Re-humanization of cities: mobility and public space innovations



Iván Tosics,

URBACT Thematic Programme

Expert





Claus Köllinger, Lead Expert, Space4People



Roland Krebs, Lead Expert, RiConnect







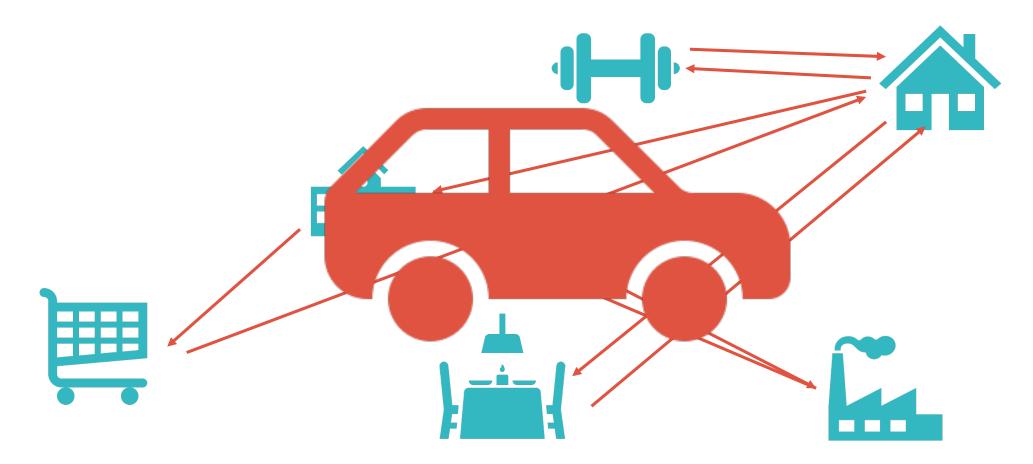






#WalkAndRollCitiesWhere streets belong to people!

The challenge to living well in a city













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WHAT is Walk&Roll cities?

HOW did we get here?

Rehumanizing our cities - **visions**

Innovative **tools** to bring visions to life

HOW can we make this happen?





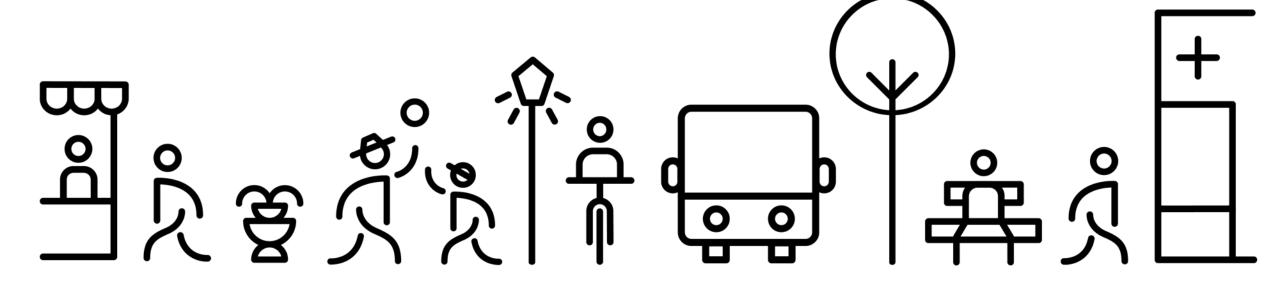






WHAT is ...

#WalkAndRollCities
Where streets belong to people!



Walk'n' Roll Cities: an URBACT cooperation in mobility and public space









- Urban Policy Learning Platform
- Focus: mobility and public space
- Spatial cover: from metropolitan level to neighbourhood and street level
- Examples of topics:
 - Metropolitan transport and local active mobility
 - Integration of infrastructures
 - Intelligent parking solutions
 - Changing the mobility mindset of people
 - Placemaking











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Timeframe and tools of the cooperation

The cooperation is planned until the end of URBACT III, i.e. summer 2022.

Two main tools:

- Thematic meetings: webinar 1 (Nov 2021), webinar 2 (5 April 2022) and a closing seminar (6-7 July 2022 in Barcelona).
- LinkedIn group: https://www.linkedin.com/groups/8964194/ serving as a sharing platform for the products of the three APNs.

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URBACT City Festival: session on mobility and public space solutions

Paris/Pantin, 14-16 June (appr. 450 participants)

What (specific activity)	When (length in minutes)	Who (which speaker)
introduction	3 min	Iván Tosics moderator
LE of RiConnect to interview 1-2 city representatives of the network	14 min	Roland Krebs LE with city representatives
LE of Thriving Streets to interview 1-2 city representatives of the network	14 min	Béla Kézy LE with city representatives Patrizia Marani (Parma) & Daan Jansens (Antwerp)
LE of Space4People to interview 1-2 city representatives of the network	14 min	Claus Köllinger LE with city representatives:
moderated discussion with the city representatives about the difficulties to discuss and implement the mobility innovations and changes in the use of public space	10 min	Iván Tosics moderator
summary and closing	5 min	Iván Tosics moderator











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How did we get here?





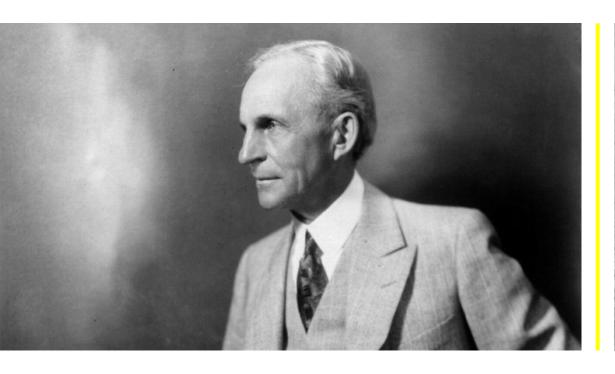








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Where streets belong to people!





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The main reasons for rapid American suburbanization

- the mortgage loan scheme that encourages the construction of single-family homes
- the **U.S. Federal Highway Act of 1956**, which made it possible to multiply the length of the highway network with huge subsidies (construction of a new highway 40,000 miles)
- federal policy to keep gasoline prices low
- the reform of the tax system, after which the primary source of revenue for local governments is the real estate tax
- rebalancing the state aid system to the extra infrastructure costs of extra-urban development.











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Der Bau der ersten innerstädtischen Autobahn zieht seit 1942 eine Schneise durch Detroit.

Starting in 1942, the building of first urban freeway creates a corridor through downtown Detroit.



Photograph © 1979, Jim Sheppherd, Detroit Free Press, Detroit.

Mit dem Einkaufszentrum Northland Mall beginnt ein massiver Suburbanisierungsprozess.

The regional shopping center Northland Mall triggers a massive suburbanization process.

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Suburbanization processes in the US

- In most metropolitan regions of the USA, the size of the built-up area of the city and its surroundings increased much faster than the population growth rate, ie the housing density of the urban region decreased sharply (from 1500-2500 people / sqkm to 800-1300 people / sqkm)
- In the expanding urban regions, single-family homes and private car transport were becoming dominant
- **City of Phoenix**: including agglomeration, housing density decreased from 2431 persons/sqkm in 1950 to 904 in 1990. The increase in the population of the next 40 years means the disappearance of 6,800 sqkm of agricultural land (the built-up area increased from 44 nkm in 1950 to 10,000 sqkm in 1990).











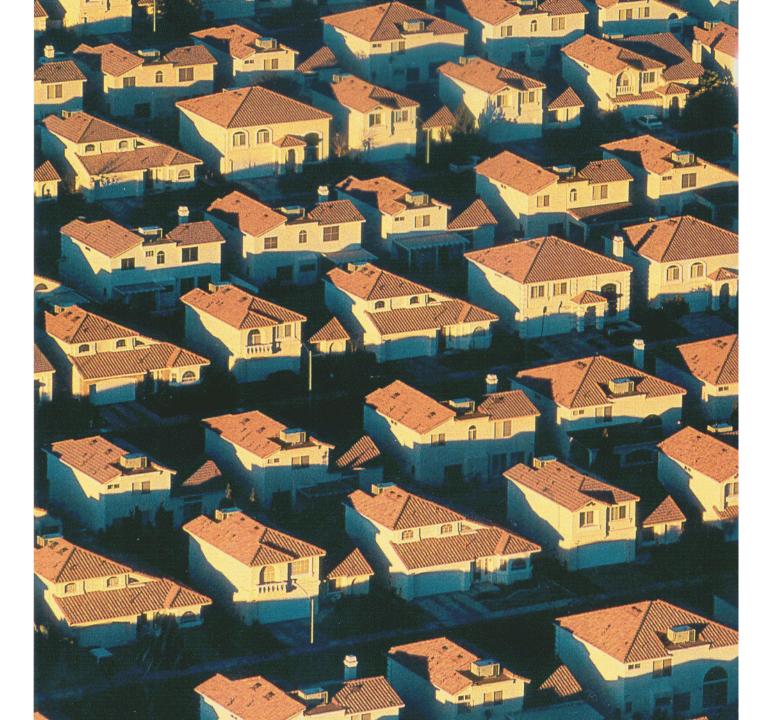
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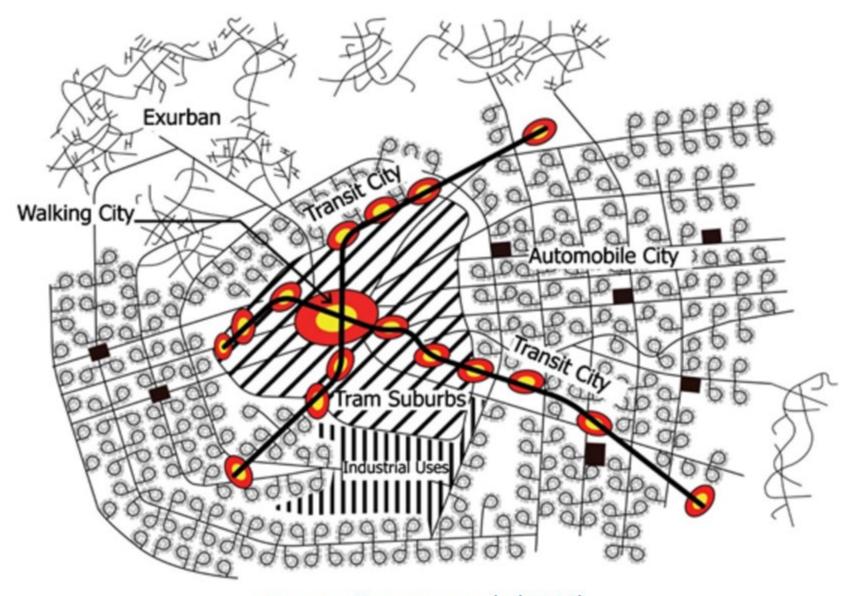






