Technische Universität München

euMOVE
European Mobility Venture
Final Presentation

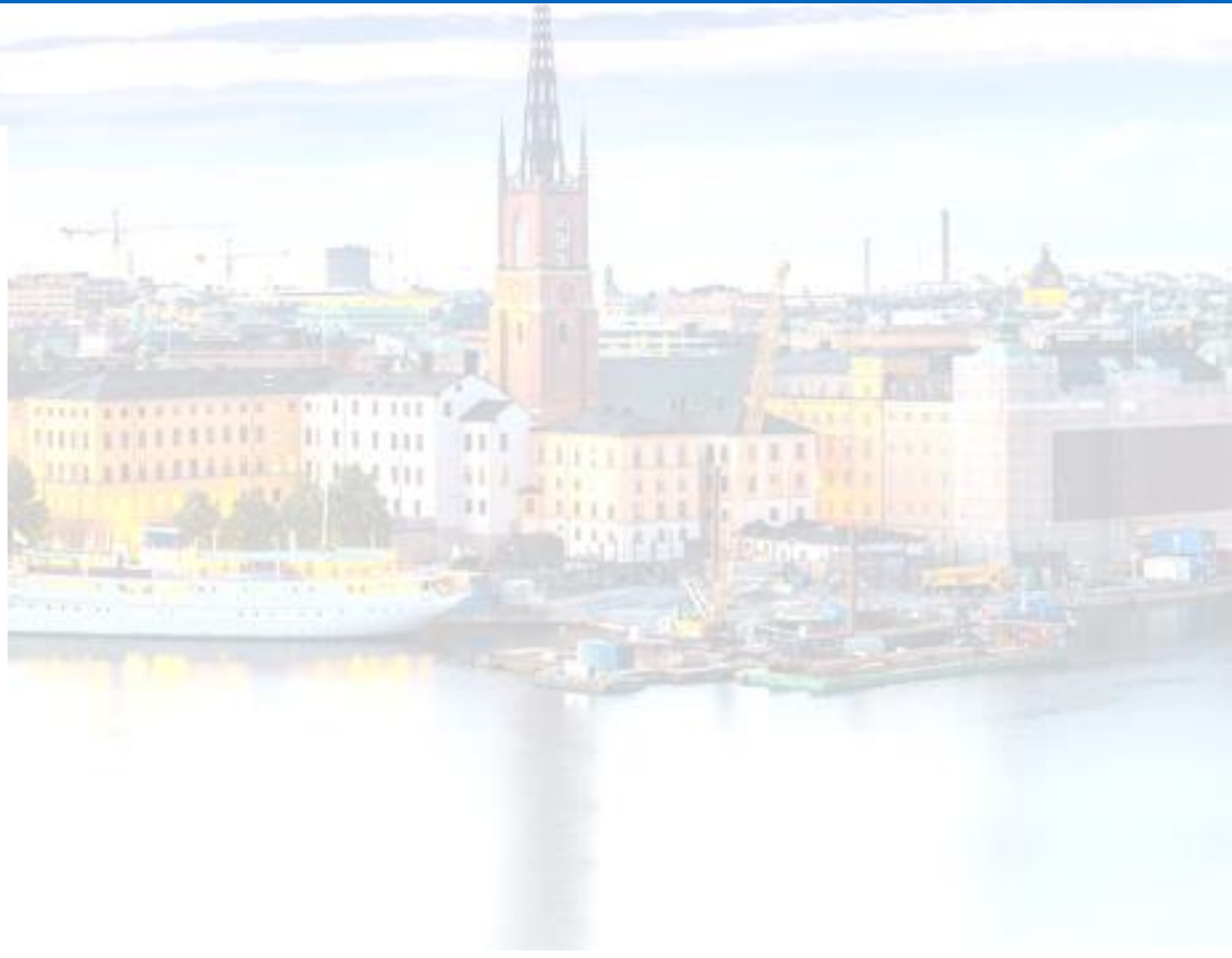
Technical University of Munich

Agenda

- The Choice of the Cities
- The Team
- Introduction
- Clusters & Measures
- Conclusions
- Open Discussions

