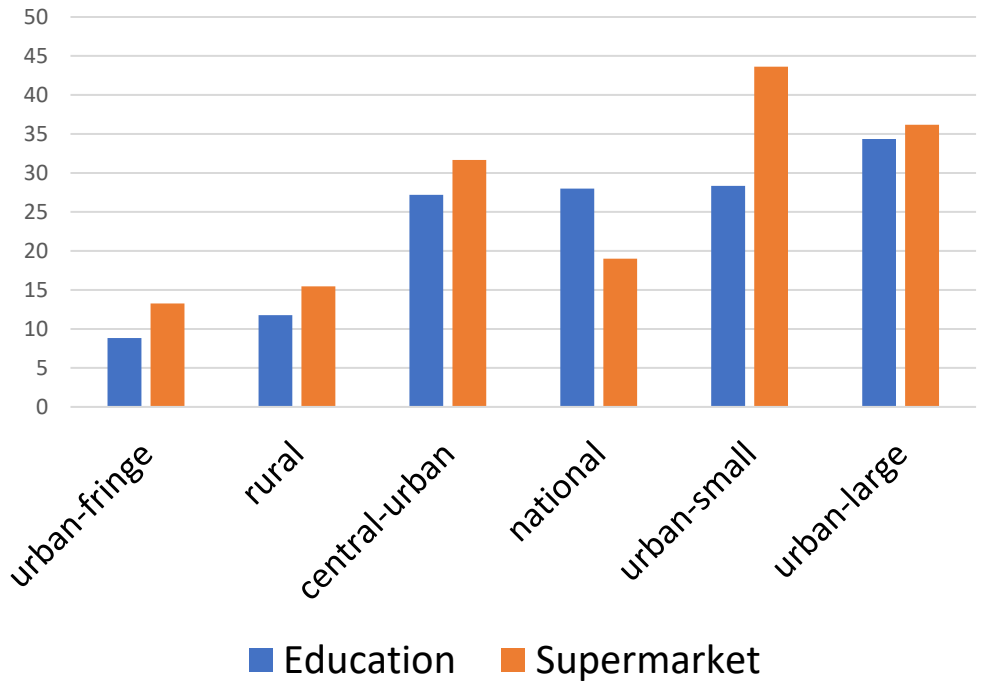
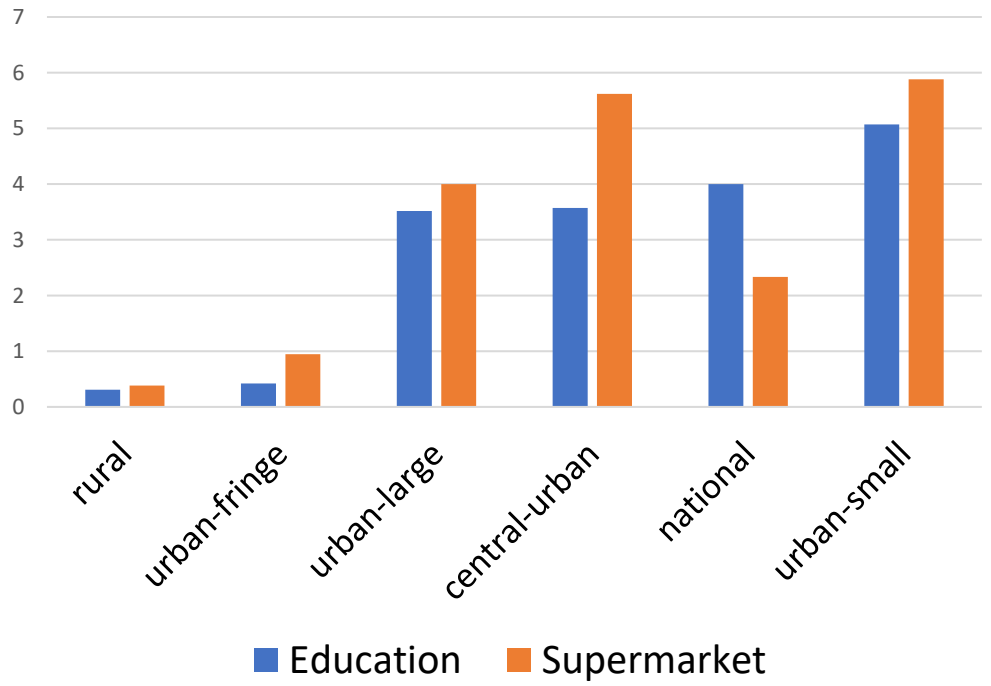
D - Differences of accessible services by hub type

Which services can be reached by 15min cycling ?