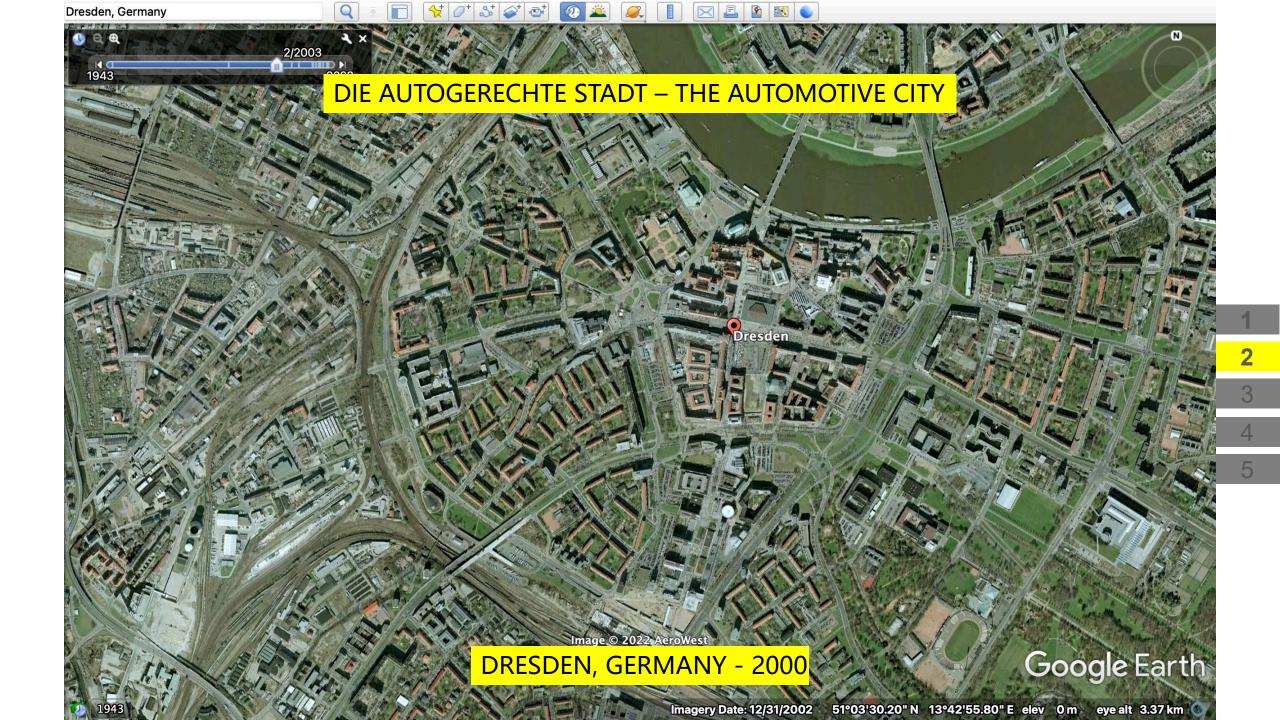
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Source: Newman et al. (2016).









Gamla Enskede, suburb of Stockholm, one of the first garden cities

1958: city planners decided to build a six-lane freeway running through the middle of the suburb, replacing the existing tram connection to the city and slicing the subtle designs of the neighbourhood in two, severing the organic flow of streets and squares

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Source: https://medium.com/butwhatwasthequestion/cities-captured-by-cars-part-1-of-and-you-may-find-yourself-behind-the-wheel-of-a-large-949cc00dd2bd

COVID crisis: further outmigration from cities

Oslo analysis

- Increased outmigration in 2020 in the age groups 25-30 and 60-70. Managers (with at least 4 years of university education) were mostly increasing outmoving, showing a **clear teleworking effect**. Among outmigrants people not born in Oslo are over-represented. 2021: outmigration increased even further.
- Moving from the city in the year of Covid will they return after the pandemic? Marianne Tønnessen.
 Paper for the ENHR2021 conferewnce (Nicosia/online)

US analysis

- Substantial reallocation of housing and office demand away from dense city centres toward city outskirts and suburbs. 'Doughnut effect' – the rise of the suburbs and the slump of the city centre, driven by a fear of crowds and the growth of working from home
- Arjun Ramani, Nicholas Bloom: The doughnut effect of COVID-19 on cities. January 2021 https://voxeu.org/article/doughnut-effect-covid-19-cities



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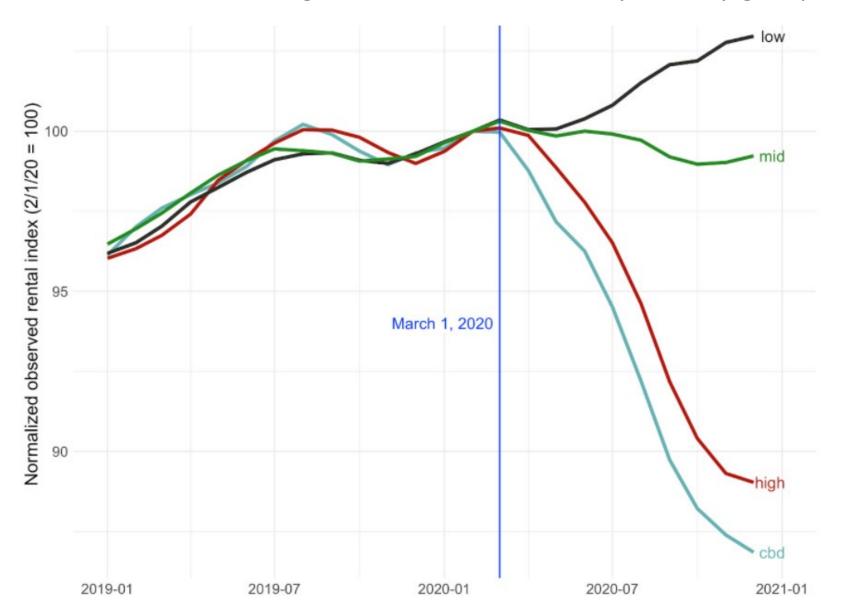








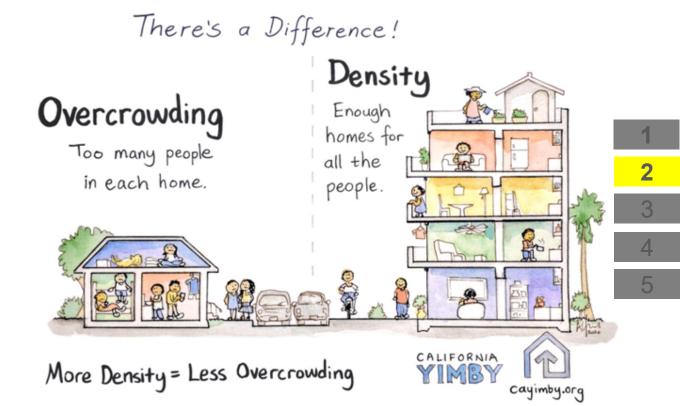
Rental index for 12 largest US metros broken by density groups



Source: Arjun Ramani, Nicholas Bloom The doughnut effect of COVID-19 on cities January 2021

The dilemma of urban density

"It is not density alone that makes cities vulnerable to COVID-19, but the structural economic and social conditions that make it possible or difficult for cities to take suitable measures against the spread of the virus. Cities that are characterized by inequality, poor living conditions and the spatial concentration of poor sections of the population are far more vulnerable than the wealthy." OECD













Ideas about the post-COVID city

How can our existing cities be changed into more equitable and sustainable places, in order to avoid uncoordinated urban sprawl?

- regional view: blended city
- city view: better density in city core, managed suburbanization
- urban mobility: towards active mobility forms and multimodality with public transport
- public space: retrieve public space from cars
- services: allow and strengthen communities, turn places into common use

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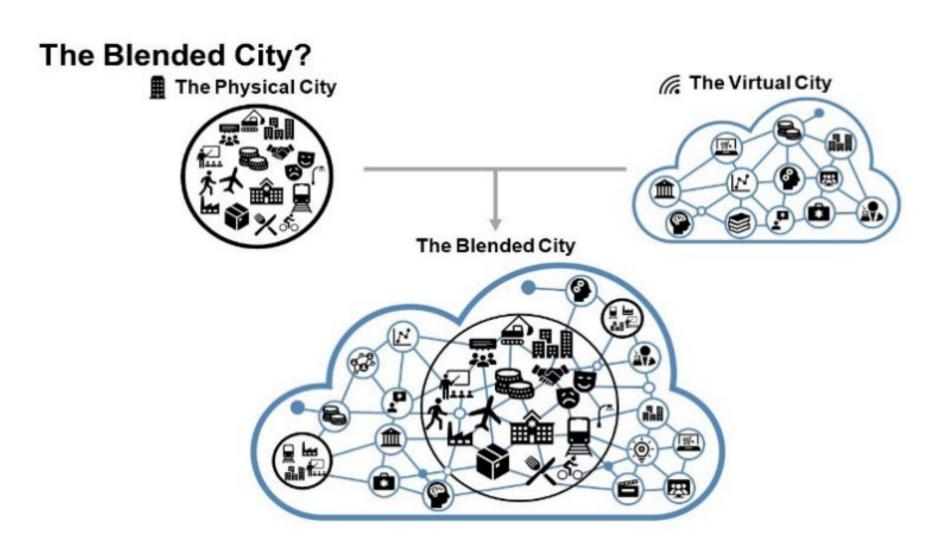








New metropolitan model



Rehumanizing our cities - visions













#WalkAndRollCitiesWhere streets belong to people!

Visions

Accessibility shift

Chronotopia – 15 minute city

Superblocks

"Liberating" city roads from cars

Redesigning the road network

Regional integration?











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Where streets belong to people!