The Choice of the Cities

- City Characteristics
- Similar Challenges
- Success & Innovation



Stockholm

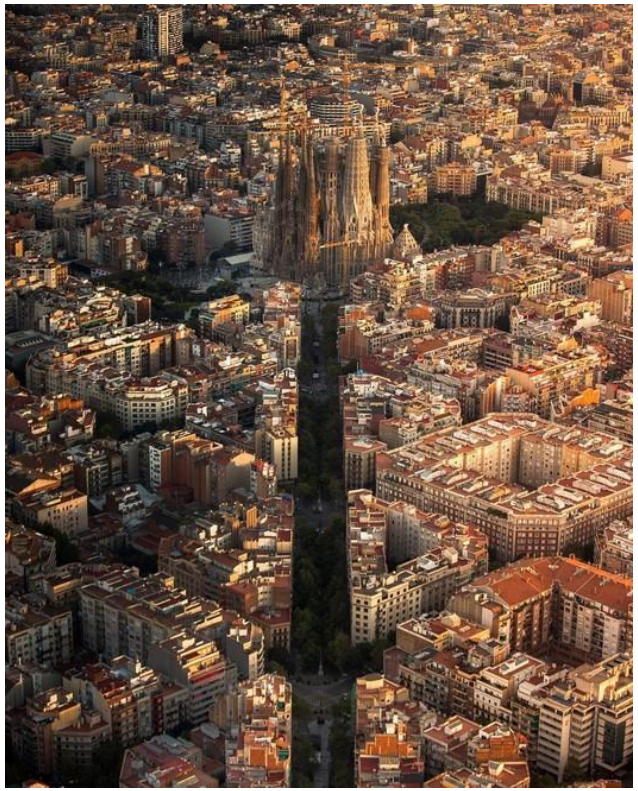
MUC → STO → MUC

Tallinn & Helsinki

MUC → TLL → HEL → MUC

Barcelona

MUC → BCN → MUC



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Challenges of Munich

Air

Time

Space

How to tackle them

- Electrification and automation of traffic systems

- Development and integration of mobility options

- Redesign and network of mobility spaces

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Electrification and Automation of Traffic Systems

- Sohjoa Baltic & Fabulos (Tallinn & Helsinki)

Sohjoa Baltic & Fabulos Projects

Implementation of Autonomous Buses in PT

Air Time Space

Challenges

- technological readiness
- financing
- application areas
- humans and their driving behaviour
- perceived safety
- legislations
- current design of transport plans and cities

Applicability to Munich

- analyze current laws
- educate and inform citizens
- Easyride - Automated and Connected Driving in an Urban Context: pilot project in Munich

Development and Integration of Mobility Options

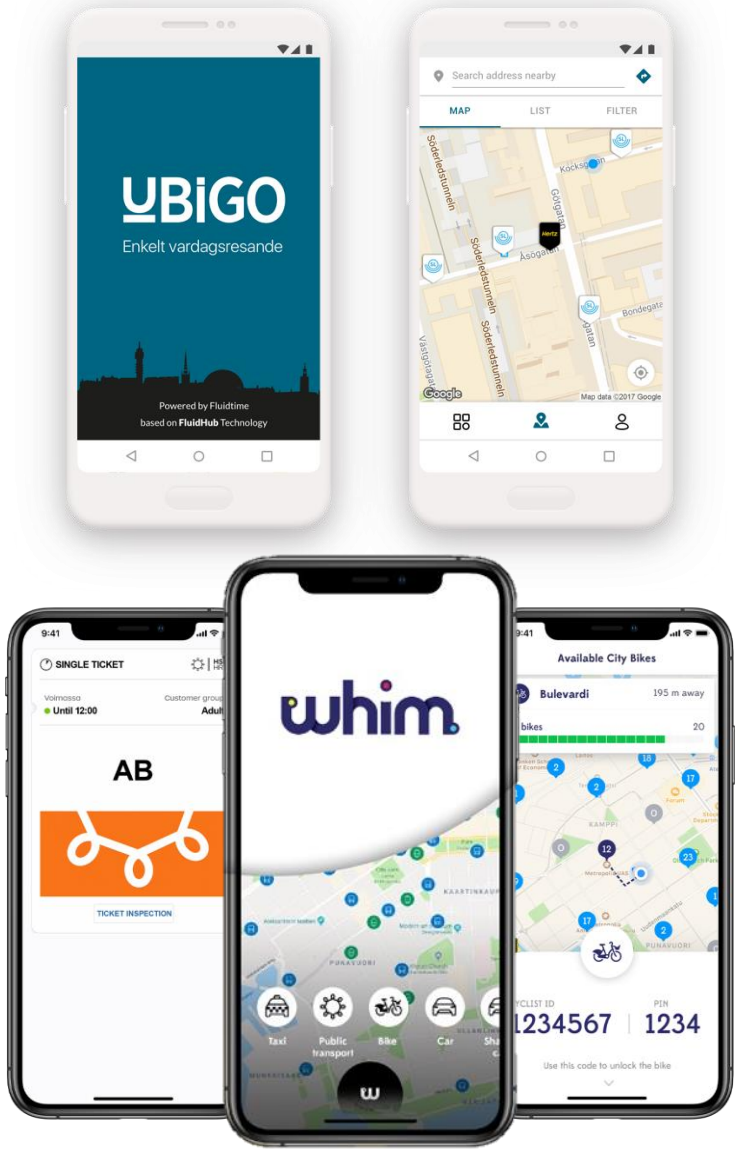
- UbiGO (Stockholm) & Whim (Helsinki)
- Open Data (Helsinki)

