Focus session

B2: Citizen-centric solutions in mobility

9.00–10.30

TRAFICOM Finnish Transport and Communications Agency

eParking.fi

SITOWISE The Smart City Company

Regional Council of Southwest Finland

TRANSPORT AND MOBILITY
research team

Long-term effects of COVID-19 epidemic and challenges for mobility management

Hana Brůhová Foltýnová

European Conference on Mobility Management 2022

1 June 2022

ECOMM
European Conference on Mobility Management

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About project

TRANSPORT AND MOBILITY
research team

- **Project duration**: 07/2020 – 06/2022
- **Project partners**:
  UJEP and
  STEM/MARK

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STEM/MARK

- **Supporting institutions**: Czech Ministry of Transport, ROPID, KORDIS
- **Cooperating institution**: Technion - Israeli Smart Transportation Research Center, Haifa

Main research questions

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- Short-term and long-term **changes in travel behaviour** during / after COVID-19, new trends for main types of journeys
- Mobility system, (temporary) **measures to prevent COVID** and improve the PT system
- Decision-making of **public authorities during COVID** + good practice and recommendations

Project activities

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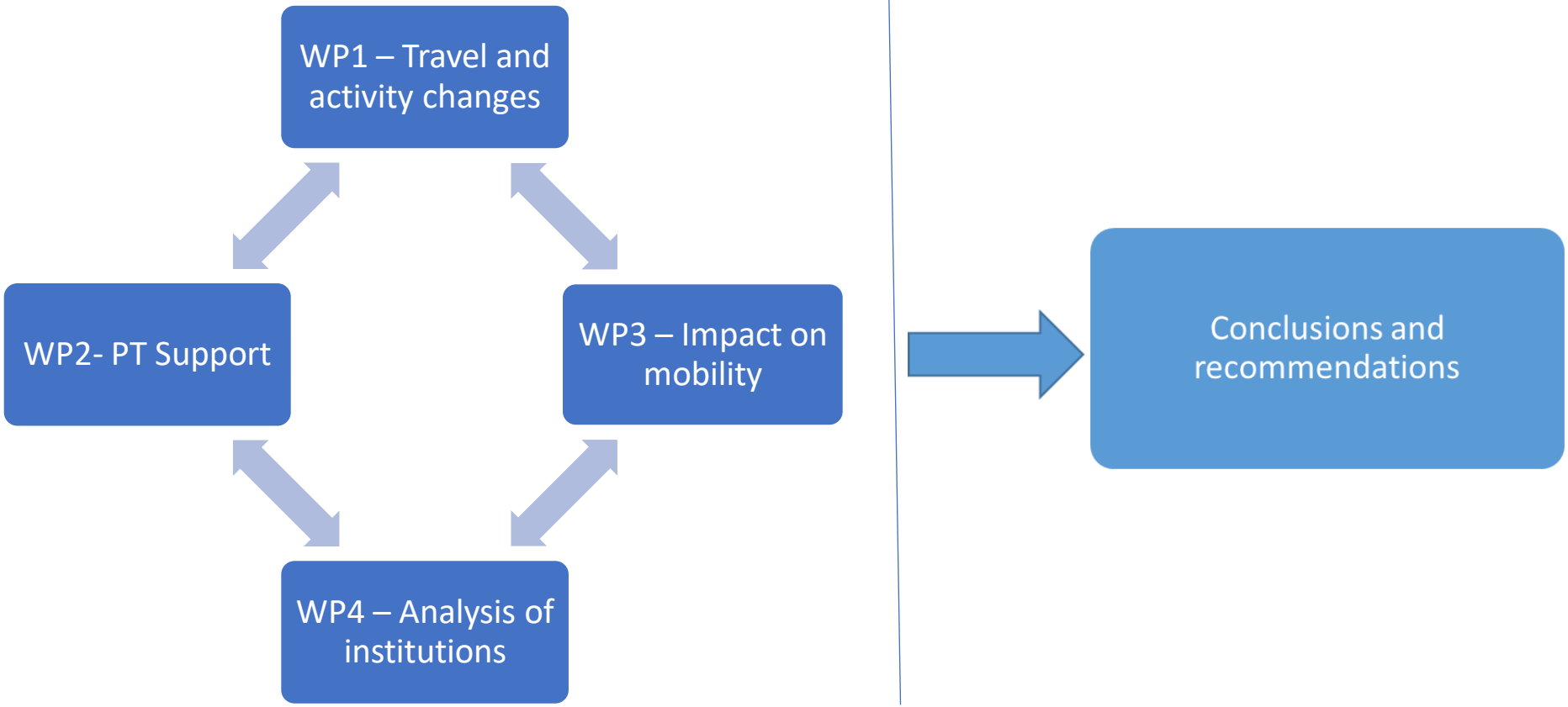
research team



Panel creation

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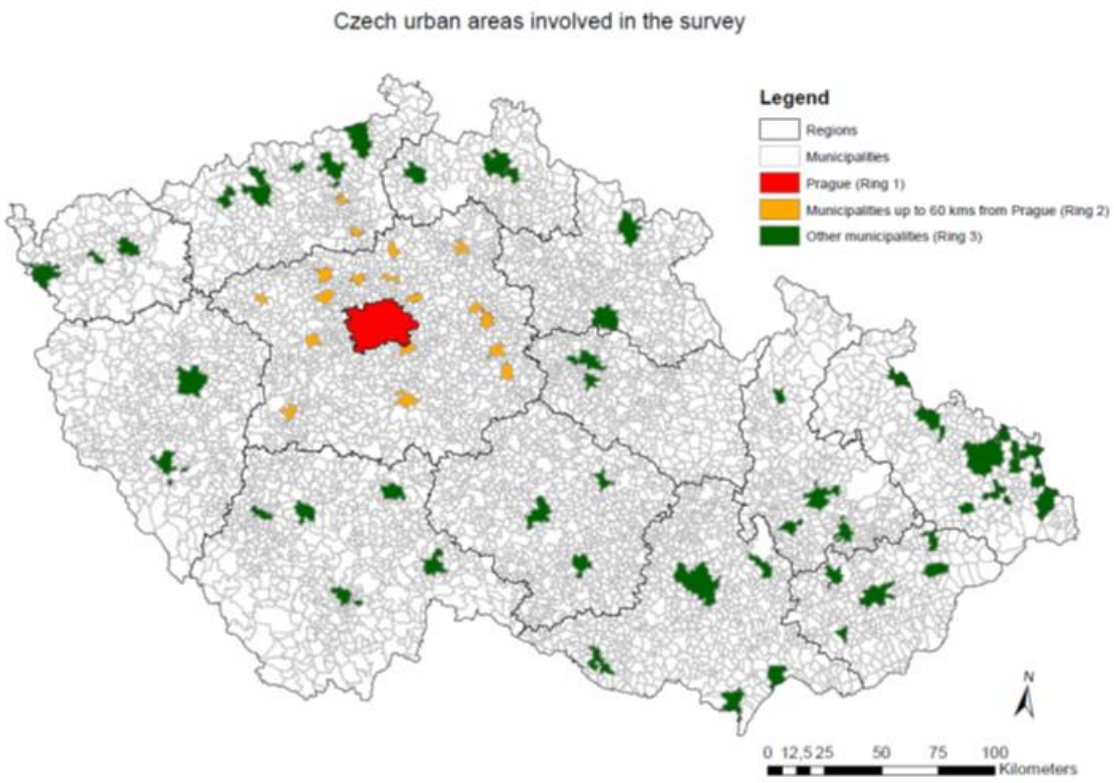
research team

- **Target group:** urban population 18+, economically active
- **Representative sample** (quota for sex, age, education and income + place of residence)
- **Geographic coverage** - cities over 20 ths inhabitants
  - Prague
  - Central Bohemian reg
  - Rest of Czechia



Panel creation

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- **Online questionnaire**: activities and related travel behaviour + socio-demo, questions on Covid-19 experience (incl. quarantine) etc.
- **4 waves of data collection** on the same sample of respondents
  1. N=1103, data collection 5 – 15 June 2020
  2. N=805, data collection 5 – 18 Nov 2020
  3. N=703, data collection 10 – 24 May 2021
  4. N=707, data collection 23 Sept – 18 Oct 2021
  - The same questionnaire used in Israel (2 waves of data collection)