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The re-humanization of cities

- Again, systematic policy and planning interventions are needed, this time in the opposite direction to the 1950s. Parallel and interrelated changes in mobility and public space development should aim to limit car use and support active travel, while transforming public spaces for the benefit of residents.
- Overall Concept: Levine-Grengs-Merlin (2019) 'From Mobility to Accessibility: Transforming Urban Transportation and Land-Use Planning'











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An overarching concept: ,Accessibility shift'

Transportation and land-use planning should be strongly connected, and based on people's ability to reach destinations, rather than on their ability to travel fast.

The new approach should be based on

- connectivity: forms of connection that avoid physical displacement should also be considered;
- proximity: the city must be transformed so that more and more needs can be met within a short distance without the use of cars;
- mobility: addressing the remaining mobility needs should be based on integrating different modes of transport, with a focus on public transport and active forms of mobility, in addition to restricting car use.











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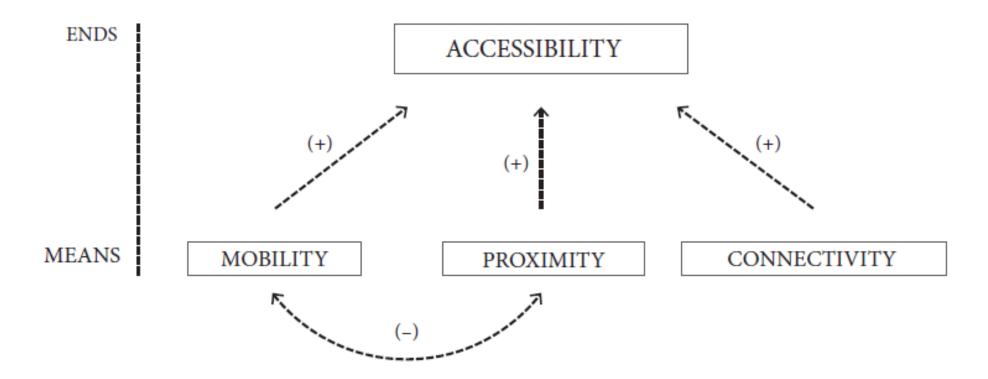


FIGURE I.1 Relationships among mobility, proximity, connectivity, and accessibility in a revised hierarchy of transportation goals

Levine-Grengs-Merlin (2019) 'From Mobility to Accessibility: Transforming Urban Transportation and Land-Use Planning'

Compagnie de Navigation Nationale de Grèce

was in the

4^{***} CONGRÈS INTERNATIONAL D'ARCHITECTURE MODERNE

à bord du S/S «PATRIS II» Marseille—Athènes—Marseille

du 29 Juillet au 13 Août 1933

Organisé avec le concours de la Société «NEPTOS», 254, rue St-Honoré-PARIS

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M. RIBAS, Ricardo.	M. BARDI.	Tab faceloss and



CHRONOTOPIA - MULTIPURPOSE CITY VS THE FUNCTIONAL CITY



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A BOAT TRIP TO ATHENS – CHANGING THE CITIES FOREVER 1933









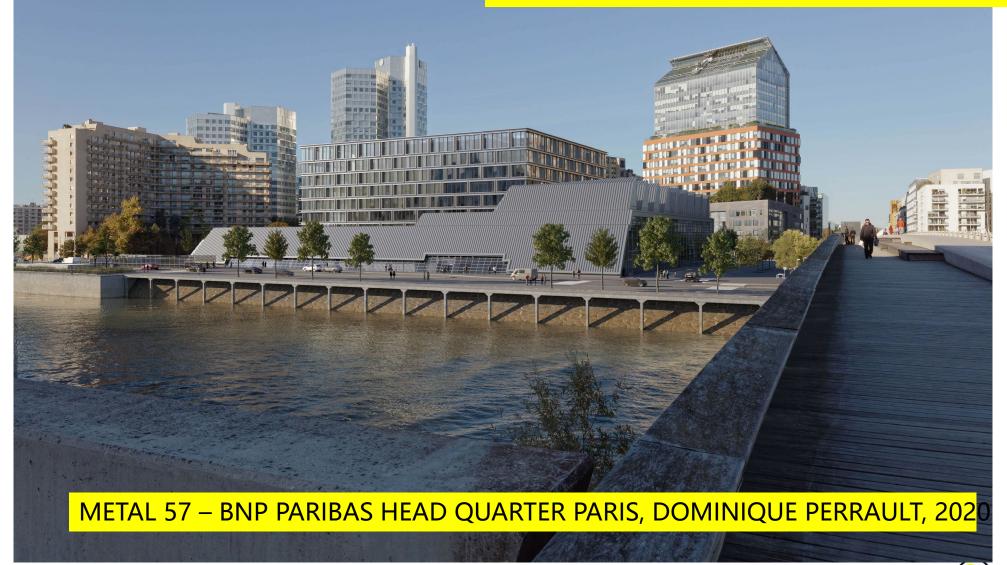








CHRONOTOPIA - MULTIPURPOSE CITY VS THE FUNCTIONAL CITY





























Four models

Using infrastructures to minimize mobility can follow four models:

- the same structure can be used simultaneously for multiple functionalities;
- second, the different use of the same structure at different times;
- third, seasonal variation in use;
- fourth, real-time adaptive change in use through resilient responsive structures.

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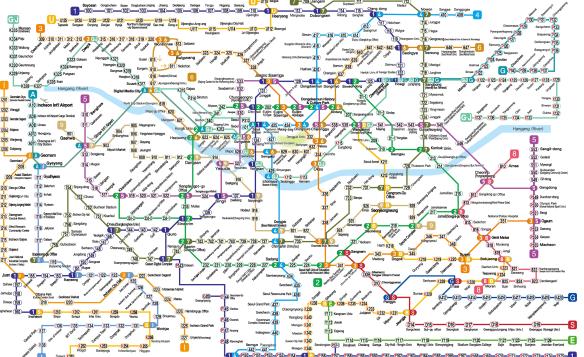






DIFFERENT USES AT THE SAME TIME





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SEASONALLY DIFFERENT USES



A BID FOR SUMMER OLYMPICS – DID NOT GO THROUGH

























,Proximity': innovative urban spatial visions

The public sector has a key role to play in initiating and managing 'proximity' transformations in developing and implementing innovative urban spatial planning visions.

- '15-minute city 'approach
- ,Superblock' idea
- "Liberating" city roads and squares from car traffic (transforming shopping streets, climate-friendly streets, key spaces into public spaces)
- transforming the road network, turning access roads into 'urban boulevards'















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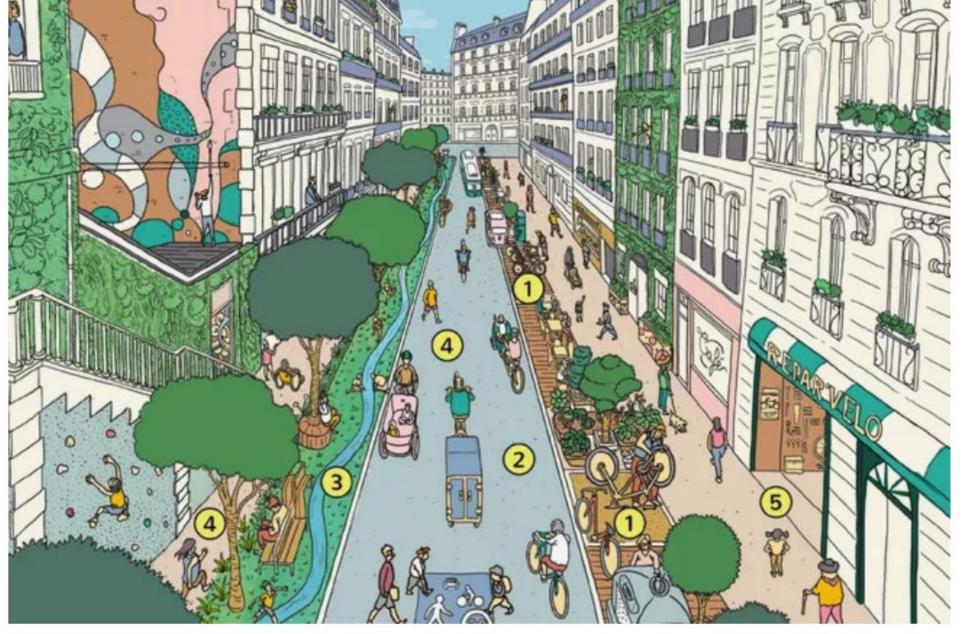


15 minutes city in dense urban areas, 30 minutes city in less dense areas.

Proximity solutions are based on 6 basic factors: work, care, care, learning, leisure, relationships.

The aim is **to break the monofunctional solutions** towards
prosperity, sociability and
sustainability, for which indicators
have been developed.

There are three rules for mixing nearby uses: chrono-urbanism (the new rhythm of the city), chronotopia (multi-purpose functions), topophilia (love of place).



Paris as 15 Minute City. Paris Commun

Source: https://www.treehugger.com/the-15-minute-city-is-having-a-moment-5071739















ILE DE NANTES



#WalkAndRollCities

Where streets belong to people!

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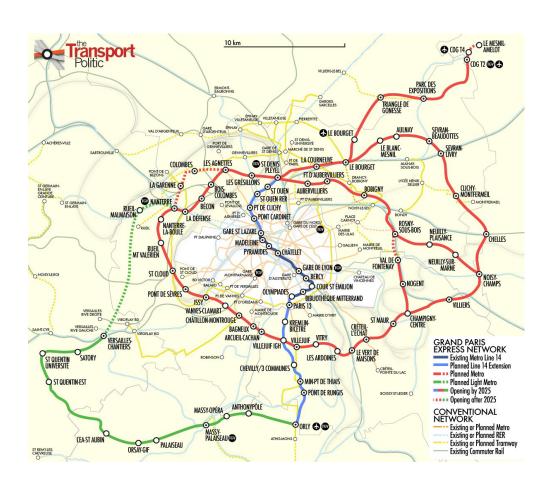
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REGIONAL INTEGRATION OF MOBILITY: PARIS





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GRAND PARIS EXPRESS – OPPORTUNITIES IN THE PERIPHERY



#WalkAndRollCities

Where streets belong to people!

Innovative *tools* to bring visions to life













#WalkAndRollCitiesWhere streets belong to people!