UbiGo(Stockholm) & Whim(Helsinki)

Mobility as a Service

They provide access to these modes of transport: public transport, bike sharing, car sharing, taxi, car rental and e-scooter (Whim).

The apps enable the users to plan trips by providing information on travel times, fares and departures.



Challenges

- structural model - beneficial for everyone
- willingness to share customers and data
- collaboration
- PT operators - bureaucratically complex procurement procedure
- awareness for the collective goals

Air **Time** **Space**

Applicability to Munich

- collaborate and make it happen
- private car ownership
- opens up a new customer group: car owners
- convenience of subscription model
- MaaS integrator: PT operator or 3rd party

Open Data

as an Enabler of Mobility Innovation

Over 1000 data sets have been created so far: Forum Virium (City Innovation Office) have lead the project

Mobility service provider are obliged to open their APIs since July 2018: A nation wide legislation to support mobility innovation

Challenges

- quality and structure of data
- maintenance of data
- data sharing regulations: owner, access, purpose of use etc.
- the cities to support companies in using open data

Air - Time - Space indirect effects

Applicability to Munich

- innovation and new businesses
- huge public benefit
- public - private collaboration
- not personal but collective data
- necessary legislations and incentives

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Redesign and Network of Mobility Spaces

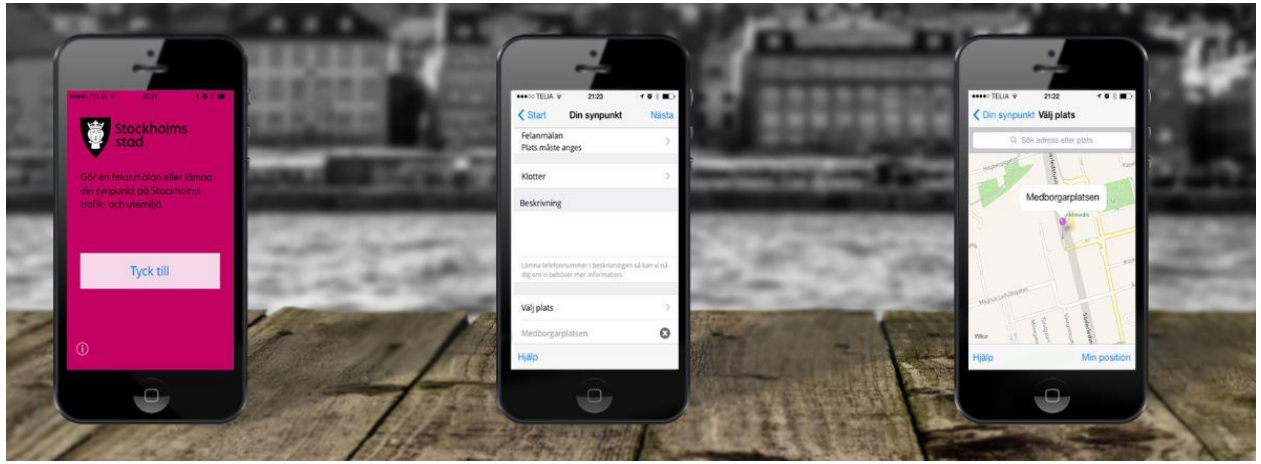
- Tyck Till (Stockholm)
- Free PT (Tallinn)
- Summer Streets (Stockholm)
- Superblocks and Supporting Measures(Barcelona)