Findings – commuting to work

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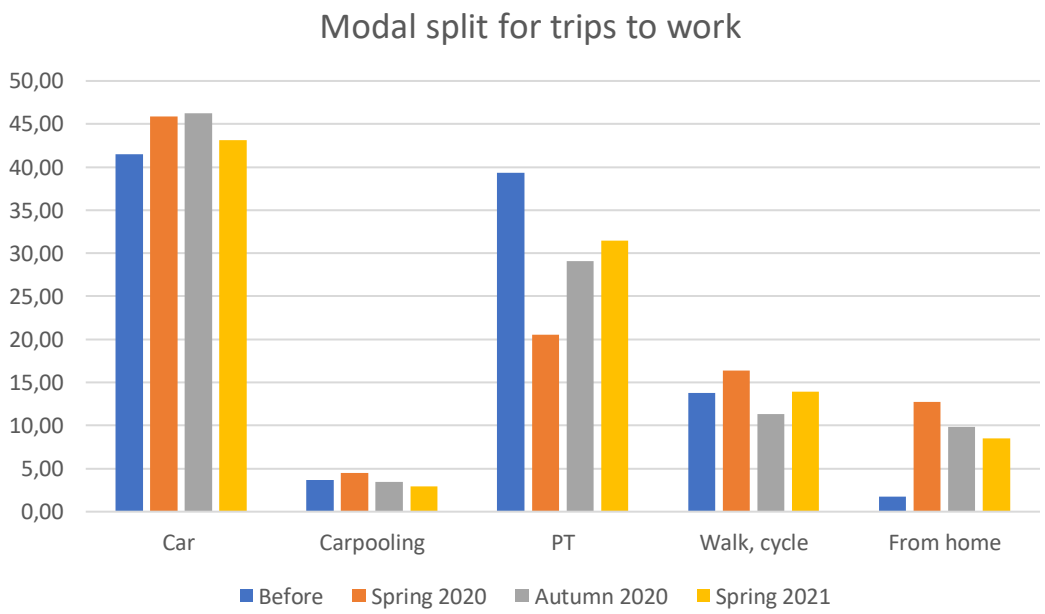
- The changes in commuting to work occurred most at PT users: only 45% of them continued using PT for commuting to work during COVID restrictions

- Those who switched from PT:
  - started to use personal or company cars – 15%
  - about 8 % switched to cycling or walking,
  - 15 % started to work from home or stopped commuting to work for another reason (14 %).



Findings – commuting to work (1st wave)

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Travel mode to work	Israel			Czechia		
	Before	During	After	Before	During	After
Car	58%	42%	60%	44%	45%	45%
PT	31%	5%	26%	38%	18%	33%
Non-motorised	8%	5%	9%	14%	15%	16%
Other	3%	48%	5%	4%	22%	6%

Highlights of findings – trips to work

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- The highest share of travel modes during the COVID pandemics: **cars - 45 % and PT - 35 %**
- Decrease of PT use after the COVID pandemics is expected, comparing to the status before
- **Non-motorised** transport share – **under 20 %,** it is quite stable, data reveal commuting to work during the COVID pandemics will not change the cycling and walking shares significantly afterwards

Highlights of findings – home-office

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- **Increase in home-office after the COVID pandemics** is expected – especially for partly home-office regime: 2-3 days a week
  - **Full home-office** will slightly increase (based on a type of work, employer and willingness of employees to work from home)
  - Home-office does not necessarily mean a decrease in n. of trips (because of some **extra trips** which were previously covered while commuting to work – like shopping, meeting friends etc.)

Highlights of findings - shopping

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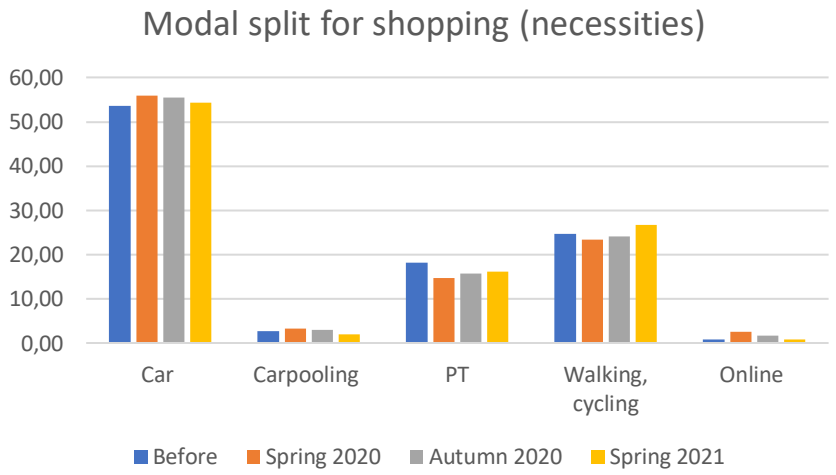

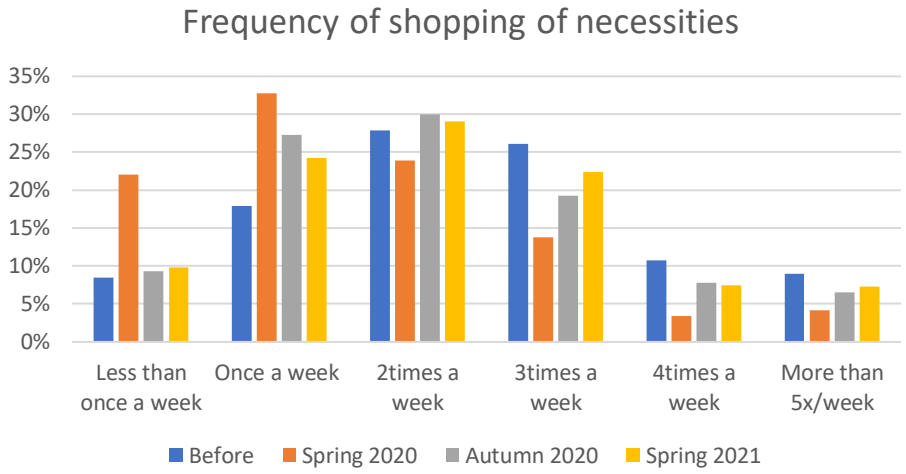

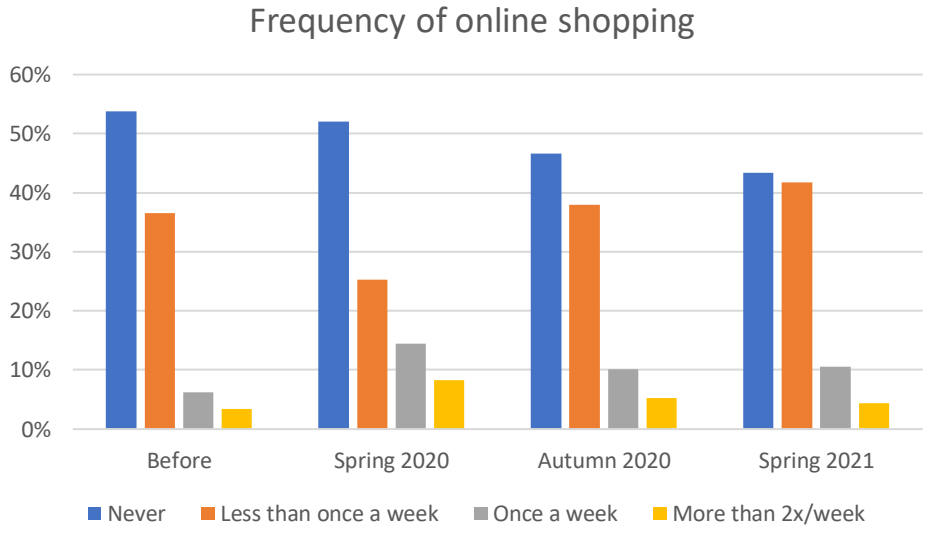

Highlights of findings - shopping

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- More than 50% of shopping trips **by car**
- About 25% of shopping trips **by non-motorised transport**
- Quite conservative behaviour
- Significant increase of respondents who sometimes **shop online** (less than once per week)
- **Online shopping** – the highest potential is at „non essential“ goods (= other than grocery and drugstore goods)

Highlights of findings – leisure-time trips

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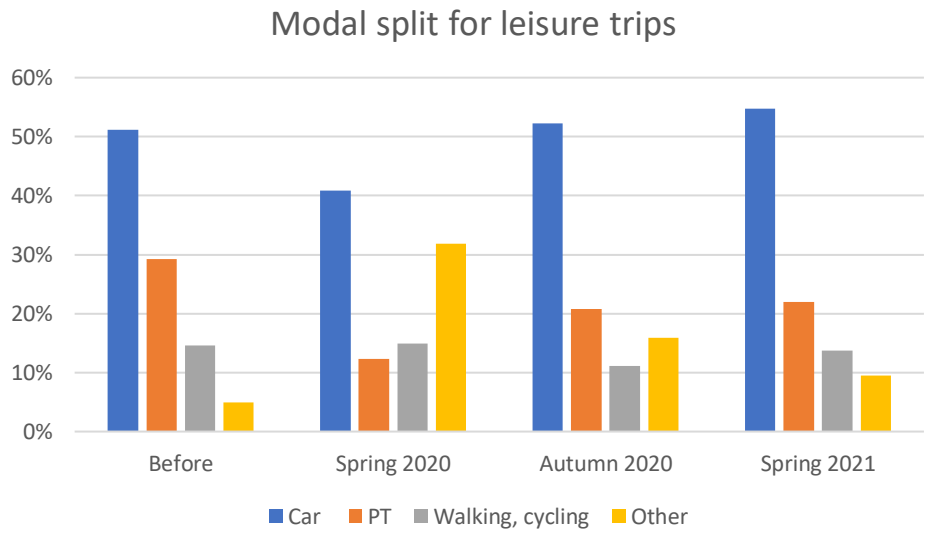
- **Leisure-time trips** (for culture, sports, visiting friends, restaurants etc.)
  - In total we distinguish 9 types of activities (outside and online)
- **Outside activities** are expected to grow after the COVID pandemics
- The trips are mostly done by **cars (about 50%) during the pandemics**
- **PT - 28 % before the pandemics**
- **Non-motorised transport 15 %** (through time more or less stable)