Tools



Superblock



From highways to urban boulevards



Tempo 30



Circular mobility model



Parking management



Pedestrian priority city / Walkable city



School area



Shopping street



Cycling network

Mobility hubs

Micromobility





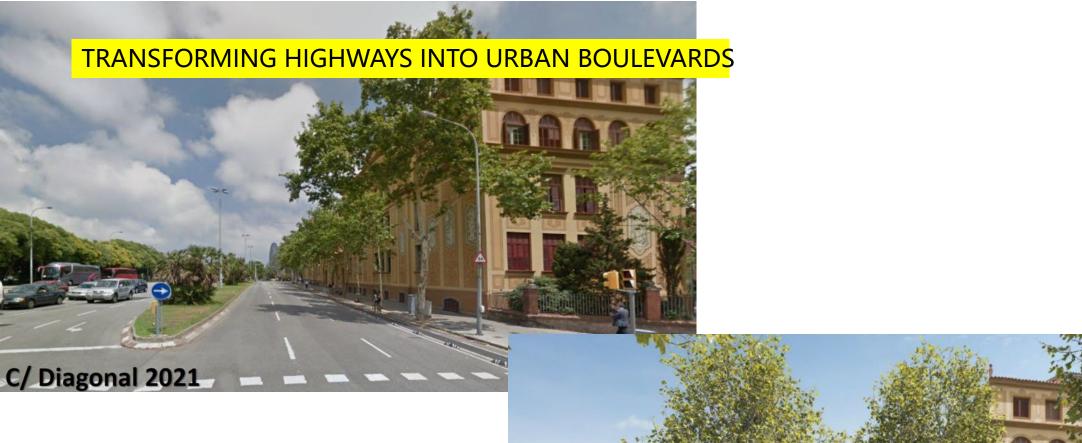






TRANSFORMING HIGHWAYS INTO URBAN BOULEVARDS

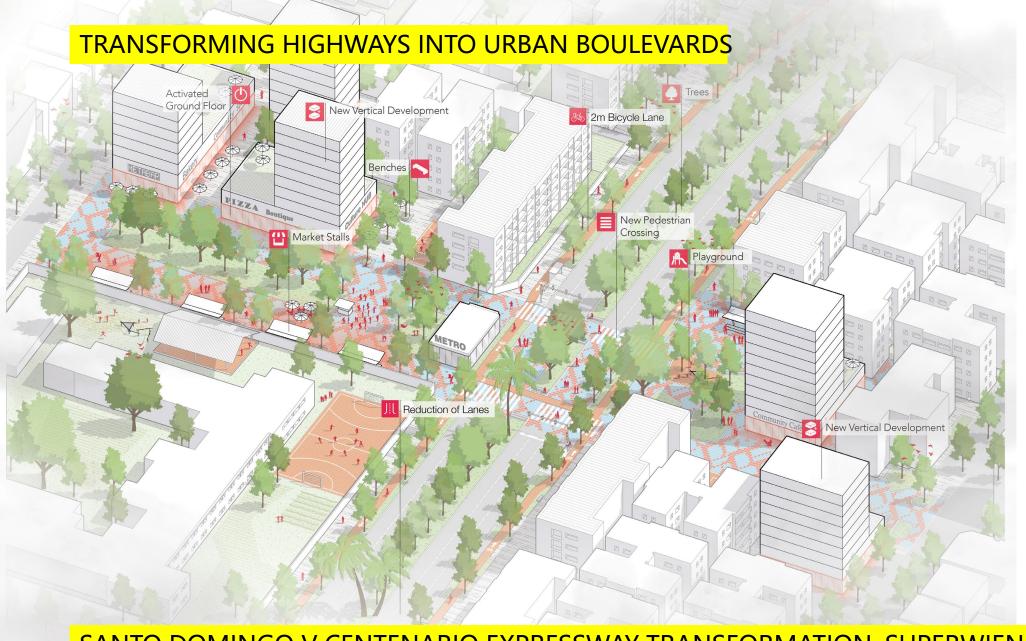




C/ Diagonal 2023 (in transformation)

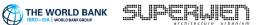
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Source: Silvia Casorrán, Barcelona



SANTO DOMINGO V CENTENARIO EXPRESSWAY TRANSFORMATION, SUPERWIEN, 2022





Tempo'30: Brussels

- In 2019, a new city leadership was elected in Brussels with the following political program: "The government will create a large 30 km / h zone from 1 January 2021, with the exception of the largest roads.,"
- This policy agenda has been implemented in recent years. Of course, many actors initially resisted the idea, but instead of reacting to everyone, the city focused primarily on supporters of the program.
- Tempo 30 became the new standard, so 4,000 "Zone 30" boards were removed and new "Tempo 50" boards were placed in areas with higher speed limits.

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- New signs
- Remove signs « zone 30 »
- Informative signs
- Peinted on the ground







Lesson 1: **get political support,** with concrete deadline.

Lesson 2: Talk about it with your stakeholders (but don't listen to everyone). There were many actors resisting. The city did not react on everyone, but focussed on allies. Over 1000 umbrellas were produced by a group with 30!

Lesson 3: Adapt the legislation and make a new map. Tempo30 is the new normal

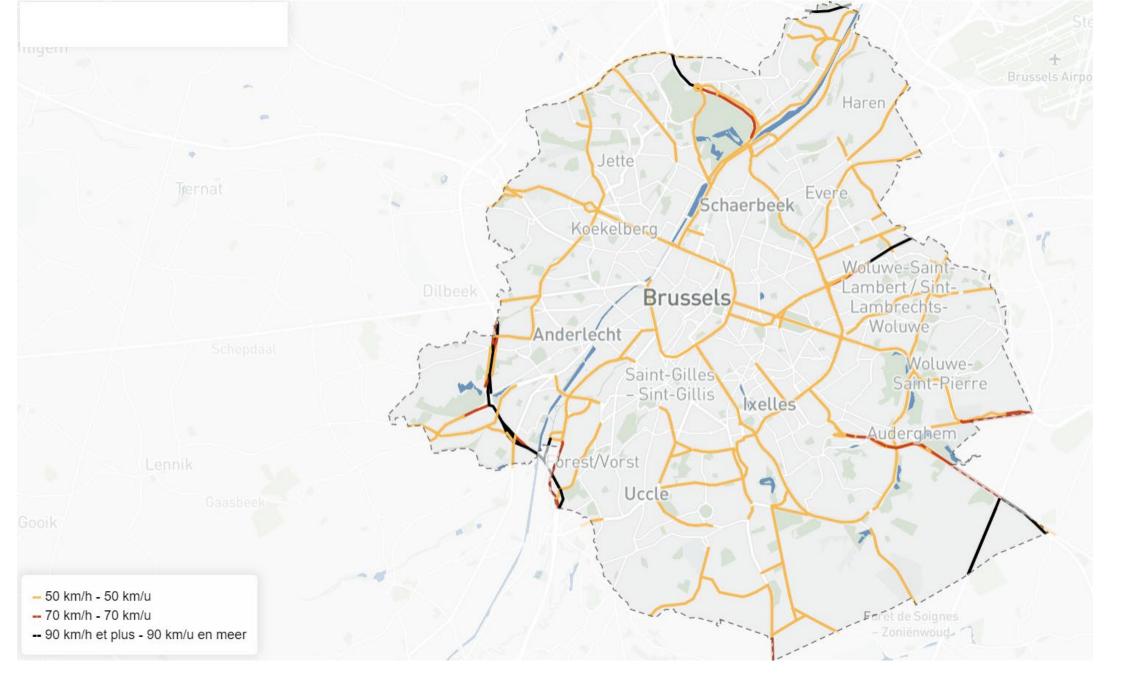
Lesson 4 : **Sell your story to everyone** (and do it on a large scale).

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Source: https://city30.brussels/map/

- **Communication** was very important: the idea was advertised everywhere and the information was mailed to 600,000 addresses. The press and social media sites were full of news about the change. The implementation was carefully controlled and the speed limit was checked thanks to 80 invisible new cameras.
- Monitoring results: recent observations show that the average speed of cars has declined, even on roads that have previously had a speed limit of 30 km / h. The total time spent traveling by car has increased, but not much, while the number of accidents has decreased. Noise levels have dropped: people have even begun to complain about the noise of the tram, which was previously hidden by louder road users.











Tempo'30: Graz – some short facts

- City wide speed limit 30 in place since 1992
- Only exemption is priority roads
 - which were about 220 km of roads
 - and 770 km were residential roads
- -> 85% of traffic takes place on priority roads!

Initial situation at the start of the idea:

Strong opposition from diverse

stakeholders!













Tempo'30: Graz – the key elements

The communication campaign

Used various standard elements such as ttt

Media, discussion groups, leaflets, videos...

Used a multiplier campaigning approach!

- Invited people that talk a lot to others and are trusted persons to discuss the idea of speed 30
- Like taxi drivers, haircutters, bartenders, priests, doctors











Tempo'30: Graz – the key elements

The pilot phase

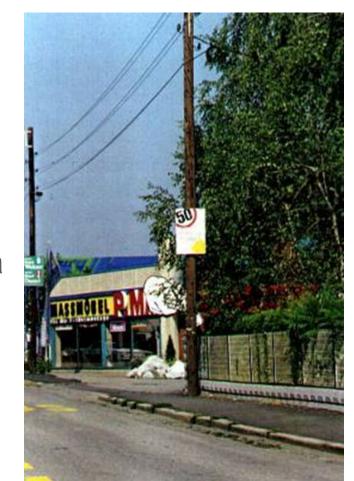
- Oppositions to introducing speed 30 was high start of the 90ies
- Reason: campaign of opponents to fight it.
- City **transformed** their claims for a public vote on the idea to a test-phase first (...well knowing that a vote put a stop to the idea)
- Argument: people do not know what the vote on, since they did not experience it so far.
- -> 2-year test phase starting 1992











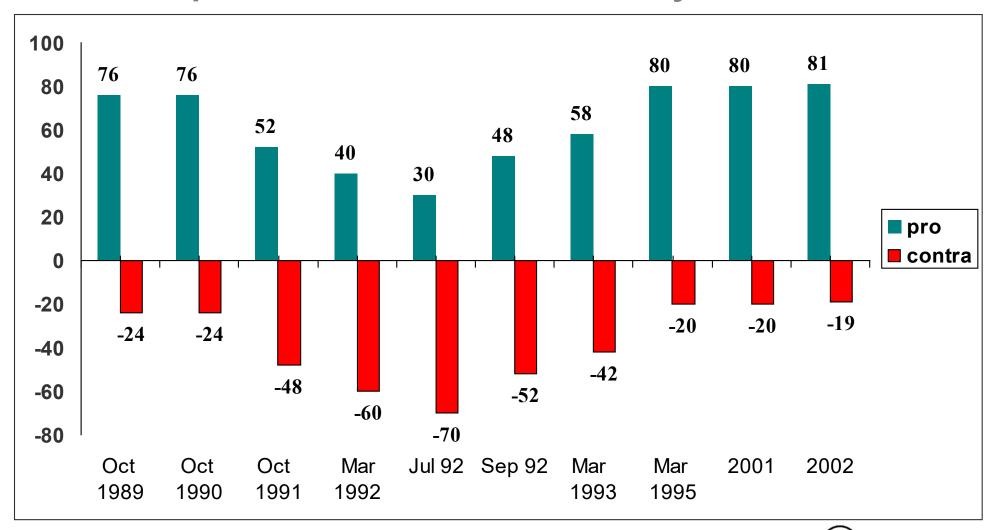
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Tempo'30: Graz – the key elements