Tyck Till

Stockholm's Mobile Application & e–Service for the Citizens

Tyck Till (english: *Leave a comment*) is the dedicated mobile app and an e-service provided by the City of Stockholm to engage its citizens in the city live actively.

Specific examples of the use of the app: reporting a hole in the asphalt or bad signage.



Air **Time** **Space**

Solved Problem

- in 2016 10.000 stockholmers used the app
- keeping in touch and knowing the opinion of every citizen
- helping the municipality to know in real time what is happening on each and every street
- engadging citizens in city's life, in order to keep better care of it

Applicability to Munich

- when advertised properly and with a support team in the back, it can only be a success
- a very good way of keeping the communication between the city administration and citizens
- it engages the citizens in a modern, fun and pleasant way to participate actively in the city's live

Free Public Transport

For Tallinn residents

Tallinn was the first European capital that offered free public transport for its citizens. It happened in 2013.

Main problem solved: people who lived in Tallinn were not oficially registered there.

Challenges

- not easy to asess the long term results
- social meaning and comfort of car ownership
- 12 million euros revenues from ticket sales in 2012 vs. 1000 euros per year in tax revenues from each resident

Air | Time | Space

Results & Applicability to Munich

- 400,000 people registered vs. 450,000
- in 2014: the use of PT increased by14%
- share of car usage declined only by 5%
- the long term effects should be reassessed to see if the measure is transfareble to another city

Summer Streets

Temporary Pedestrian Zones

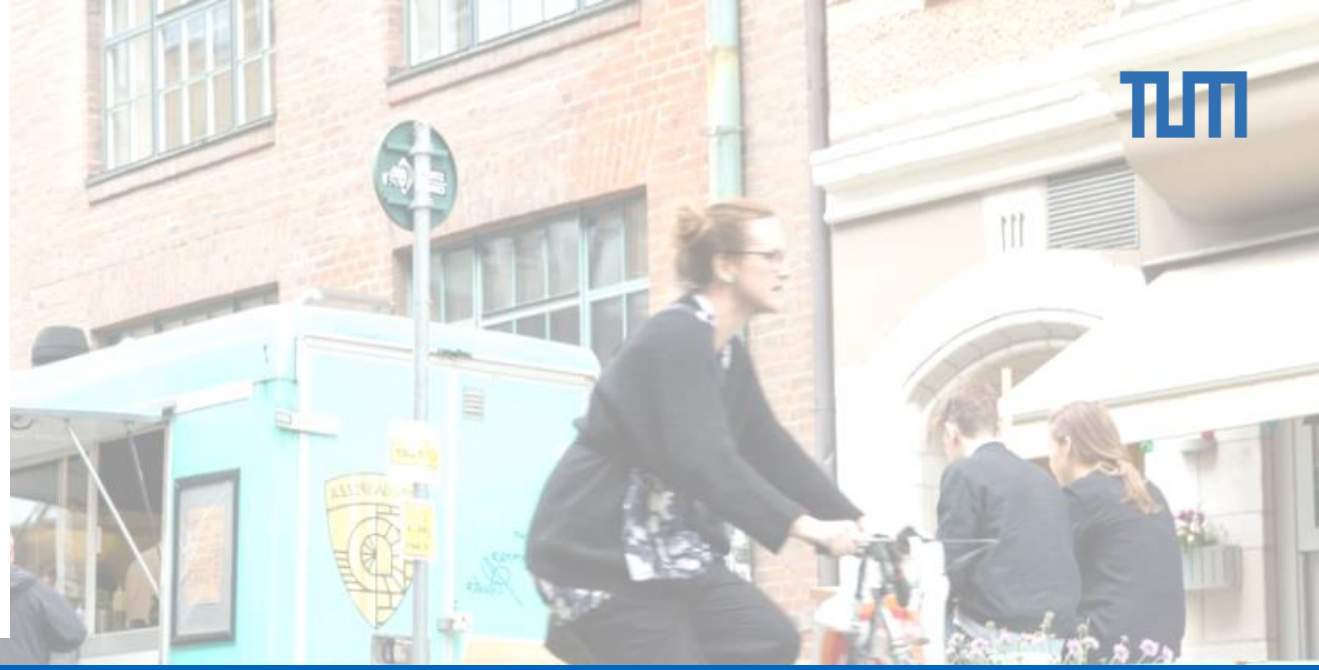
Normal streets are trasformed and converted into pedestrian streets.