Qualitative analysis of user attitudes to PT

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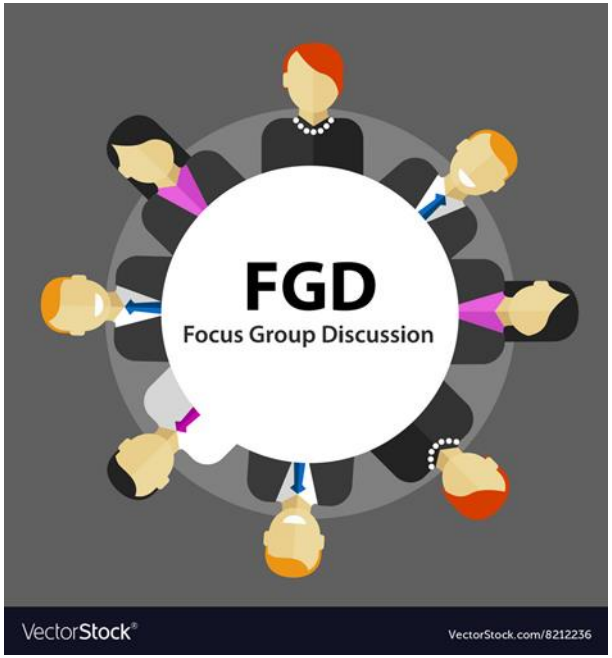
- Analysis of **subjective perceptions** of COVID-19 (through focus groups):
  - consequences on activities, travel behaviour and
  - attitudes to transport modes, mainly PT + evolution of attitudes during COVID waves

- **Our respondents**: PT users + those who left PT, stopped using shared mobility services (incl. Taxi) during COVID waves,

- **Our key question**: how to change PT conditions to keep users and what measures are most welcome to feel COVID-safe in PT system



Qualitative analysis of user attitudes to PT

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Quality and safety of PT services is decisive.

- **Good communication** on special anti-COVID measures, incl. marking
- Number of **vehicles** and vehicle capacity (allowed n. of passengers)
- PT service intervals, travel time and final **flexibility** at interchanges
- Possibility of contactless payments in PT vehicles
- **Hygienic regulations:** masks mandatory, disinfection, distancing in vehicles and at stops (also drivers from passengers), more frequent cleaning and airing of vehicles etc.

Institutional analysis

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- Analysis of the **Covid-19 evolution** and **transport / mobility management**
- Attitudes, experiences and measures **governed from several types of institutions:**
  - Municipalities
  - Regional authorities
  - Transport coordinators and providers
  - Regional hygienic stations
  - State authorities
- Method: **structured interviews** with representatives

Institutional analysis

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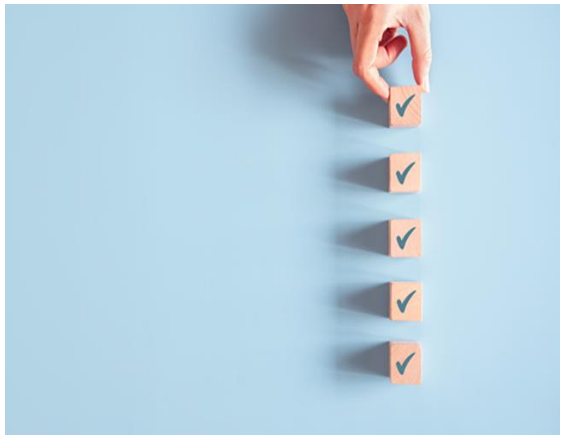
research team

Efforts of the institutions to protect citizens and transport providers.

Measures of prevention:

- Staggered or organised shopping (in shops), e-shops or integration with other purposes
- Reservation systems for clients
- Prevention of trips („forced/recommended home-office“, online service)
- Staggered commuting (shifts)
- Transport system with safety measures
- Regional hygienic stations – tracing, staggered testing / vaccinating
- State authorities – new decrees



- How to cover increased financial costs?

  Due to lower revenues – pressure on state and regional budgets

Our further steps

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research team

- **Main output =** report for municipalities and public authorities with recommendations and good praxis (available in June 2021)

- **Exchange of good praxis with Slovakia -** UNIZA – University of Žilina, Slovakia

- **Further analysis among PT users and recommendations on how to make PT more attractive to users**

TRANSPORT AND MOBILITY
research team

THANK YOU FOR YOUR ATTENTION!

Hana Brůhová Foltýnová

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This project is enabled by support from TA CR Grant no. TL04000094 Changes of transport behaviour caused by Covid-19 and their impacts on society".

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MOBILITY LAB HELSINKI

Citizen-centric innovations enabling better mobility services and transition towards sustainability – case examples from Helsinki, Finland

ECOMM 2022, Turku Finland

Janne Rinne, Forum Virium Helsinki

MOBILITY LAB HELSINKI

testbed.helsinki/en/

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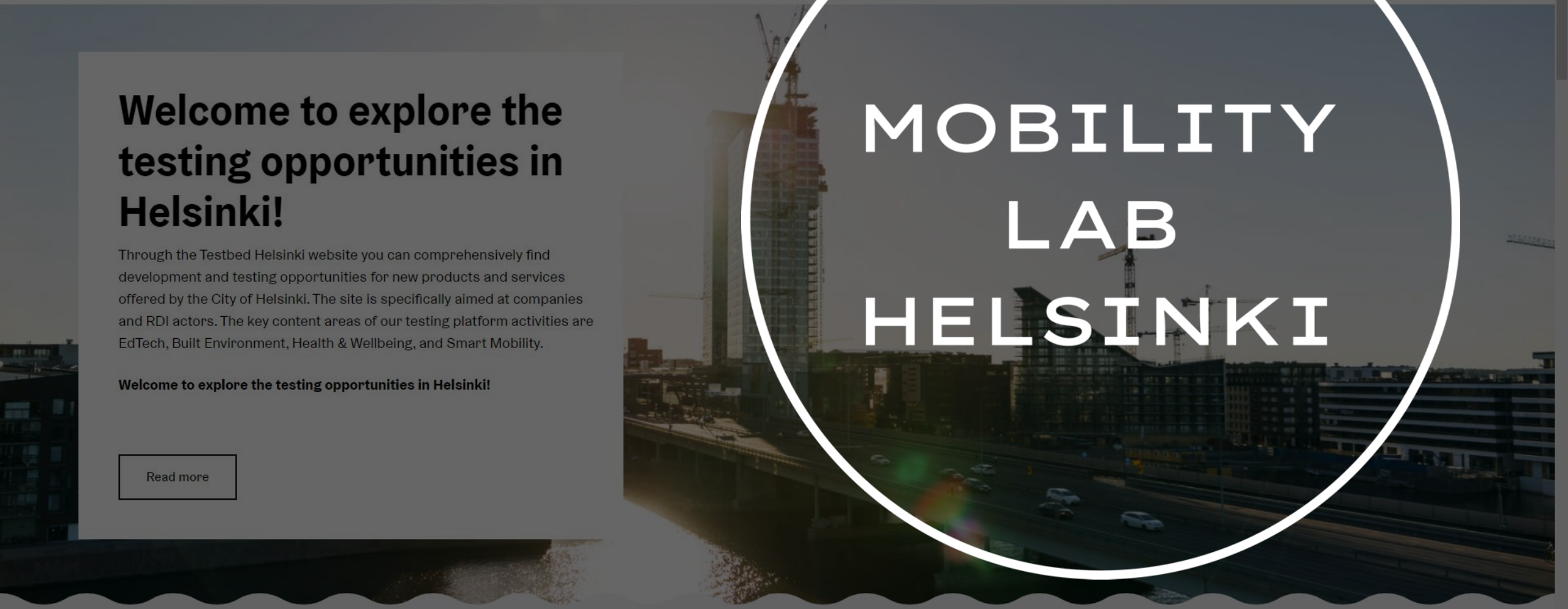
Welcome to explore the testing opportunities in Helsinki!

Through the Testbed Helsinki website you can comprehensively find development and testing opportunities for new products and services offered by the City of Helsinki. The site is specifically aimed at companies and RDI actors. The key content areas of our testing platform activities are EdTech, Built Environment, Health & Wellbeing, and Smart Mobility.

Welcome to explore the testing opportunities in Helsinki!

