



Bicycle Infrastructure A new way of doing urban planning

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3rd Bicycle Congress, Lleida, April 2010

Deutsches Institut für Urbanistik



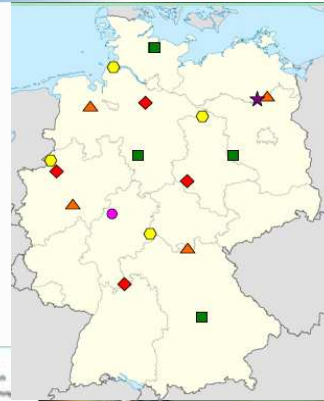
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“The European City”
- 2 Changing the Mental Map
in Everyday Mobility
- 3 Public Space – Separation
or Integration of the Modes?

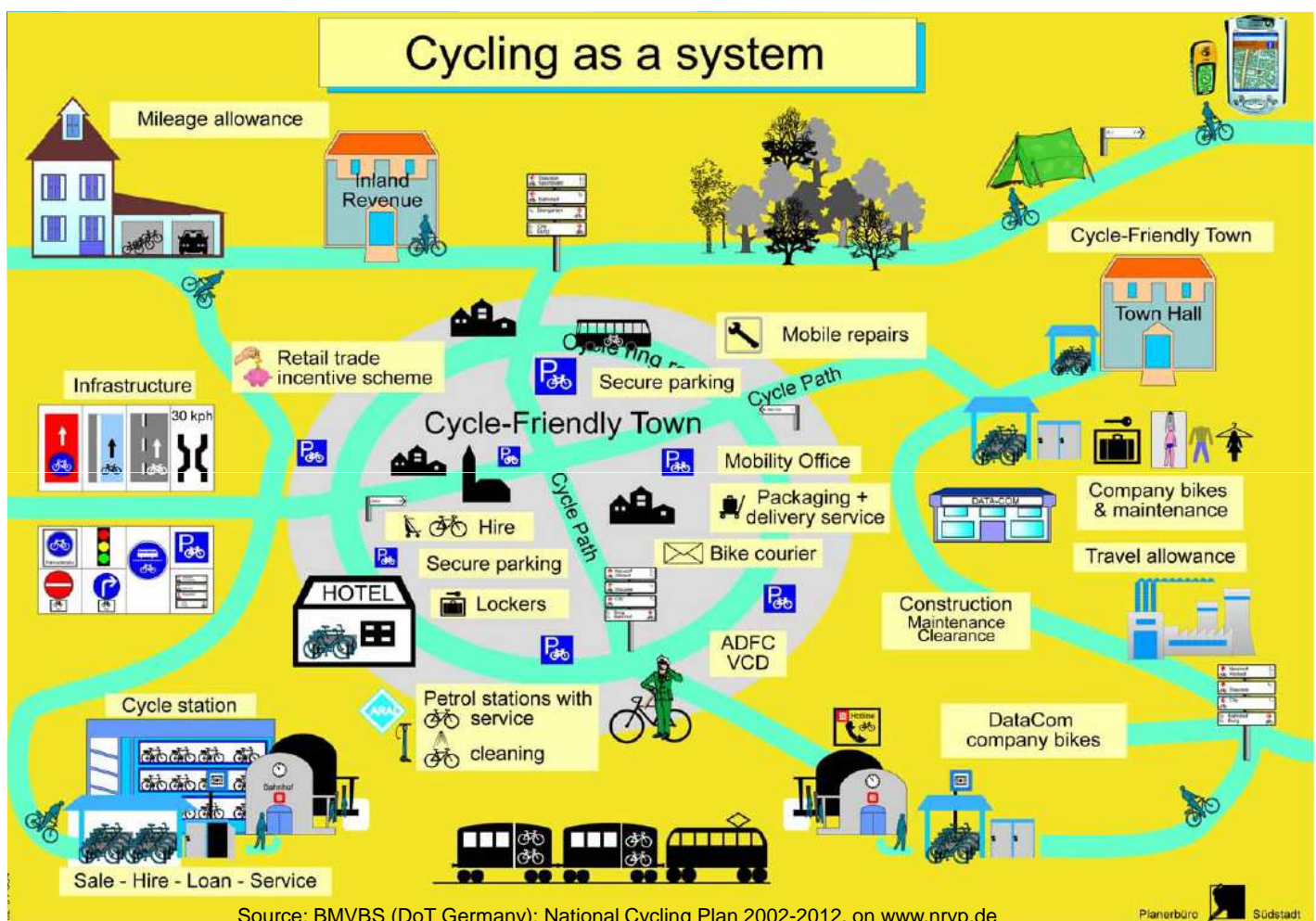
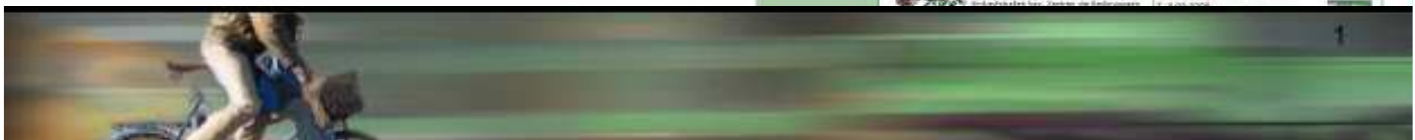