The implememntation of the concept helped businesses in the neighbourhood area (pubs, restaurants, caffes, etc), and promoted walking and cycling.

Liveability increased.

Solved Problem

- reintroduces neighbourhoods as places to travel actively by foot, bike or scooter
- represents a powerful way of modelling a car-free future



Air **Time** **Space**

Applicability to Munich

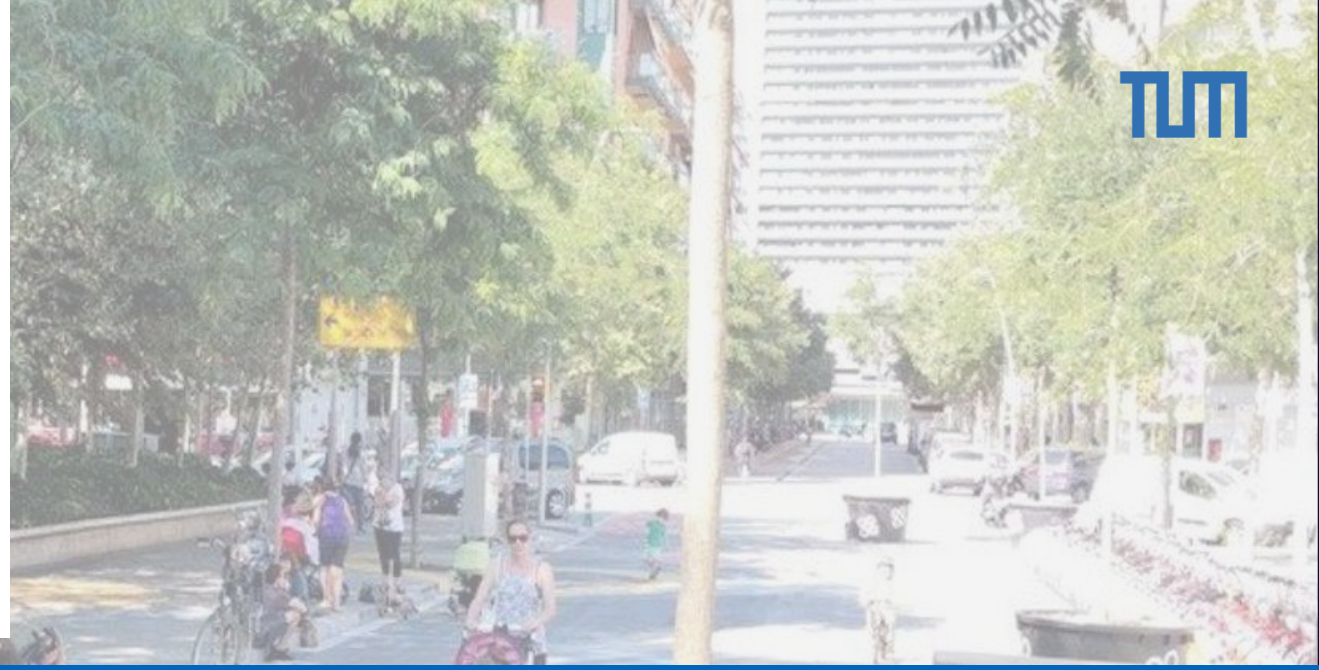
- such an urban intervention will always attract visitors
- gives the possibility to test, evaluate and implement different solutions
- a space is created for people to raise questions and imagine what could be done with the streets if they were set up differently