Which services can be reached by 15min walking ?



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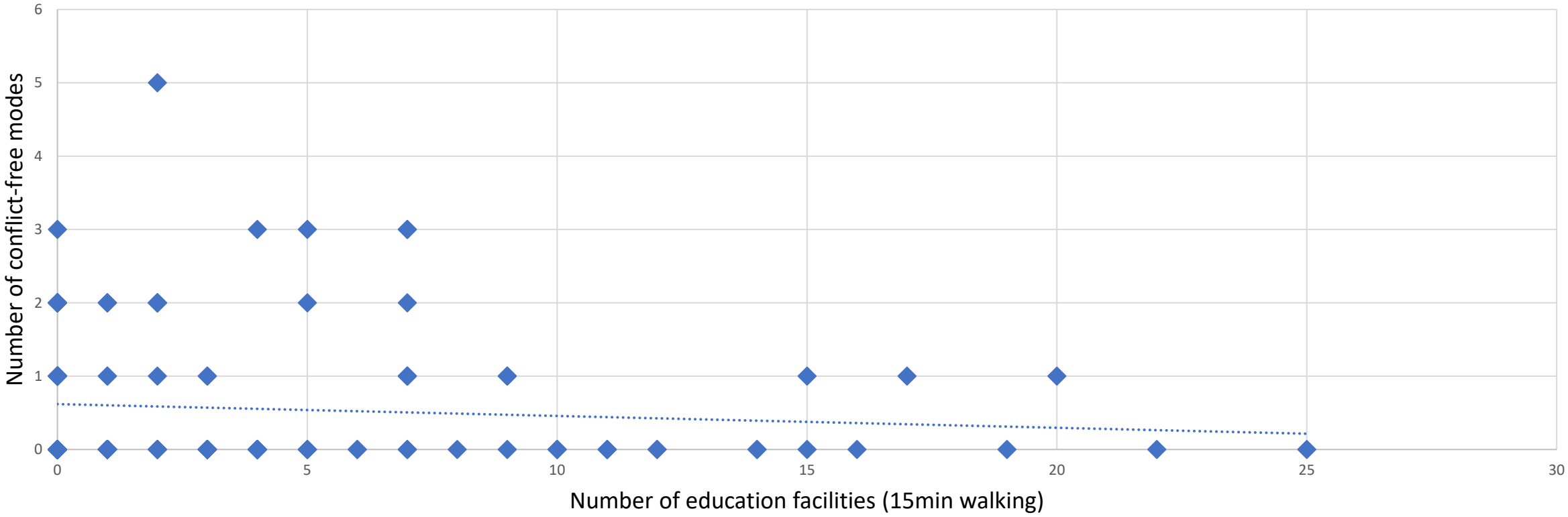
D - Are education-clusters close to conflict-free hubs?

How many modes are accesible without conflicts?



-> perspective for **„specialisation“ of hubs** depending on higher share of specific user groups