Difu providing a Clearing House of the national cycling plan 2002-2012

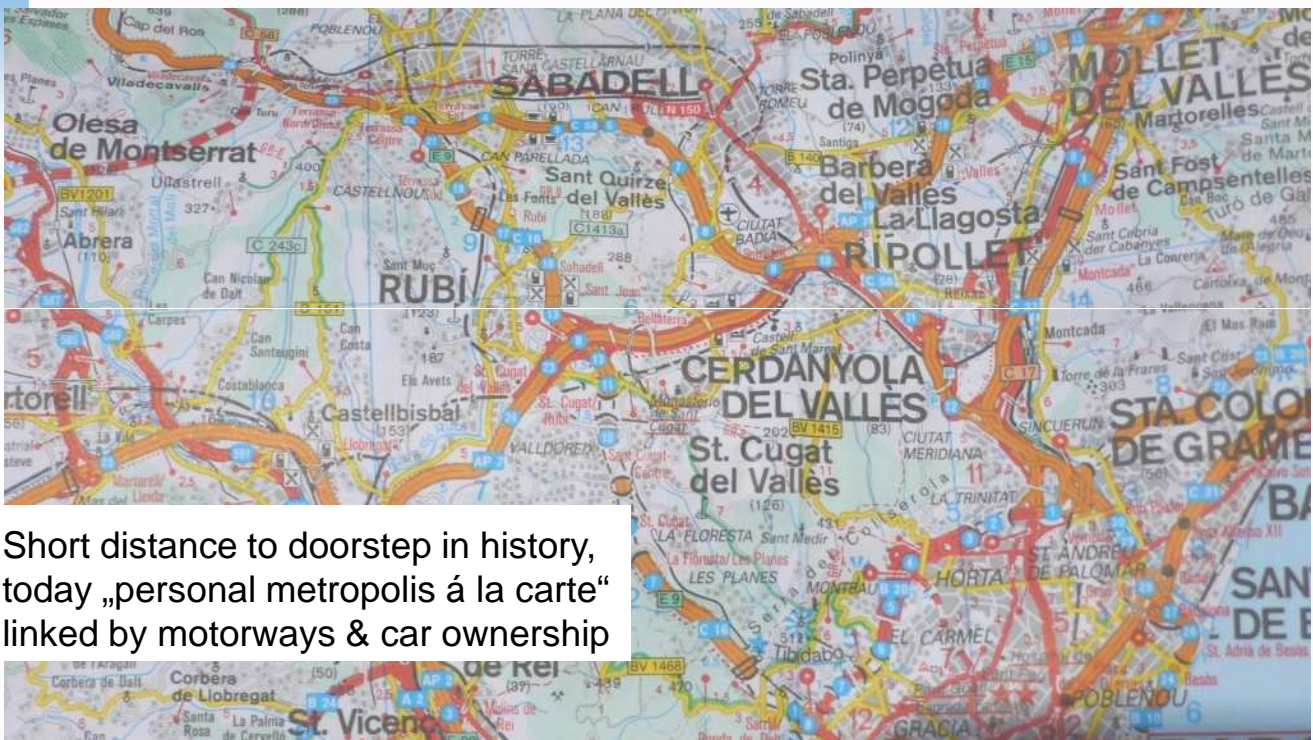
- www.nrvp.de **national website** on cycling (4000 files)
- **Bicycle Academy**, more than 100 regional training seminars since 2007 (after parliament report addressed lacking knowledge a main obstacle in cycling policy)
- Annual Municipal **Bicycle Conference**
- Assistance for 9 projects on **Bike Sharing & Public Transport**