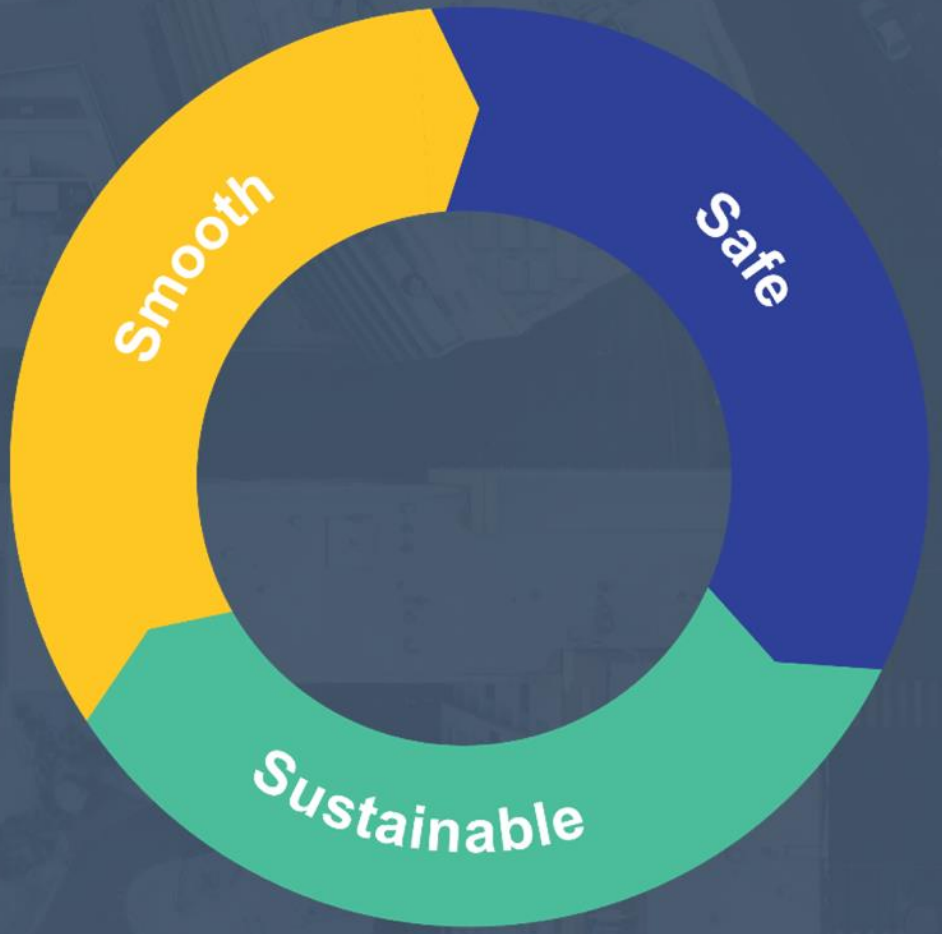
Read more




FORUM
VIRIUM
HELSINKI

Objectives

- World-class testbed and innovation environment
- Better solutions for users
- References and new business
- Improved practices in supporting innovations
- Umbrella for smart mobility activities in Helsinki



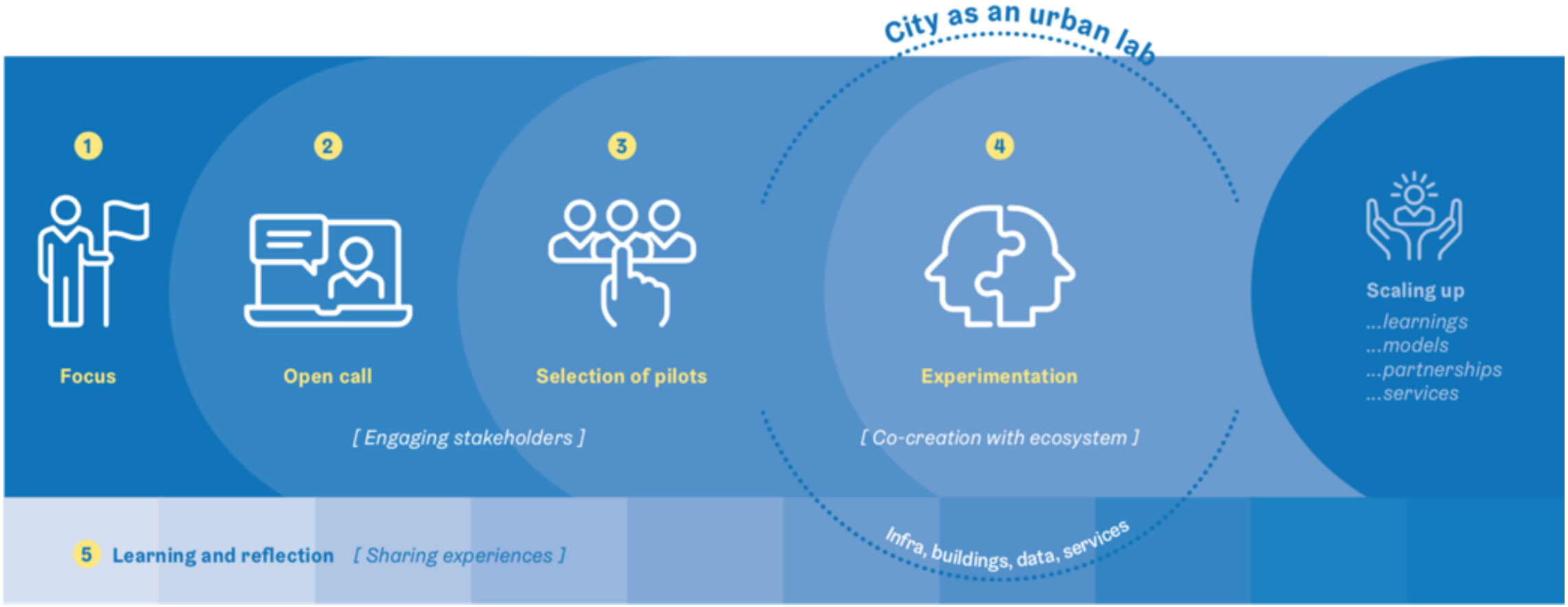
Jätkäsaari Mobility Lab

Collaboration, communication, concrete piloting

Residents as co-creators

- Residents involved
  - Defining focus for piloting rounds
  - Selecting pilots in expert jury
  - Experimentation stage: co-creation with planners, end-user feedback
- Mobility Lab present in local events and social media groups
- Contacts to local gatekeepers

Agile piloting engages residents



Cargo bike sharing

- Piloting shared cargo bike service in urban neighbourhood in Helsinki, summer 2019
- Alternative to car in transporting people and goods (e.g. grocery shopping, kids to kindergarten)
- Follow-up 2020 & 2021
- Service provider: NeZeco (FI)

6Aika
Euroopan unioni
Euroopan aluekehitysrahasto
Vipuvoimaa EU:lta 2014–2020
Uudenmaan liitto
Nylands förbund

Cargo bike sharing

- Cargo bikes available to local residents of Jätkäsaari
- 6 shared cargo bikes
- Regular and electric bikes
- Geofenced locations for parking in parks, yards of residential buildings
- 500 registered residents in the pilot, about 200 actual users (2019 pilot)

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Nylands förbund

Ride-sharing from school to hobbies

- Agile pilot by a local football club PPJ
- Saving time of families
- Lower price of early practice hours compensate transportation costs
- From agile pilot to permanent activity in the club (on hold due to Covid)
- A guidebook for other sports clubs (over 500 downloads)

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Vipuvoimaa EU:lta 2014–2020
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Nylands förbund