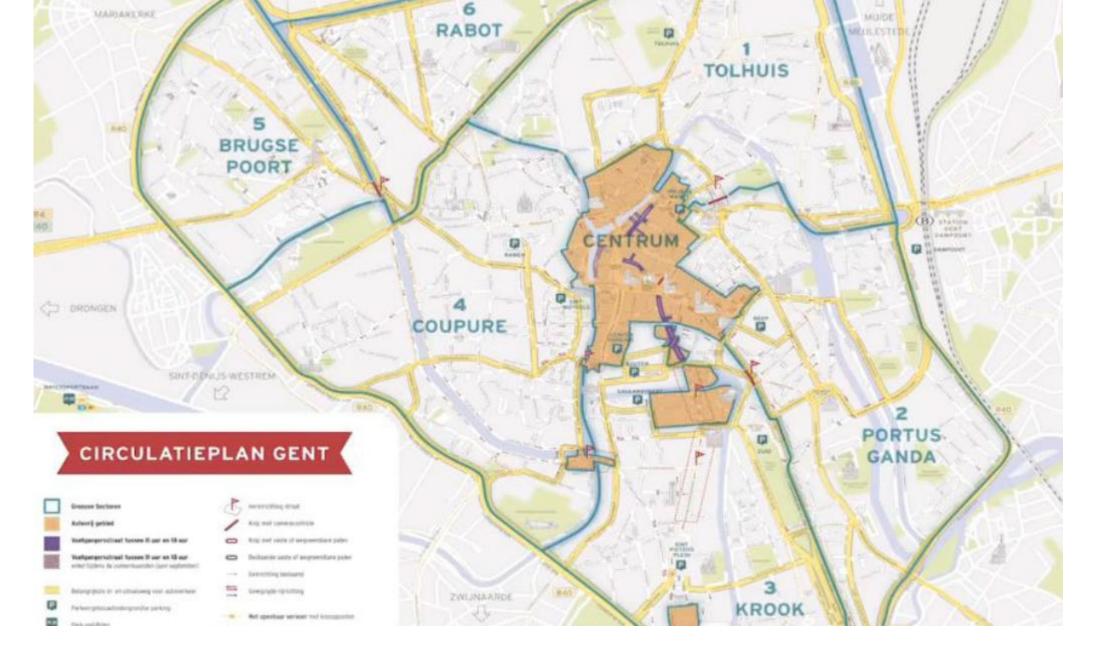






Circular mobility model: Ghent





Source: Ghent Circulation Plan, POLIS, April 2022



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How did we measure the effects?

Intensity counts

- Pedestrian counts
- Bike counts
- III. Intersection counts
- Origin-IV. destination

- users
- Users shuttles
- III. P+R usage







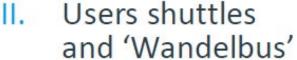
Ex ante measurements -10/2016

Ex Post measurements – 10/2017

Ex Post measurements – 10/2018











How did we measure the effects?

- Travel times
 - Floating car data
 - II. Public transport flow
- 4. Questionnaire data
 - Mobility surveys
 - II. Focus group interviews
- 5. Register data
 - Accident data
 - II. Air quality data
 - III. Economic indicators





Ex ante measurements – 10/2016

Ex Post measurements – 10/2017

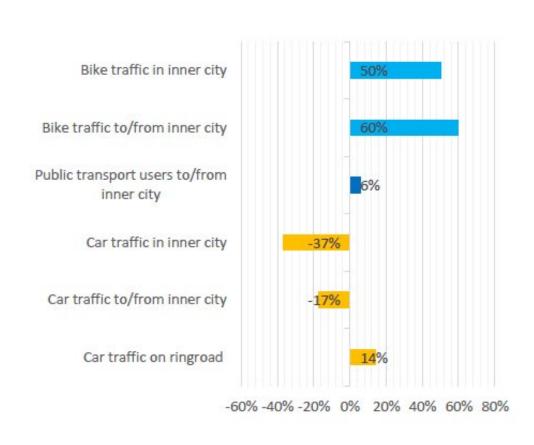
Ex Post measurements – 10/2018

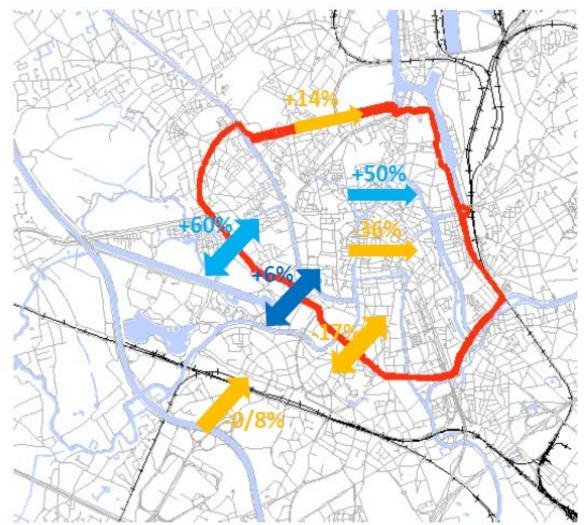
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Use of different traffic modes









BERNARDGASSE IN VIENNA, SUPERWIEN + CLAUS KÖLLINGER, 2022





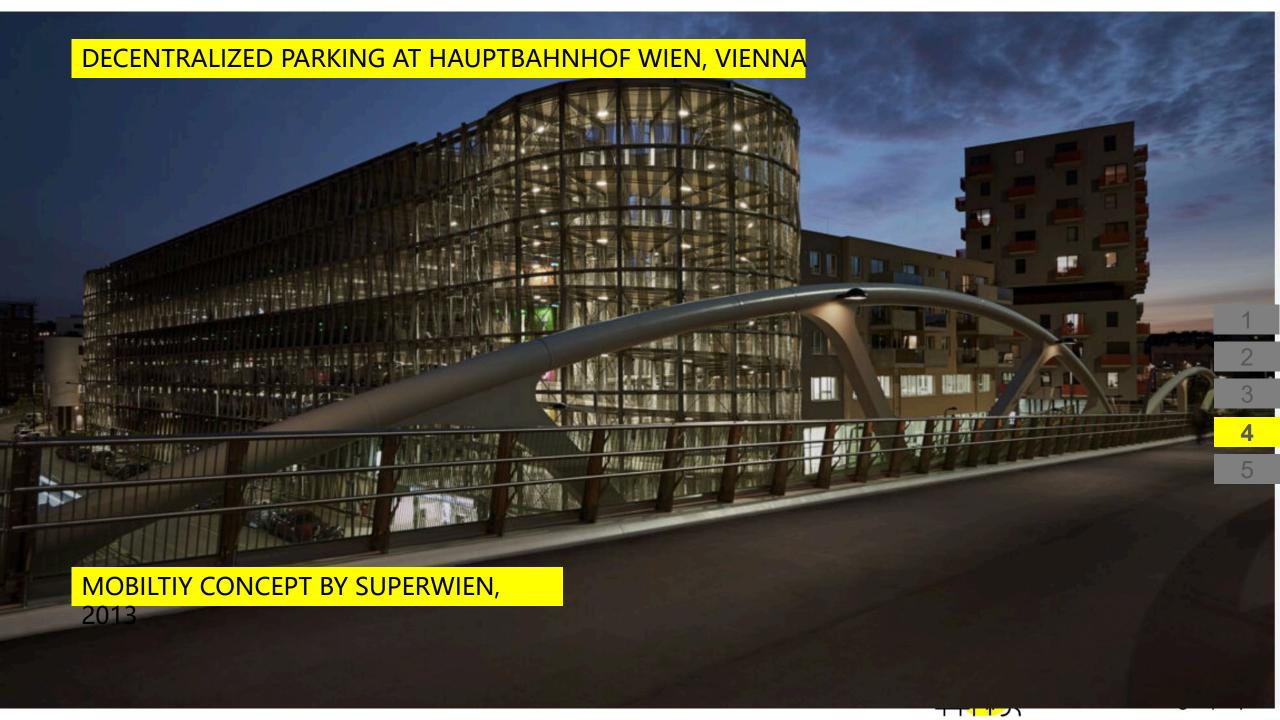


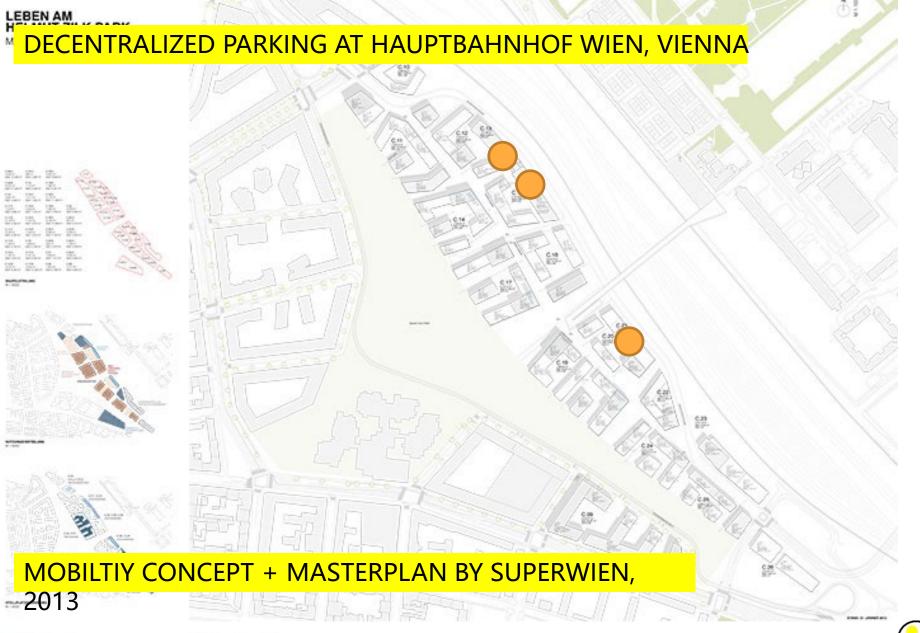






















The Pedestrian-priority city



83.000 inhabitants – 120 km²

itv:

Inner city: 62.000 inhabitants – 5,5 km²









Source: Daniel Macenlle Diaz & Jesús Gomez



1999: just your usual car-oriented city



UNSAFE

POLLUTED 3

AIR

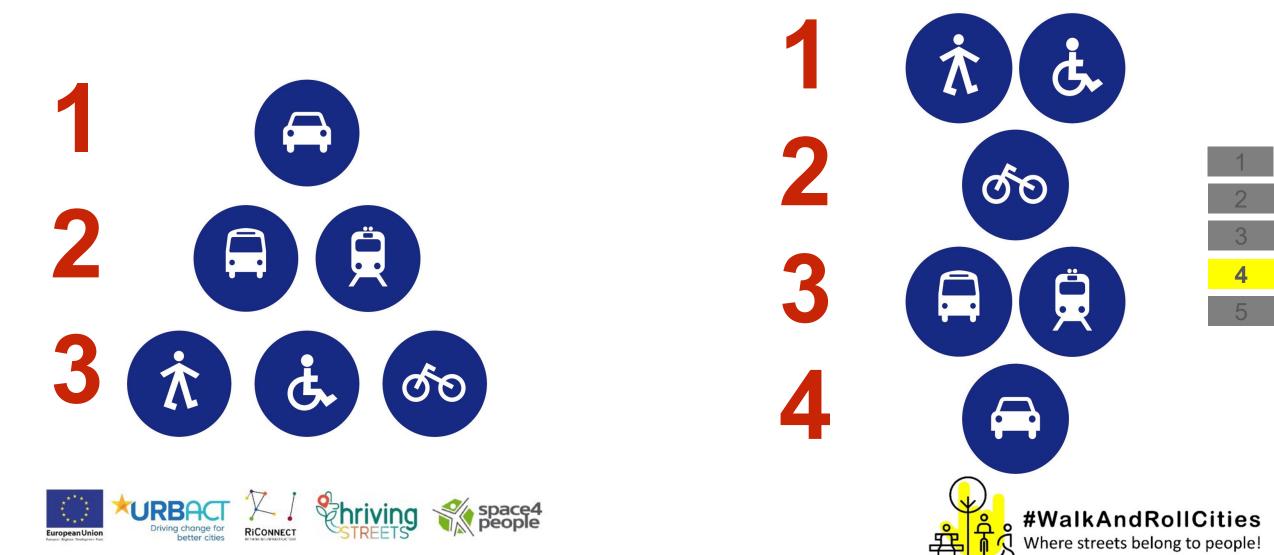
SPACE CONFLICTS

#WalkAndRollCities

Where streets belong to people!

1999 – the start of change

New Mayor - Change the city serving cars into a city serving PEOPLE.



THE CHANGE

WHY?

- Improve urban quality
- Provide universal access
- More public space for social living
- Urban Road safety

HOW?

- Political will and decision
- Coordinated efforts
- Social involvement

WHAT?

- Pedestrian priority
- Road traffic restrictions
- The concept of service / need
- Parking
- Speed limits

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https://www. theguardian. com/cities/2 018/sep/18/ paradise-lifespanish-citybanned-carspontevedra 1

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Absolute pedestrian preference





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Coexistence street



Segregated

















#WalkAndRollCities
Where streets belong to people!

Results

Motor vehicle traffic



Traffic fatalities

1998



2012 onwards 1

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(Same mayor since 1999)











"When you buy a car, you don't buy 10 m² public space with it."

Miguel Anxo Fernández Lores, Mayor of Pontevedra

'Transforming mobility': public transport and active mobility

- Public transport must become a quality service, forming the backbone of an integrated urban transport system and ensuring that cities remain the centers of functional urban areas.
- It is important to increase the opportunities for active forms of mobility: expanding the cycle path network, integrating micromobility forms into the system











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Public transport - the backbone of urban mobility



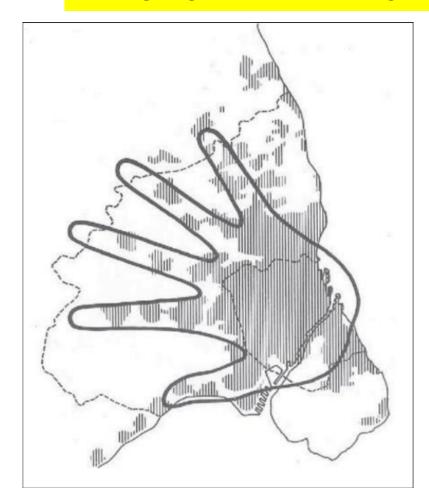


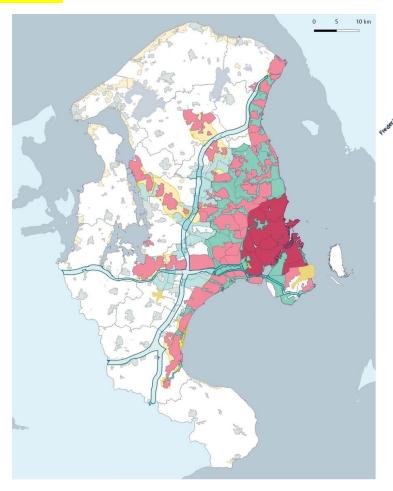














COPENHAGEN'S FINGER PLAN

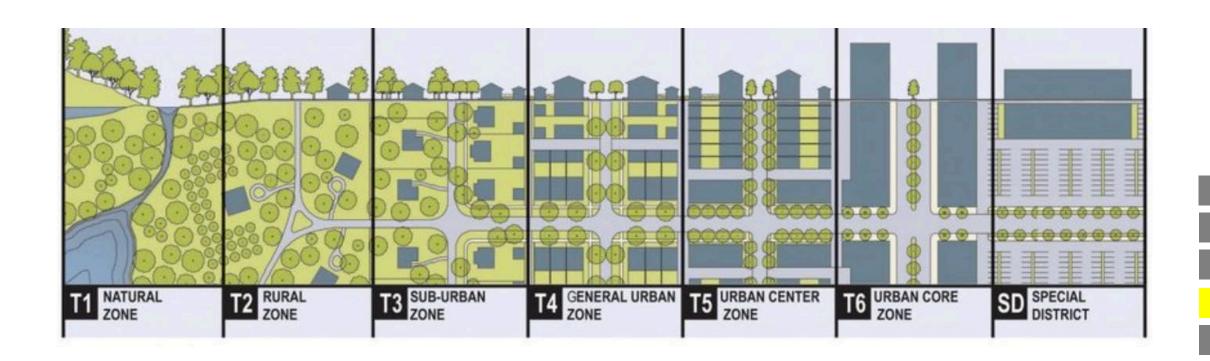












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TRANSEC CONCEPT BY NEW URBANISM, ANDRÉS DUANY













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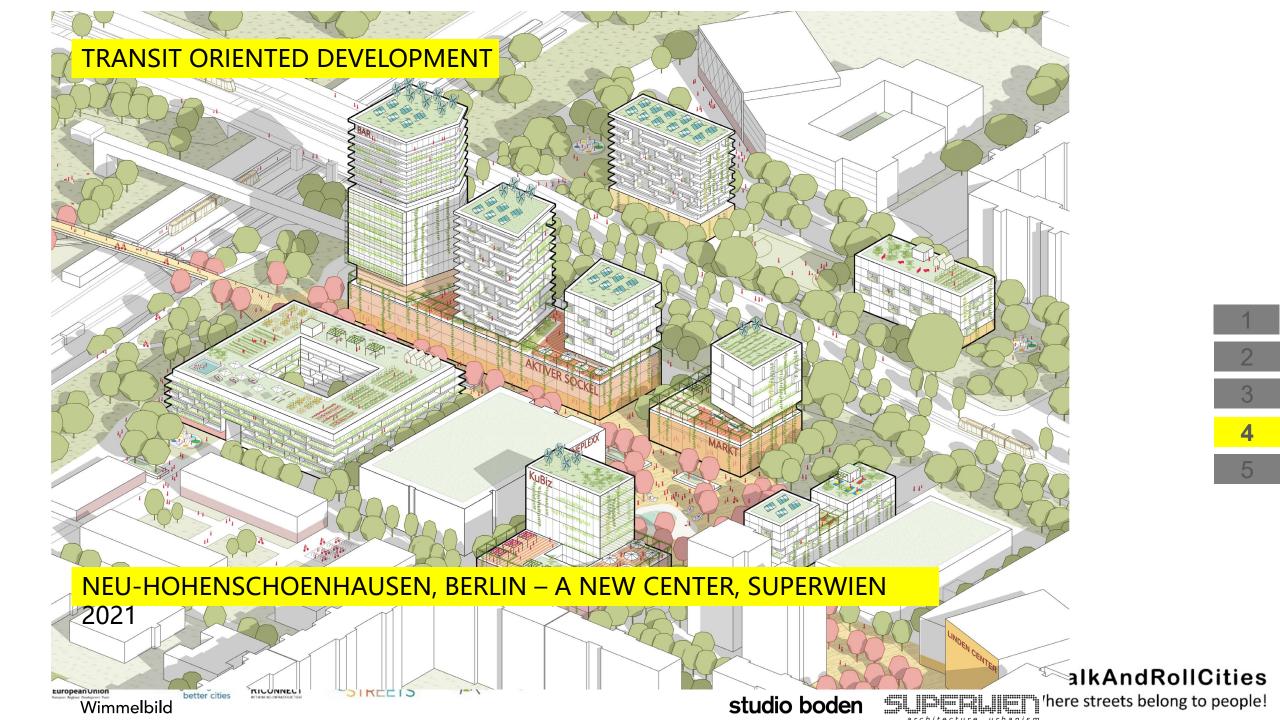