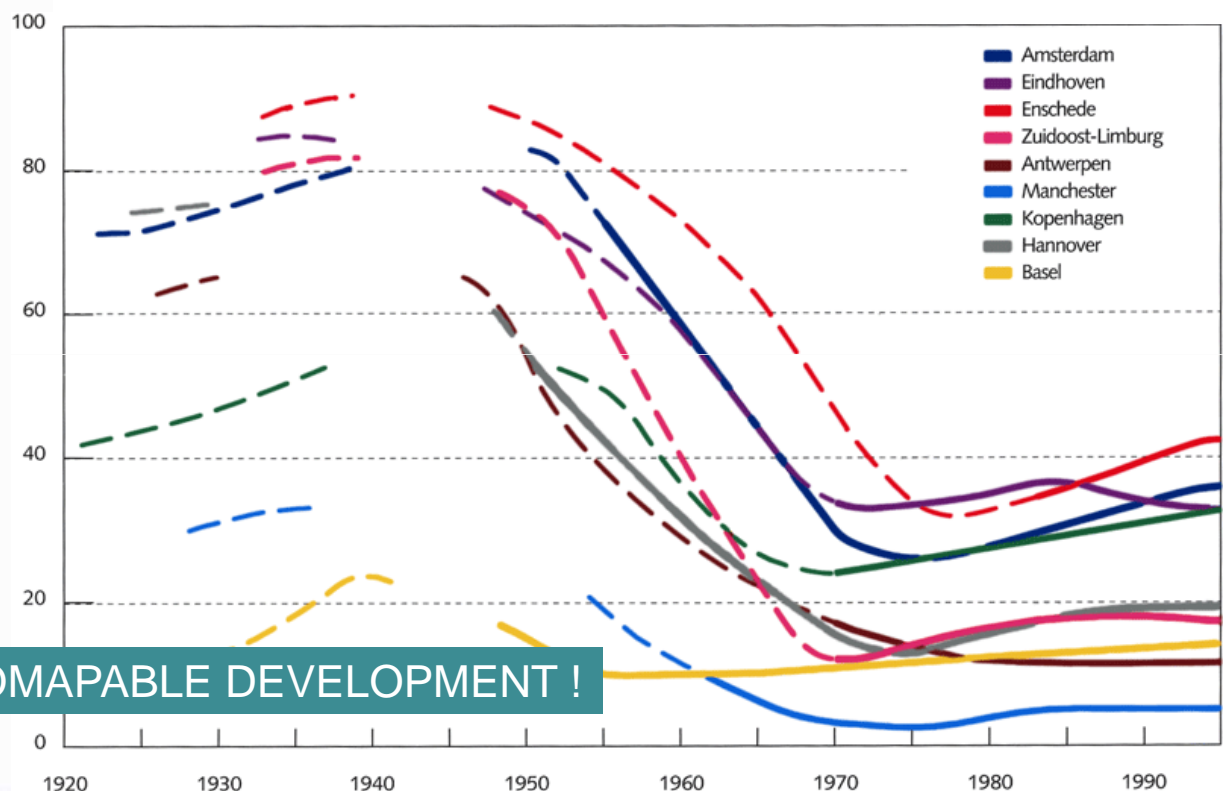
Since 1973.
Founded by
the German
municipalities



The matter: growth of distances travelled



Some statistics first: Bicycle share in vehicle traffic in selected European cities



COMAPABLE DEVELOPMENT !

Some statistics first: transport modal split entire Germany 1976 – 2008 (until 1990: Western Germany only)



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Some statistics first (entire Germany)

From 2002 to 2008:

Walking 23% to 24%

Cycling 9% to 10%

Total number of trips:

- Cycling +17%
- walking + 8%
- public transport +4%
- car, driving +/-0%
- car, passenger -5%



Zero emission campaign: „turn brain on, engine off“

„tsk, tsk – to organic food shop by car!“



„Urgent need for filling station.“



„Burn calories, not oil“



Kopf an: Motor aus. Für null CO2 auf Kurzstrecken.

„The short trip driving school“

Source: Zero Emission Mobility 2009

Change of mental map - temporarily car-free zones

A Tradition in the Mediterranean
afternoon promenade (Italy: „giro“)

During various local festivals (Marathons)!