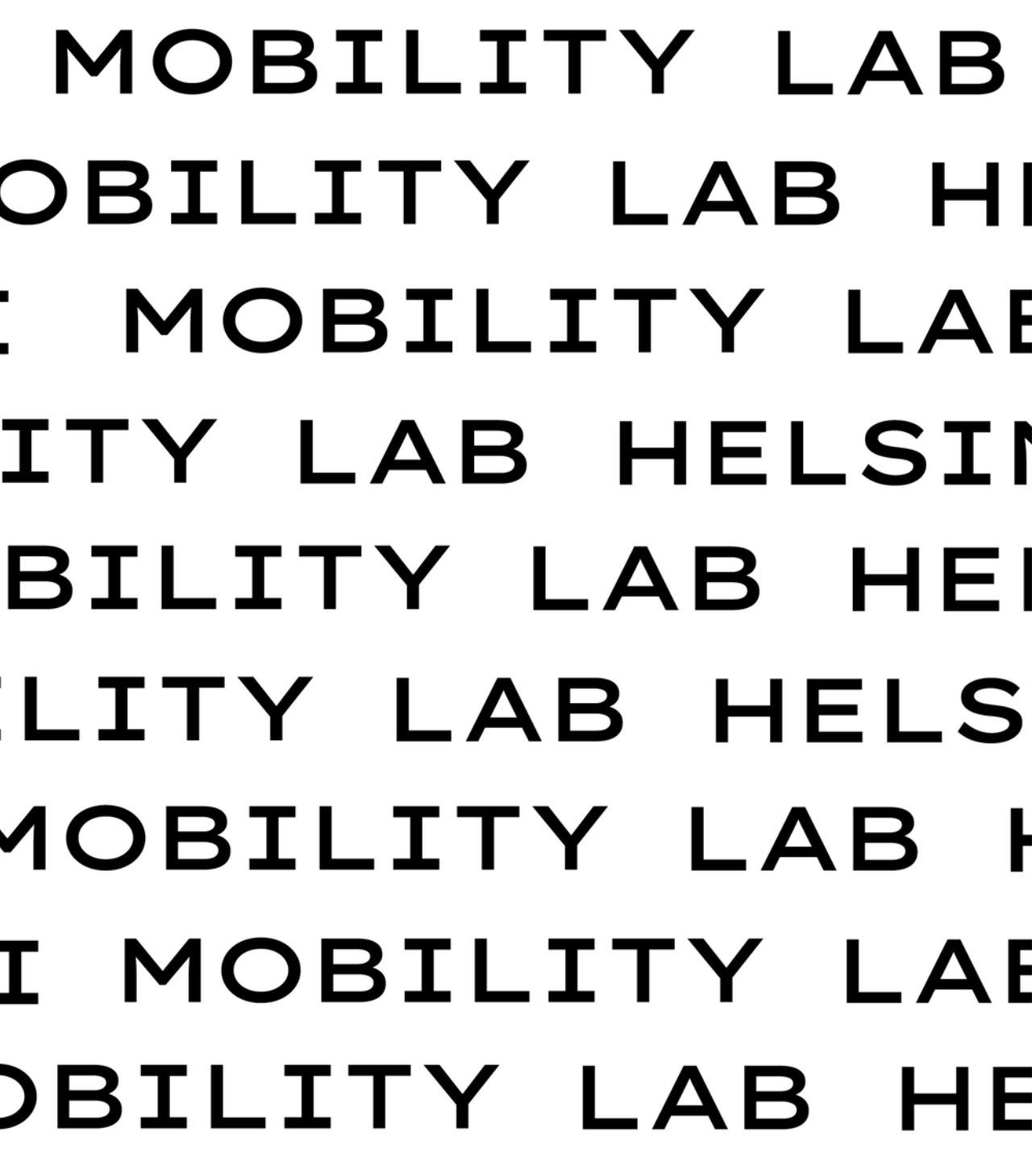
Callboats – On-demand electric ferry

- Electric boat service piloted in Helsinki 2020 & 2021
- Fully electric & on-demand to Vartiosaari, a popular recreational island in Eastern Helsinki
- Idea from Helsinki's participatory budgeting
- 10 000+ passengers

Euroopan unioni
Euroopan aluekehitysrahasto
Vipuvoimaa EU:lta 2014–2020
Uudenmaan liitto
Nylands förbund

Key takeaways

- Residents can have a key role in introdicing sustainable mobility services in cities
- Mobility Lab’s co-creative approach highlights residents involvement
- Expert knowledge is needed in assessing the feasibility of proposed ideas
- Mobility Lab is responsible for coordinating the actual implementation (e.g. co-creation, permits, installments)
- When documented carefully, the pilot results and experiments support further development and scaling up



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austriatech

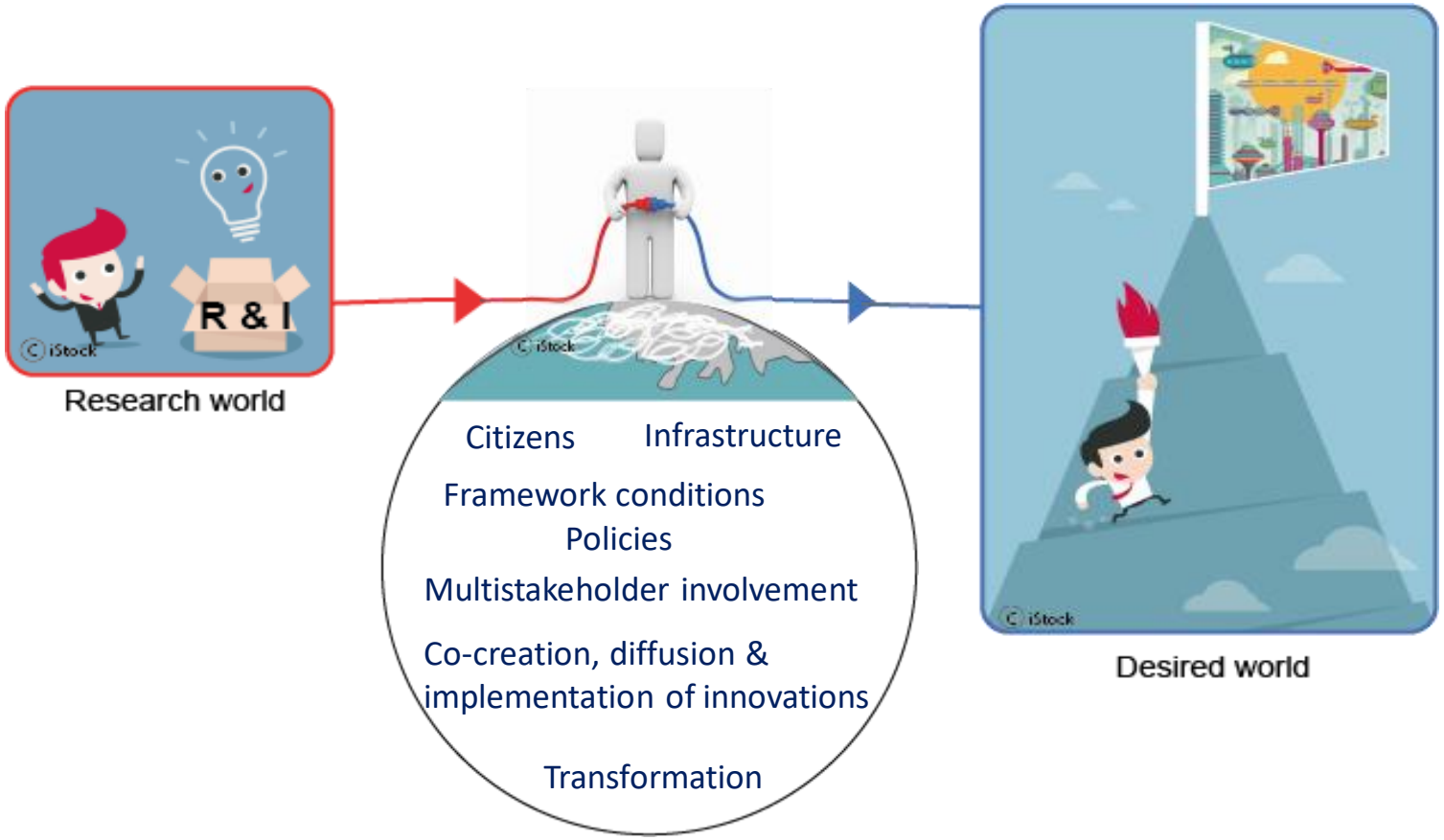
Engaging citizens and promoting sustainable mobility within the Austrian mobility lab initiative