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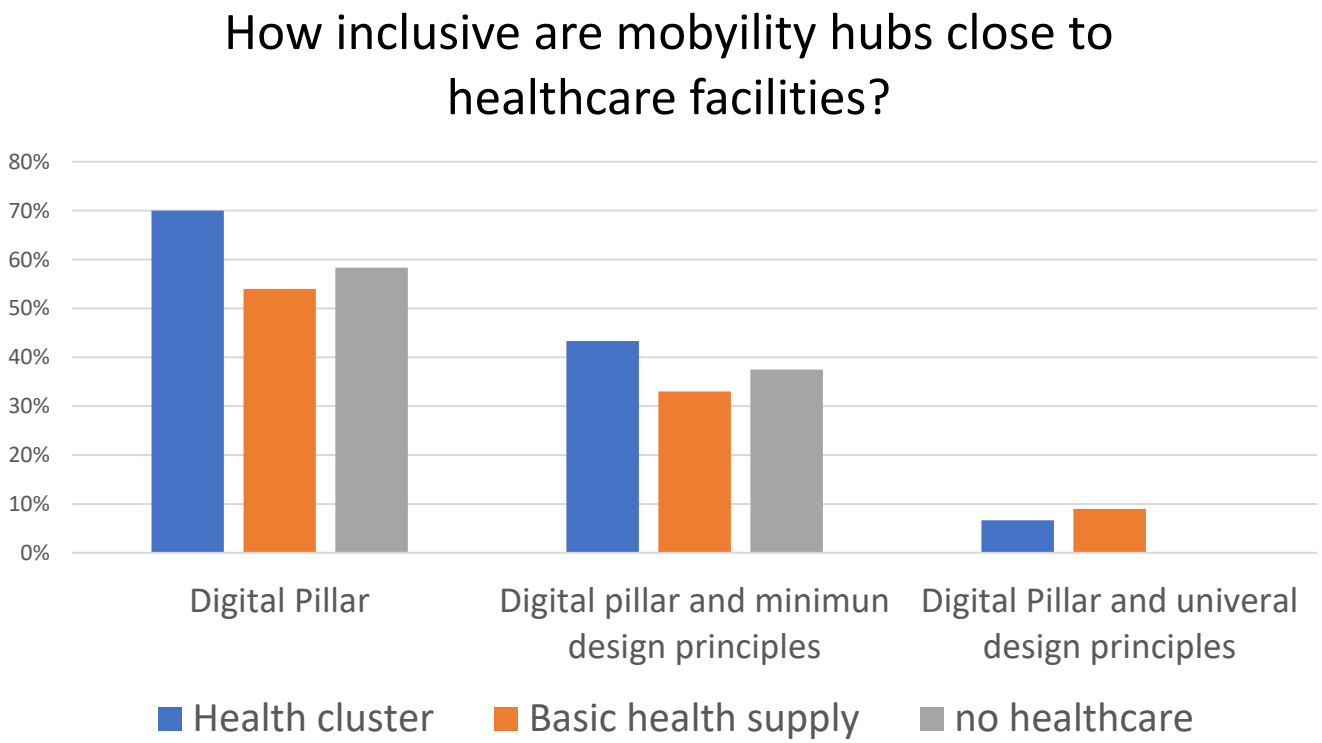
D - Are healthcare-clusters close to inclusive hubs?



Health cluster: more than 20 healthcare facilities accessible by 15min walking

Basic health supply: 0-20 healthcare facilities accessible by 15min walking

No healthcare: 0 healthcare facilities accessible by 15min walking

-> perspective for **„specialisation“ of hubs** depending on higher share of specific user groups

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E - Learnings from the ODP-process and analysis

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E - Learnings – Love / Change / Leave it

- ODP is easy scalable
- Multi-level user management in ODP
- High number of hub-locations which can be analysed in one run in the accessibility tool
- Analysis shows complexity of the role of mobility hubs in their spatial context

- ODP-export needs further documentation to be used
- Make ODP-data visible in OpenData – inventories
- Use different tool to “rebuild” multi-relational database
- Check use of data via data interface directly in GIS to enhance ease-of-use

- ODP-Editor-rights for operators are not realistic in this field - to low gained value
- Higher level of gamification needed to intensify community-mapping
- Still data missing to be able to generate more relevant analysis (e.g. usage data, micro-level data on nearby inhabitants, …)

E - Invitation to contribute!

We are happy to welcome new **contributors** on the OPD,
you can just submit a hub here:
https://data.smartmobilityhubs.eu/wiki/Special:FormEdit/semorg-hub-draft/Draft:Hub

If you want to be engaged as an **editor** with your own account for easier re-editing let us know!

For further information reach out to
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Add a mobility hub in the ODP!

SCAN ME

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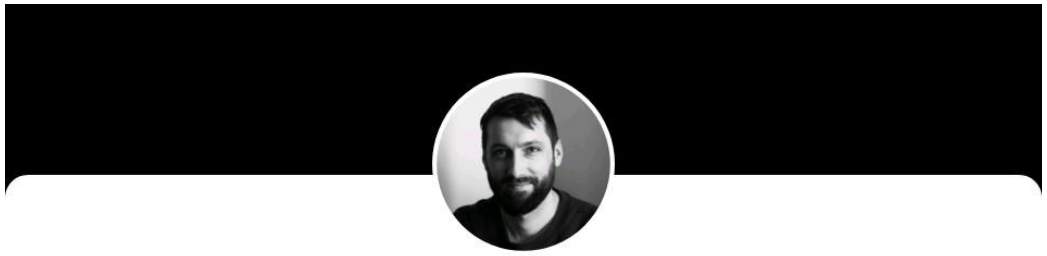

Thank you!