TRANSIT ORIENTED DEVELOPMENT Für uns bedeutet kollektives Planen, in einem Dialog mit Stadtplanern, Landschaftsplanern, anderen Fachplanern und der interessierten Bevölkerung einen Konsens über die Entwicklung eines Stadtgebietes zu erstellen. Wir sehen das Obere Hausfeld als ein lebhaftes Quartier bestehend aus einem engmaschiges Netzwerk an öffentlichen

und halb-öffentlichen Raumsequenzen, das spannende, abwechslungsreiche urbane

Qualitäten erkennen lässt. Der städtebauliche Grundsatz für das Hausfeld ist die Entwicklung von Dichte mit klarem Bekenntnis zu Großzügigkeit auf den Freiflächen am Baufeld, als Beitrag zu Wohnqualität und Privatheit und zu Kompaktheit im öffentlichen Straßenraum zur Stimulierung von Frequenz und Urbanität. Aufbauend auf dem Konzept entwickelten wir gemeinsam mit verschiedensten Disziplinen einen intelligenten Raster, welcher als Basis für die Entwicklung eines Regelwerks für die Implementierung diente. Die Stadtsockelzone gilt als Herz des urbanen Alltags. Daraus resultierte die

zialen und wirtschaftlichen,
aber auch kulturellen Aktivitäten
ermöglichen die Schaffung eines lebhaften
Grätzls. Initiiert werden diese durch
Impulse als strategische Initialnutzungen
räumlicher sowie inhaltlicher Interventionen



Inspirierende Aktivierungsflächen und nutzungs-neutrale öffentliche und halb-private Räume ermöglichen eine kollektive Aneignung und schaffen soziale Kohäsion und Identität. Das Quartiersmanagement ntwicklung als

Neue Qualität des Wohnens

ntwicklung als eren Hausfeld

OBERES HAUSFELD, VIENNA, SUPERWIEN, 2015-2022

führte zu einem Masterplan. Dieser spiegelt ein durchdachtes urbanes Quartier wieder und liegt der Stadt Wien zur Widmung vor

Idee eines Think-Tanks, Gemeinsam mit

unterschiedlichen Interessenten wurde die

Zukunft der Erdgeschoßzonen reflektiert.

Daraus hat sic boin Notawork kristallisiort

Ein Aktivitätenprogramm unterstützt die Schaffung von Urbanität durch Frequenz im Quartier.

Masterplan & EG Zone 2018



alkAndRollCities

e streets belong to people!

2017 - 2020 I Masterplan

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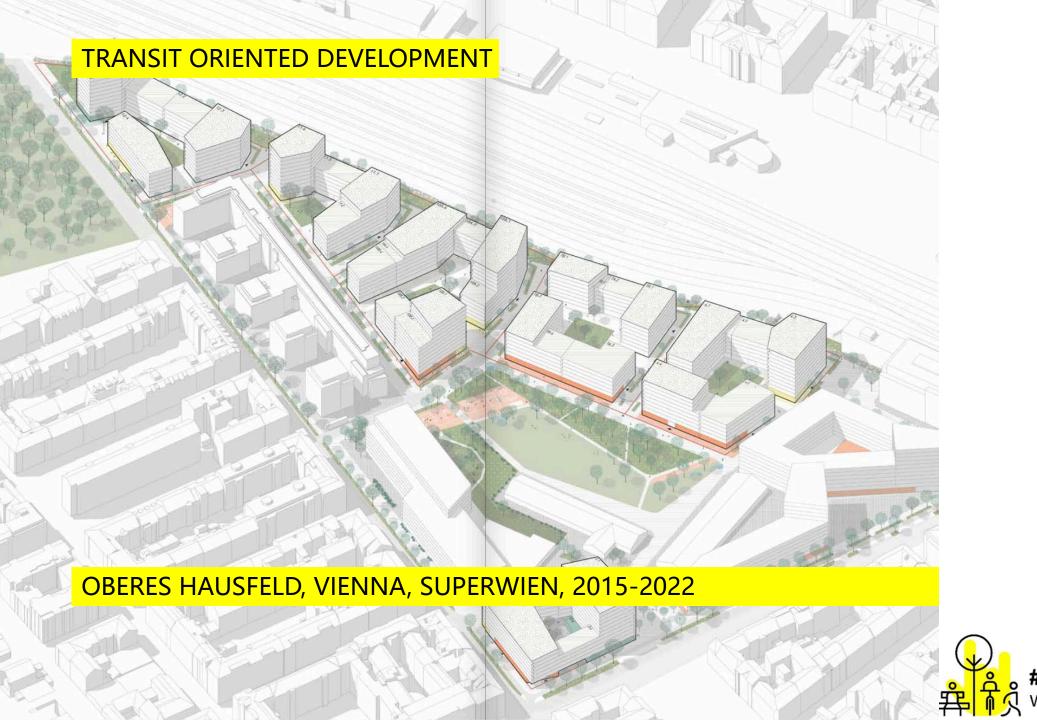












#WalkAndRollCities
Where streets belong to people!

Pushing cycling – Bici Bolzano













Pushing cycling – Bici Bolzano

Comprehensive approach to promote cycling!

- Cycling map with metro system
- Respective signposting
- Bicycle tracks
- Bicycle parking
- Bicycle infrastructure
- Bike Sharing
- Marketing

Source: https://www.eltis.org/sites/default/files/trainingmaterials/cycling_promotion_en.pdf





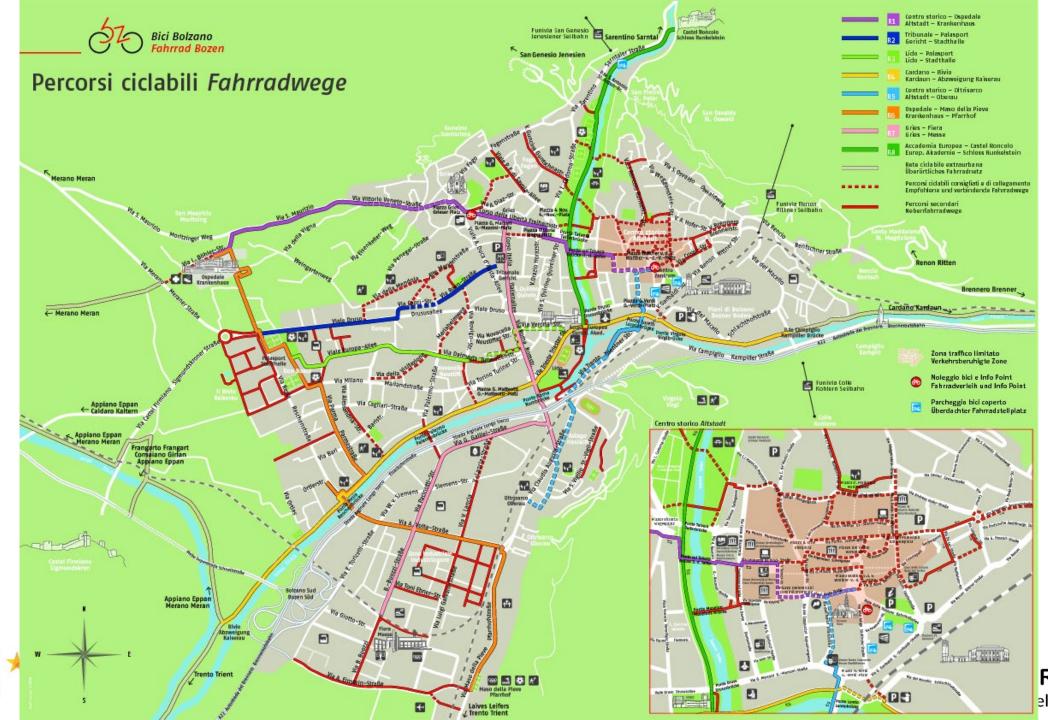












RollCities elong to people!

Percorsi ciclabili principali Fahrrad Hauptachsen





A BUREN





Leke





Bivio Trento/AppianoMerano

Abzweigung Trient/EppanHeran

Ponte Resia

Reschenbrücke

Centro storico - Oltrisarco Altstadt - Oberau Centro/Piazza Walther Zentrum/Waltherplatz Nuovo Teatro Comunale Neues Stadttheater Ponte Loreto Loreto Brücke Campo Sportivo Aslago Sportplatz Haslach Viale Roma Rom Straße 5 m E Oltrisarco Oberau 2.5 km







Noleggio Bici **Fahrradverleih**

Piazza Walther Walther Platz Plazza Gries Grieserplotz

Aperto tutti i giorni, tranne la domenica dalle ore 7.30 alle 19.30 (dal 1 aprile al 31 ottobre: in ottobre fino alle 18.30)

Täglich geöffnet von 7,30 bis 19,30 (vom 1. April bis zum 31. Oktober; im Oktober bis 18.30)

Numeri di telefono utili Nützliche Telefonnummern

Soccorso pubblico di emergenza Notruf 113

Vigili Urbani Stodtpolizei 0471 997 788

Tourist information 0471 307 000

Ferrovie dello Stato Staatsbahn 848 888 088

Trasporto pubblico locale Öffentlicher Notwerkehr 800 846 047







Impressem Öseinstitut Sietina Arto keige grafica-firbs nexios atampa, fotorita Longo maggio 2002

Europ. Akad. - Schloss Runkelstein Accademia Europea Europäische Akademie (O E

Ponte sul Talvera Brücke über die Talfer

→ ⊕ E

Campi Sportivi Talvera

Funivia San Genesio

Jenesiener Seilbahn

Castel Roncolo Schloss Runkelstein

Sarentino Sornthein 18,0 km 3.0 km





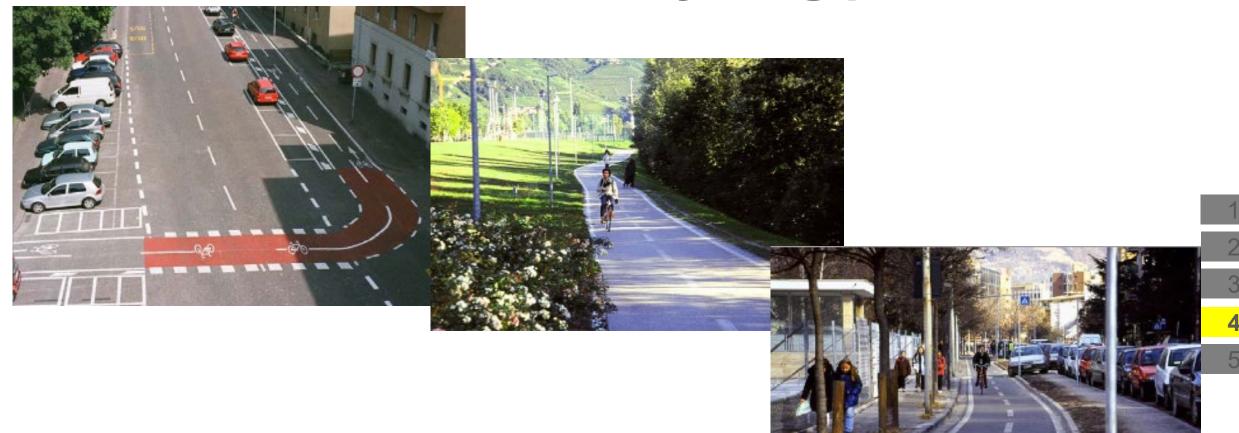






lollCities ong to people!