Kathrin Raunig
AustriaTech at ECOMM 2022, Turku

Content

1. Our understanding of a real-world laboratory
2. Austrian mobility labs
3. The Austrian mobility lab initiative

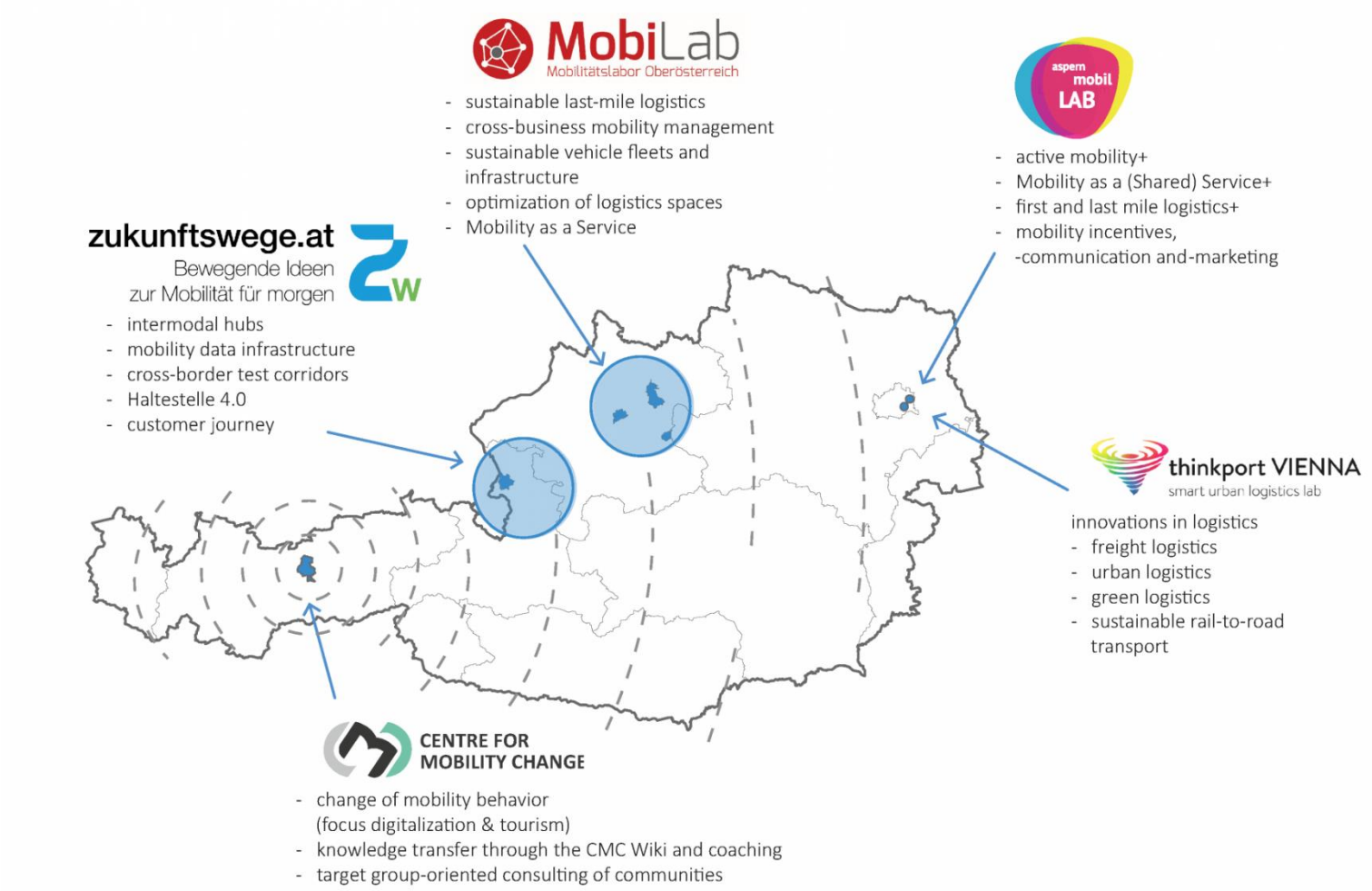
What is a real-world laboratory?



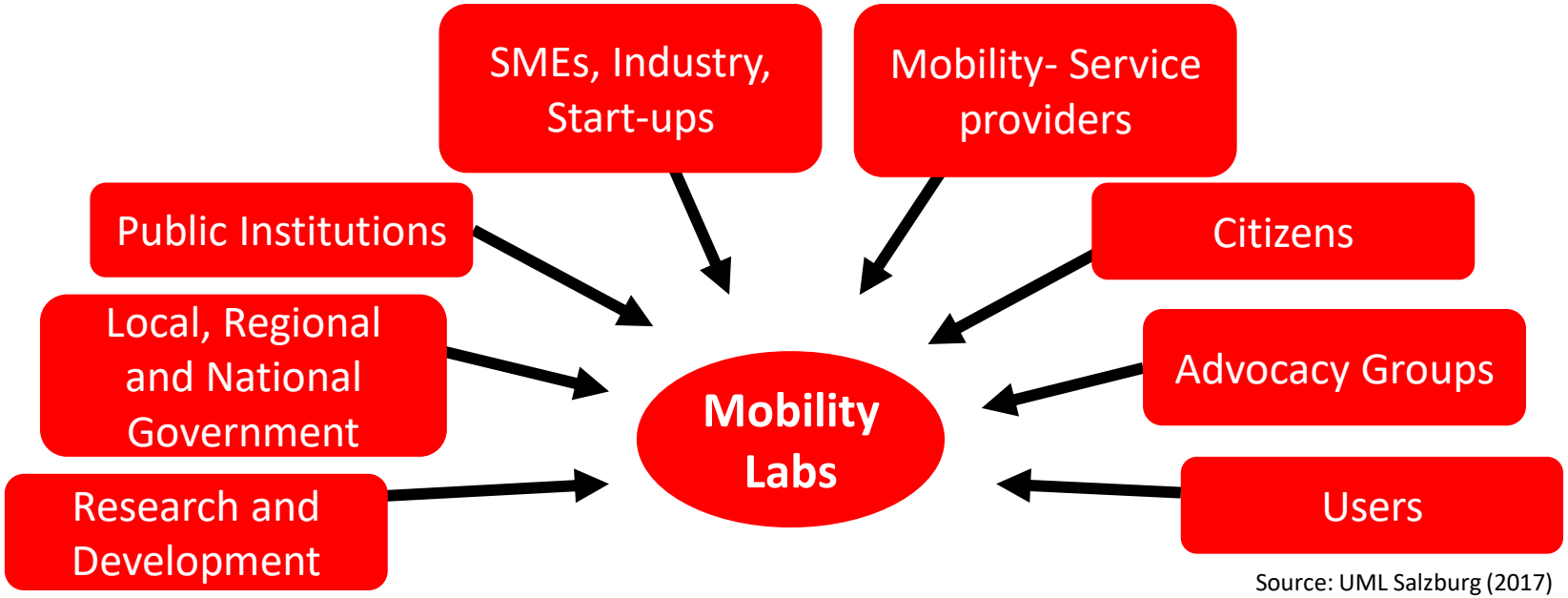
What are the key services of Austrian mobility labs?

- They provide a cooperative setting that enables exchange & cooperation between different stakeholders.
- They provide a dedicated research infrastructure to develop the mobility of the future.
- They are test environments, in which piloting and optimization can take place under real-world conditions.
- They bring innovations in contact with future users and decision-makers.
- They transfer knowledge and practical experience to stakeholders as well as citizens
- They can provide helpful, strategic input for the public sector because of their regional expertise about mobility challenges.

The diversity of Austrian mobility labs



Mobility lab network



Source: UML Salzburg (2017)

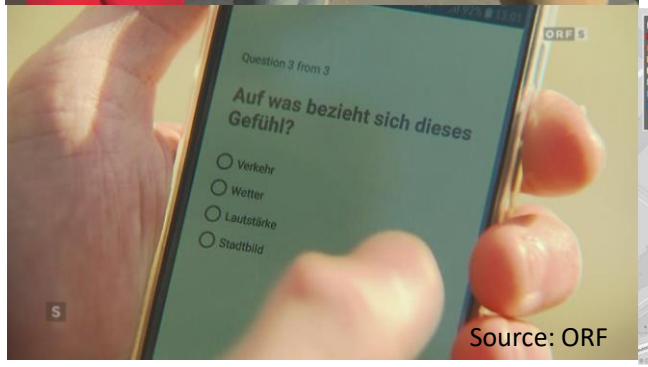
Some projects with mobility lab involvement

Source: BikeParker

Bike parking system at Haltestelle 4.0

Source: ORF

Bundled last-mile e-delivery for businesses



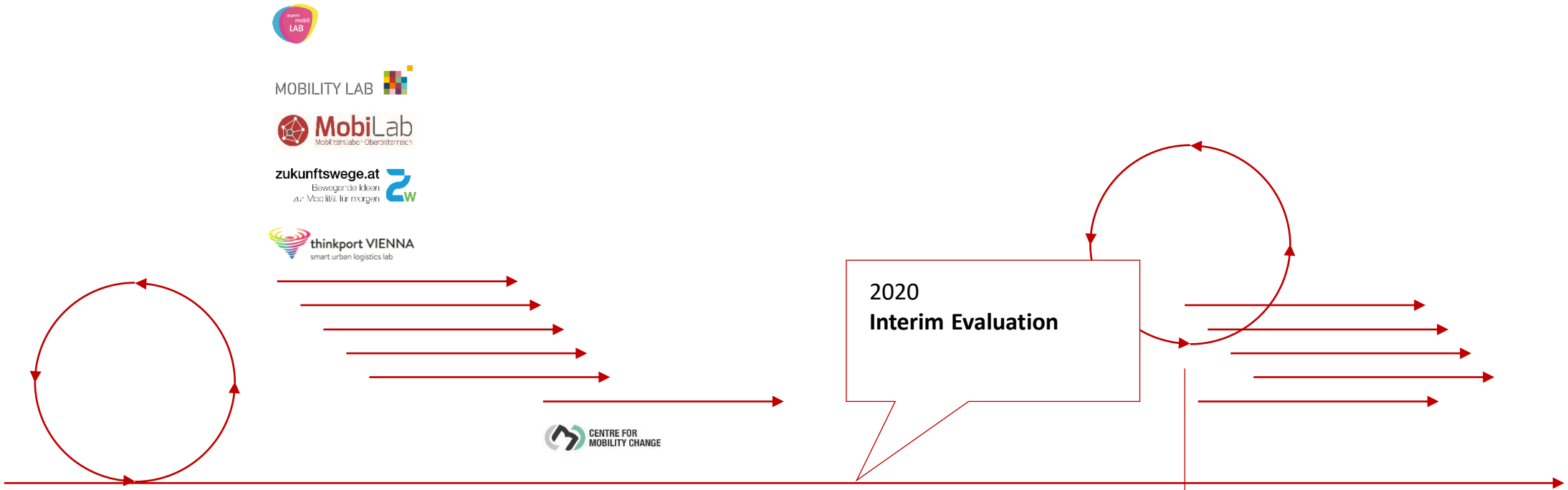
Source: ORF

Source: Z_Gis

Development of multi-purpose lanes including biofeedback measurments

and many more…

A short history of: The Austrian mobility lab initiative



How can you profit from the Austrian mobility labs?