Childrens playzones (several residential
streets each one
afternoon per week)

Urbanists' issue: congress,
SRL urban planning
award „mobility in quarters“

**European Culture Capital
2010, Essen / Ruhrgebiet:**

18 July 2010:

**Central motorway for 5 mio
inhabitants – carfree 50 km**



Source: Kulturhauptstadt Ruhr, 2009

Urban development policy and future society

- **Growing grey** – more elderly to keep their own households
- **Becoming fewer** – infrastructure more expensive per capita
- **But more colourful** – diversity of lifestyles and cultures to be managed
- *potentially less wealthy in the long run??*



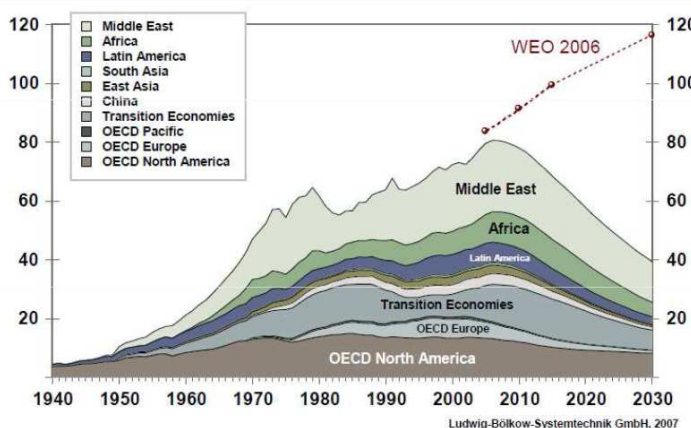
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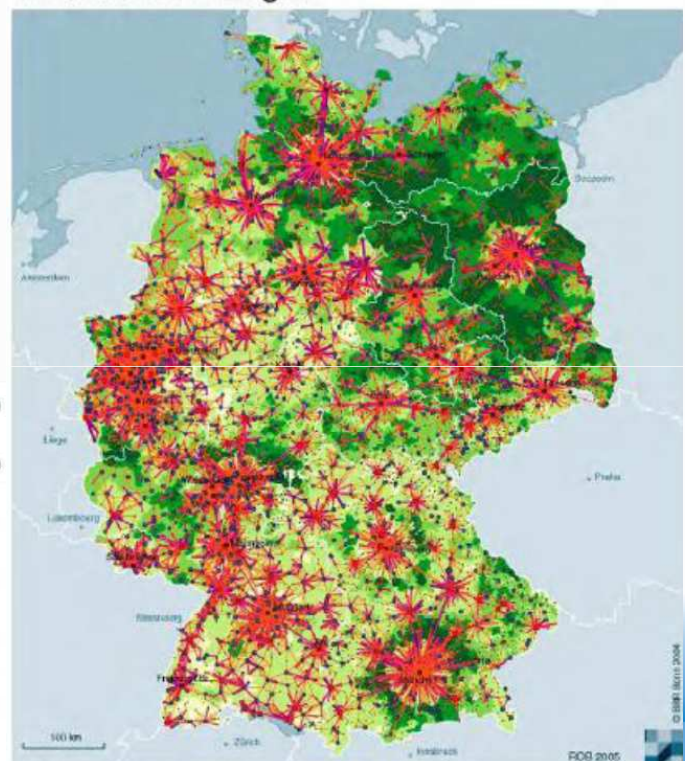
Post-fossile mobility

Future problem regions after „peak oil“ (value of estates)!

- >> more awareness in train system accessibility in rurals
- >> ideas to promote pedelecs & fast cycle routes for commuting



Pendlerverflechtungen



Electric propelled cars a long story ...

EU & nat. gov. going to make it a big subsidy programme



New electric motor bikes in China: 2 mio / p.a.



„Leipzig Charta“ of the EU Ministers for Urban Development / Housing / Infrastructure (2007)

Integration of urban development and urban transport policy (§44, 46)

- Accessibility a right of the people
- Deprived neighbourhoods in focus
- Public transport at affordable price
- Networks for walking and cycling



„THE EUROPEAN CITY“

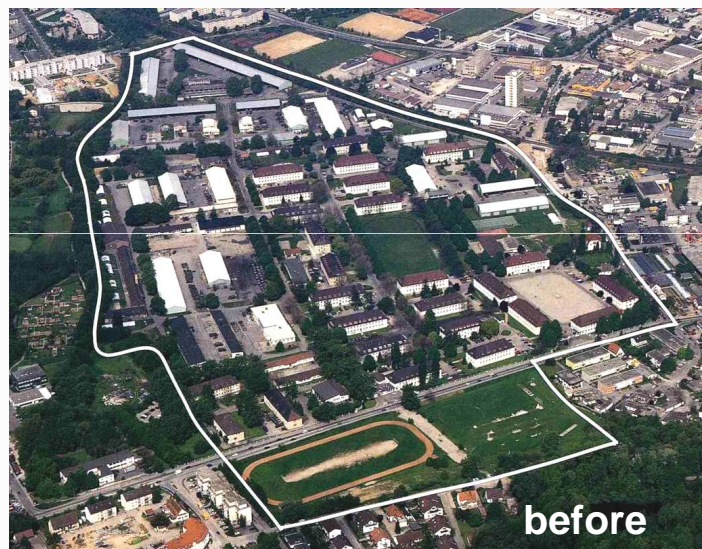
- Dense
- Mixed use
- High quality public spaces