Bici Bolzano – cycling paths















ities







Cities people!

Mobility hubs and points

- Serve as a focal point of alternatives to classic modes and as a range extender to public transport.
- Include elements such as:
 - Cargo bike rentals
 - Bike-sharing, Car-Sharing, scooter-sharing
 - Service points with air pumps and repair gear
 - Bicycle and scooter parking
 - E-charging stations
- Work as service offers at public transport
 interchanges, smaller versions at PT stops and
 stand-alone solutions in e.g. residential areas













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The role of micromobility

Survey on E-scooters potential as first/last mile access to public transport stations in Munich:

- Compared coverage of public transport access by 5min of walking and 5 min of E-Scooter ride
- Analysis for
 - all high-frequency public transport stops (> 288 departures / day)
 AND
 - all high-frequency rail stations (metro and light rail)
- Result for a) are that 5 min walk covers 80% of population and b) that 5 min E-scooter ride covers 99% of population

Source: cities-multimodal: Planner's Guide to Sustainable Urban Mobility Planning











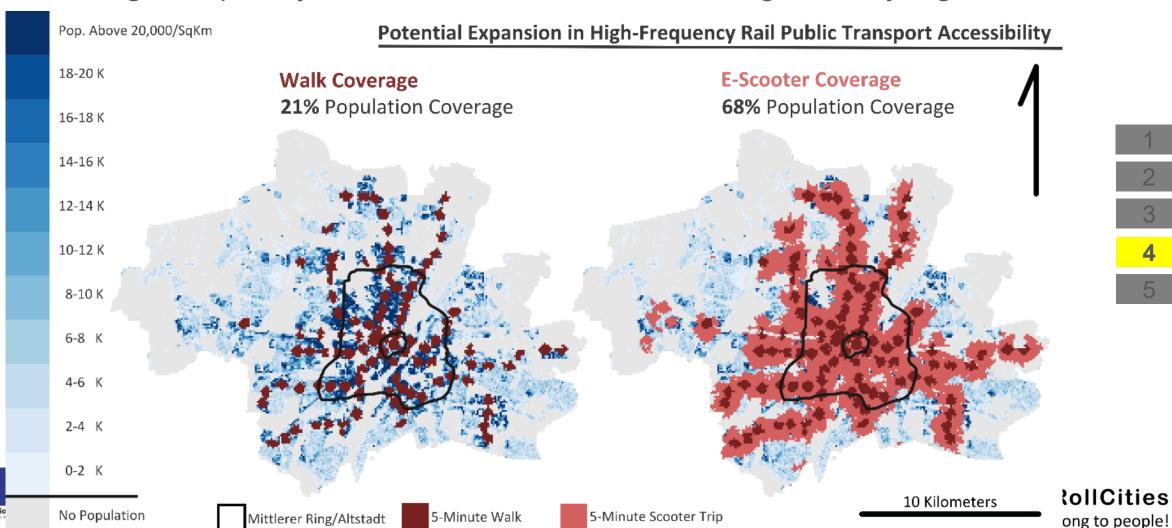
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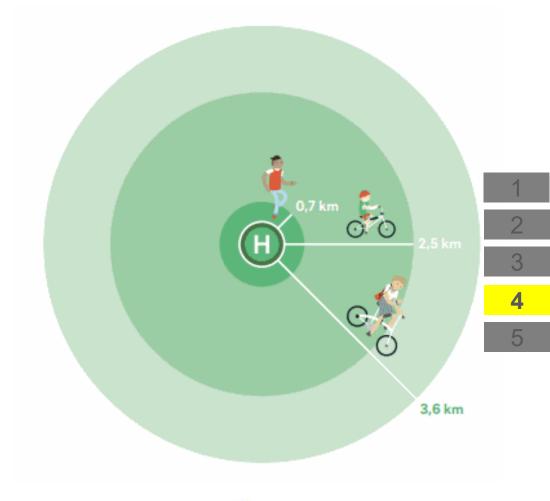
The role of micromobility

• For high-frequency rail stations, the difference is significantly higher:



The role of micromobility

- E-bikes and E-scooters can:
 - Substitute public transport where service are not sufficient
 - Extend public transport's catchment areas
- They replace however in most cases:
 - Public transport trips
 - Walking
 - Taxis or other ride-sharing services



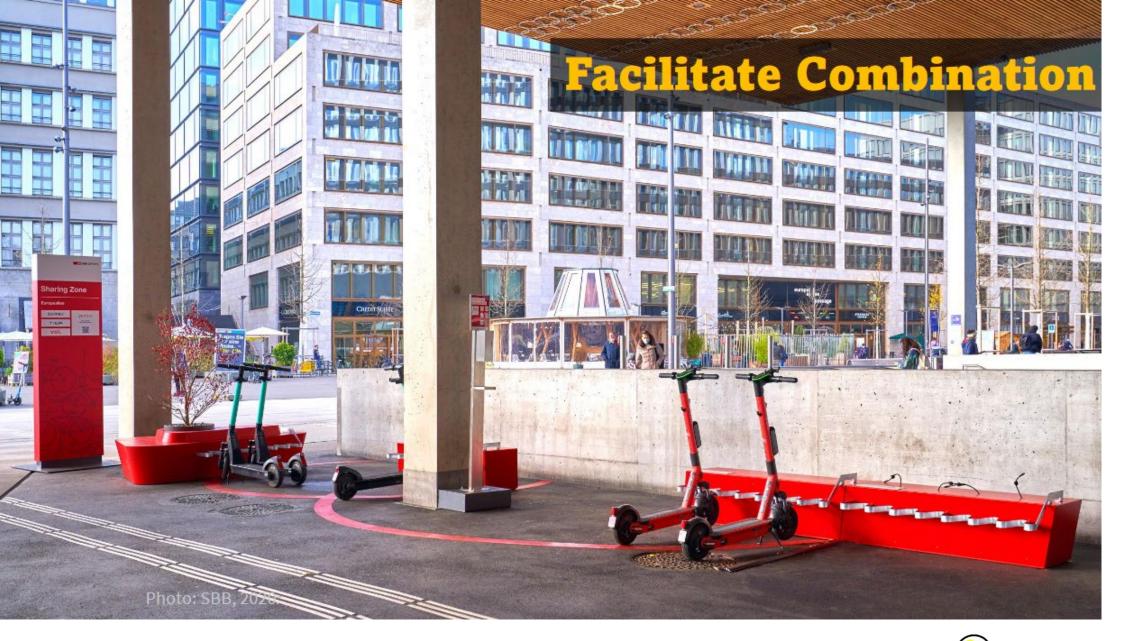
































Bike Helmet



Max. Speed







Ride with Traffic







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New challenges, new mobility actors, new dilemmas

- Customer needs and mobility patterns change due to teleworking, ecommerce, accelerated digitalization, increased attention to the 'local' (15minute city), safety concerns.
- New mobility players are coming in, and an innovative and dynamic ecosystem are built up, based on more electrified, shared technologies. All these need space and raise the challenge of how they can be connected.
- All this leads to the **scarcity of space**: how to better manage urban space and mobility services towards more sustainable cities. First question: is the space for parking, or a bus lane, or pedestrians...? Next questions: where to put the bike-share rack, the e-roller rack; to whom to give parking space: residents, long-term visitors, loading of goods? (Source: Tiago Lopes Farias)

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Source: Tiago Lopes Farias



Turku

Source: Tiago Farias

HOW can we make this happen?







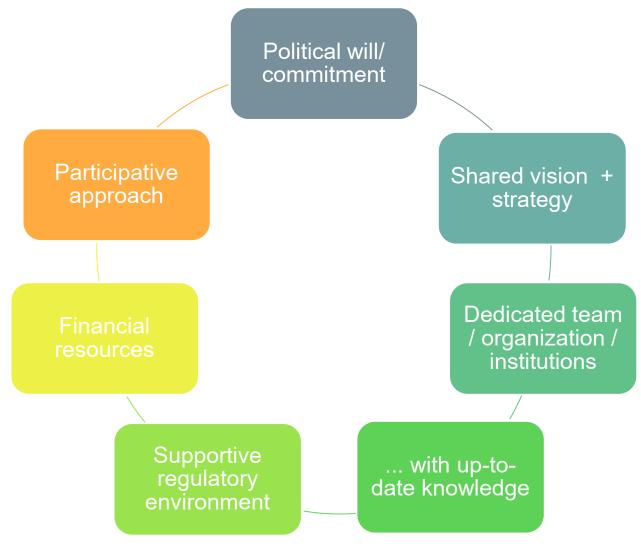






#WalkAndRollCitiesWhere streets belong to people!

You need good governance to implement



-











Further tips to implement the ,accessibility revolution

- Comprehensive mobility plans to integrate different forms of mobility, connecting to public transport, as backbone
- Metropolitan Transport Associations:
 - integrating different modes of transport,
 - using innovative financial techniques to discourage car use + reducing inequalities in mobility
- Encouraging bottom-up initiatives and experiments

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Summary: an accessibility revolution

- WHAT: connect changes in the use of public space and mobility innovations to each other. Public space interventions can push for the mobility change, and vica versa.
- HOW: involve schools/children, connect other positive aspects, eg greening as incentive. Testing and experimenting are important means to convince people. Concentrate on supporters instead of dealing with all protesters in details.
- MAKE PERMANENT: convince politicians, create institution, use the EU money (New Green Deal, RRF). Co-creation and innovative planning can lead to regulatory and institutional changes on the level of the whole urban area, connecting the scales from metropolitan down to neighbourhood and street level.



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THANK YOU FOR YOUR ATTENTION!

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