- Discuss real-world and living lab methods (co-creation, design-thinking, citizen science, citizen engagement)
- Discover our experiences in building up and operating a real- world lab in different topographic and geographical areas.
- Transfer adapted solutions and innovations developed in the Austrian mobility labs to your city or region.
- Learn from our experience in setting-up a mobility lab initiative and platform
- Cooperate within EU-projects

Thank you for your attention!

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https://mobilitaetderzukunft.at/en/articles/mobility-labs/

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Value of the projects delivered

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A lot of operators using systems daily basis

>110 PTO's using systems

Tens of thousands of assets connected

~35k connected vehicles

How integrated Demand-Responsive Transport solution will change the way we think about public transport

Sven Rosenberg

Head Of Sales

RIDANGO

Suburbs and rural areas lack of frequent public transport service

Public transport operators require efficiency and better monitoring of the service

Demand-Responsive Transport Solution (DRT)

DRT boosts flexibility and accessibility for passengers, while empowering transport service providers to operate with maximum efficiency.

Ridango's DRT solution supports

Social transport (paratransit)

- Provides efficiency for the Public Transport Authority by combining multiple people's journey into a single trip
- Makes entitlement handling and payment simple and convenient

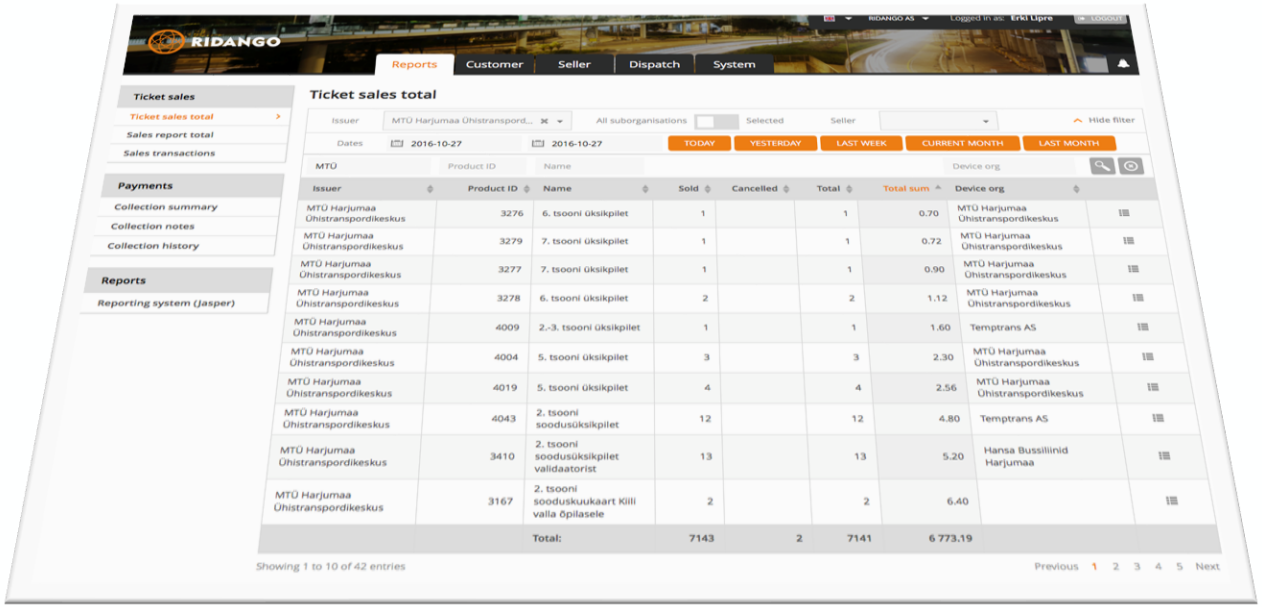
Public transport in rural areas

- Provides efficiency for Authority or Operator by using the right vehicle and making trips only, when needed
- For passengers - gives access to public transport network in a time and location of their choosing
- Can also be applied to school transport

DRT solution can be an extension of Ridango's account-based ticketing

SEVERAL MODULES OF ACCOUNT-BASED TICKETING SOLUTION ARE USED

- Account management
- Database
- Travel cards
- Core functionality (ticketing products, entitlements, etc.)

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BENEFITS FOR THE OPERATOR/AUTHORITY

Optimized logistics

System assisted route optimization, integration with public transportation.

Higher efficiency

Increase in efficiency by dispatching the vehicle with suitable seating capacity.

Customer management

System allows to easily add customers, manage entitlements and orders.

BENEFITS FOR THE CUSTOMER

Travel availability

A custom approach to customer needs. Point-to-point service at any time, all personal specific travel needs to be considered.

Easy payment

Multiple payment methods; cash, bank card, travel card, invoice.

Convenient service ordering

Multiple channels (app, web, phone) are available for placing service orders and viewing service history.