Superblocks

Urban Mobility Plan

Challenges

- public acceptance and streamlining participation process
- gentrification during the transition period
- supporting public transport expansion and adaptation



Air **Time** **Space**

Applicability to Munich

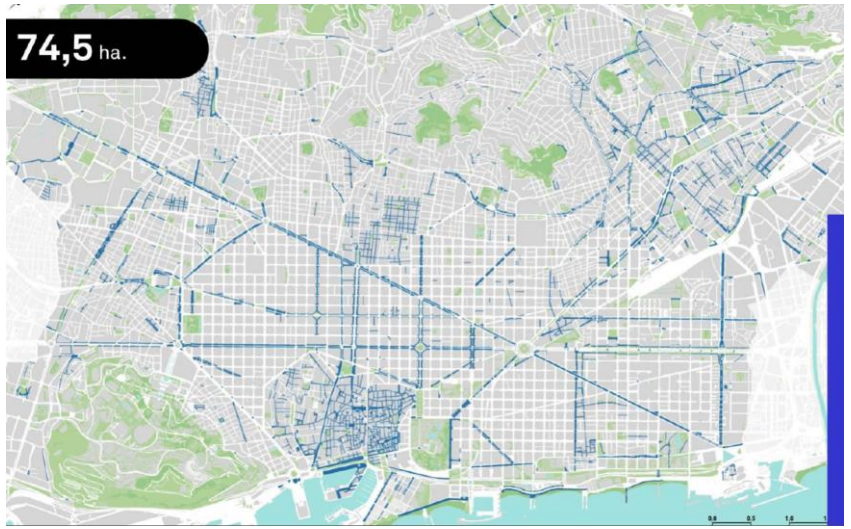
- similar projects on a lower scale
- planned, transparant and all inclusive participatory process at all stages
- success does not depend on a quadratic structure
- higher density would be helpful

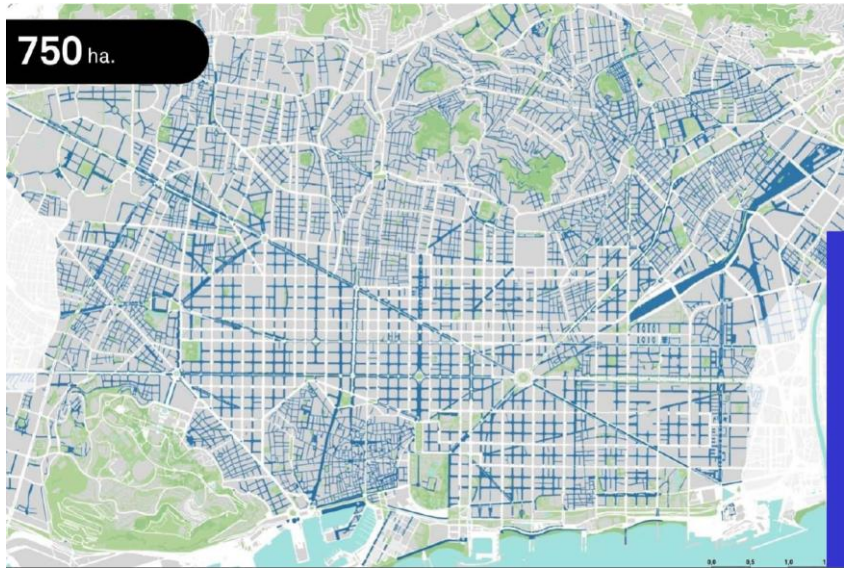
Orthogonal Bus System

Complimentary & Green PT System to Superblocks

Pacification and Increase of Pedestrian Space

Complimentary Pedestrian Safety System





Implementation

- step by step expansion
- speed bumps, radar sensors and tactical urbanism in Superblocks as infrastructure

Air **Time** **Space**

Applicability to Munich

- supports the appeal for pedestrian friendly area in in the inner city
- infrastructure for active mobility and reshaping urban spaces.

Conclusion

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Key insights from our experience

- Active mobility and aiding infrastructure is of utmost priority
- Re-imagining car free urban space with supporting public transport and shared usage
- Citizen participation, collaboration between competing stakeholders and transparent planning via open data

Open Discussion