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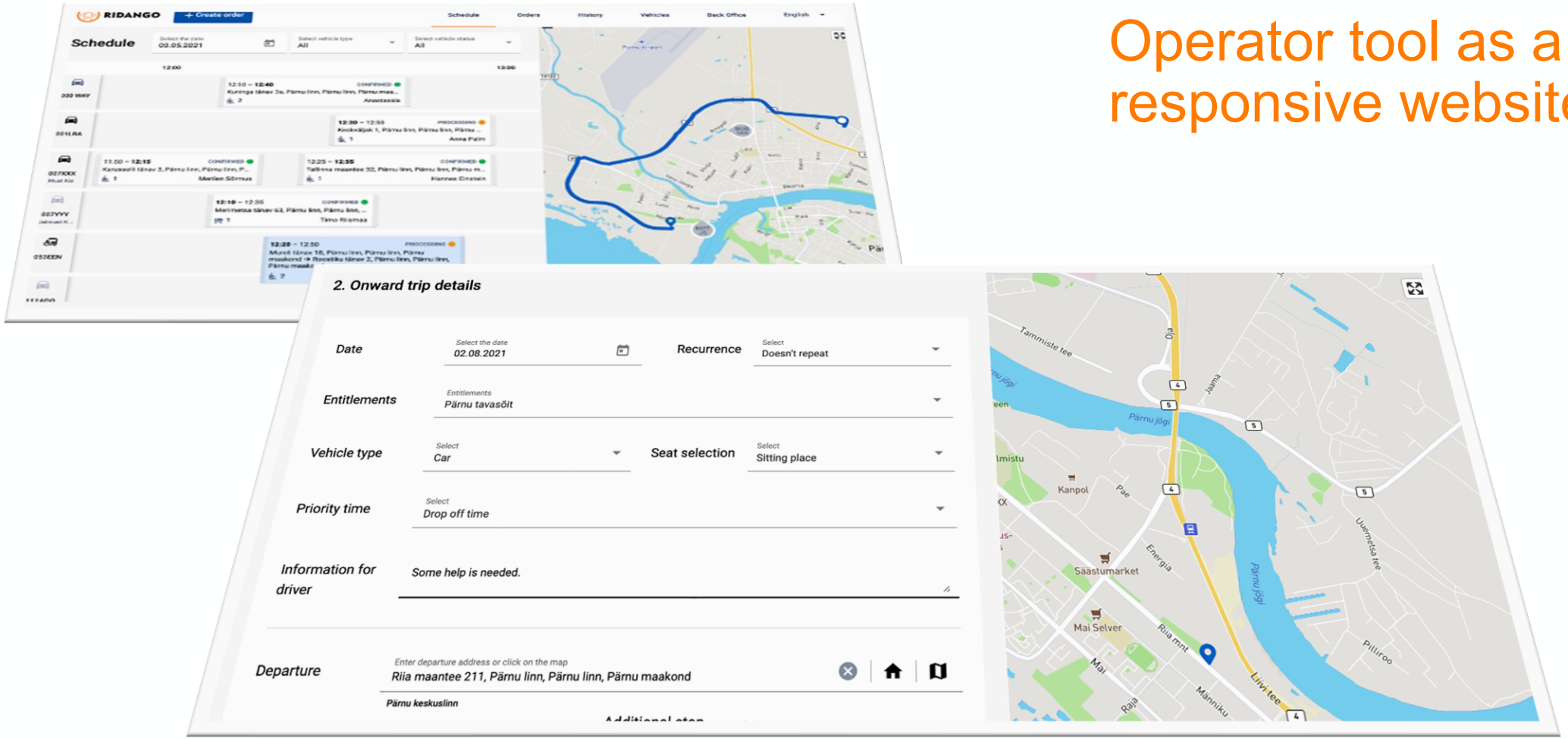
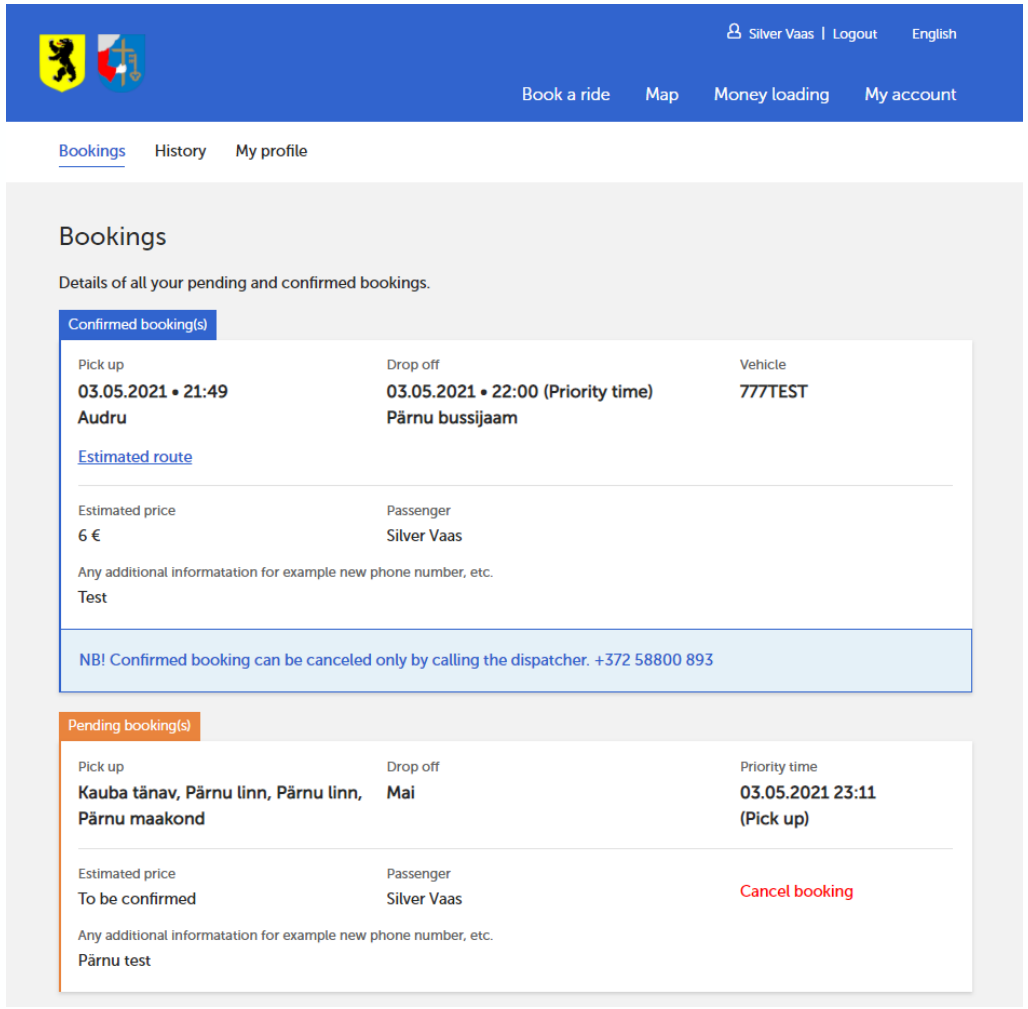
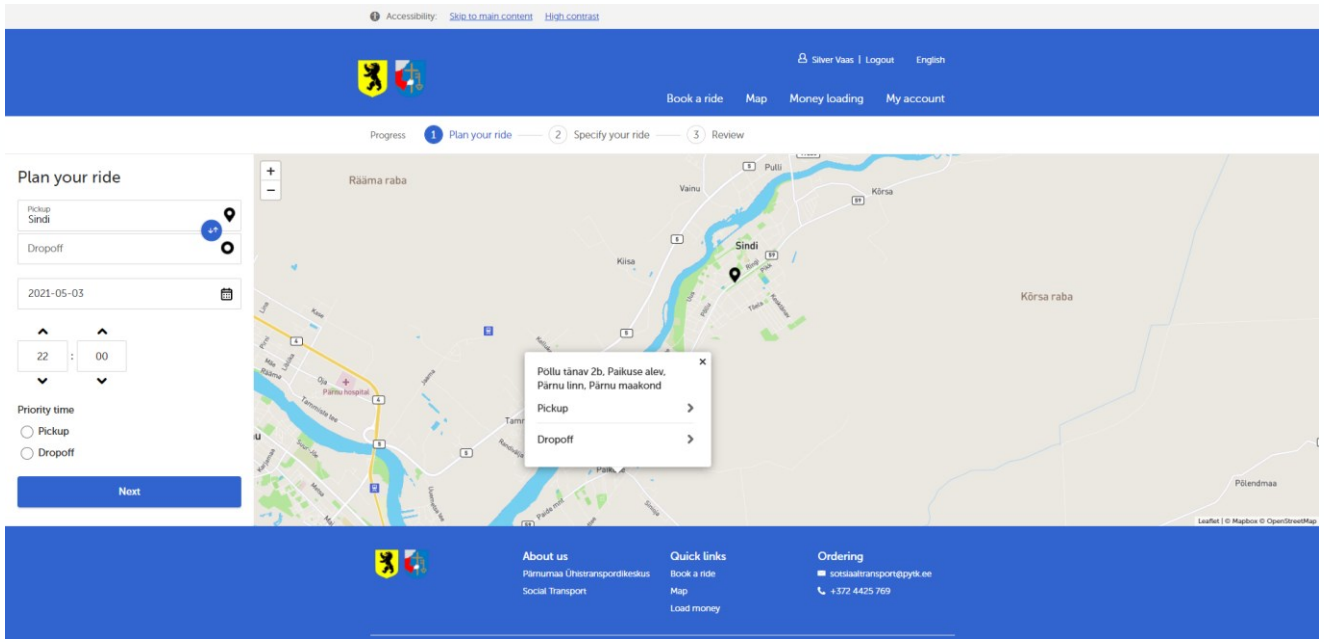
Operator tool as a responsive website







Customer can specify a pickup and drop-off location and time

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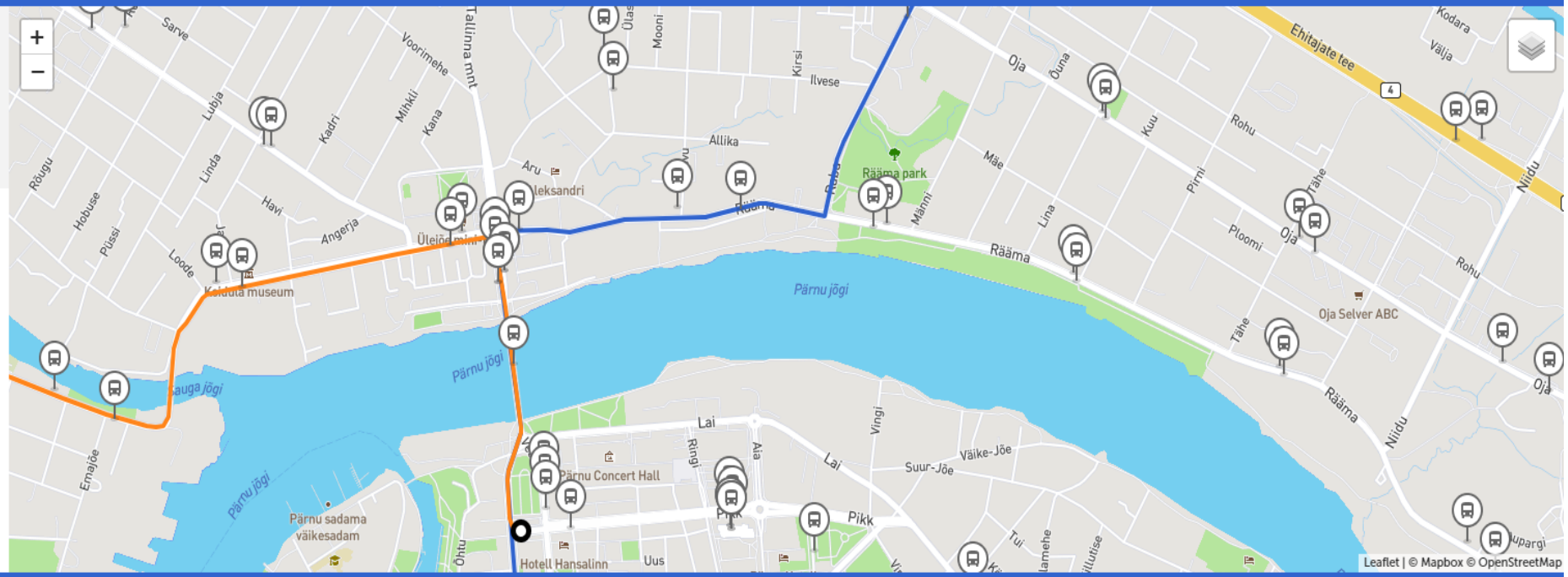
Book a ride Map Money loading My account

Public rides

Here you find public rides in the region. Call the dispatch to reserve a seat.



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Thank you