... becoming a term of political struggle

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Freiburg, „Vauban neighbourhood“

- Re-cycling of land-use: former military barracks



Freiburg, „Vauban neighbourhood“

- Re-cycling of land-use: former military barracks
- Area in cycling distance to city center:
 - >> dense
 - >> mixed use
 - >> quality green spaces
- End of tramline extension

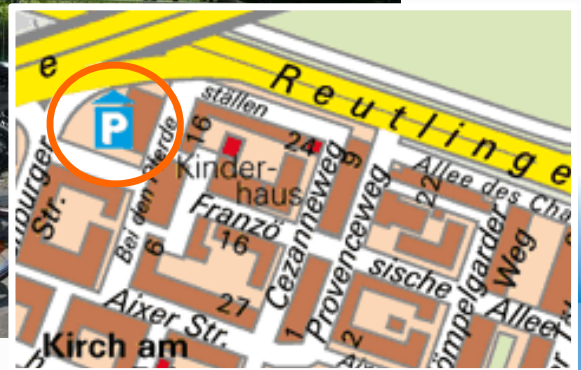


Freiburg, „Vauban“

- Re-cycling of land-use: former military barracks
- Area in cycling distance to city center:
 - >> dense
 - >> mixed use
 - >> quality green spaces
- End of tramline extension
- Natural water regime
- High „solar standards“
- **Parking concentrated outside in two garages**



Implementation in Tübingen „French Quarter“ and „Loretto Quarter“



Implementation in Tübingen

more density in
suburbs at new
local railway stops



„Tübingen macht blau“ (switches into blue): -10% CO2 until 2010

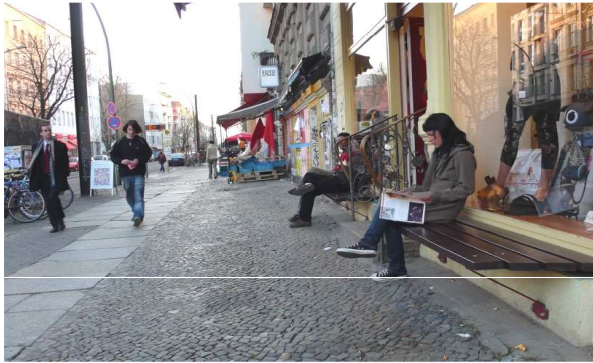
- Dense car-sharing in public space
- More dense stops for urban busses
- Cycling map, bike-sharing
- Training courses on eco-driving
- Pedelects for municipality admin.



For hot days – the north learning from the south



Pedestrian mobility needs non-mobility



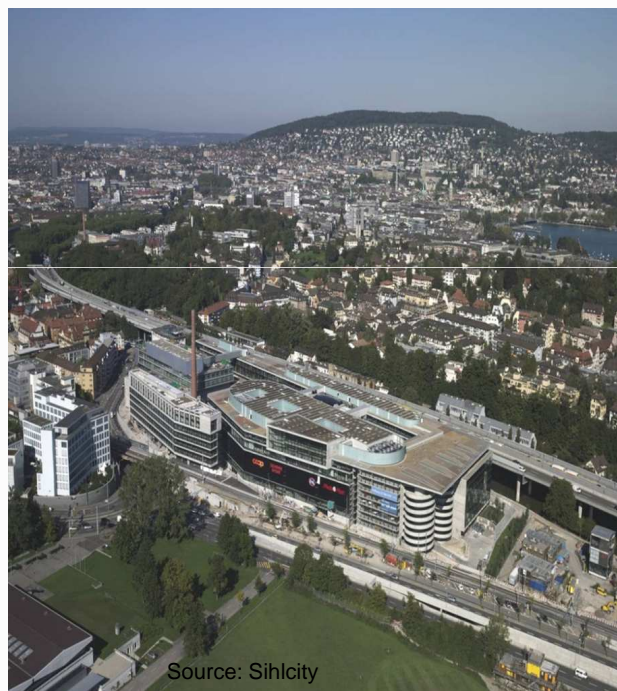
Traffic effects of a shopping mall, Sihlcity, Zürich

.... minimized by

- innovative building permit / reduced parking (trip contingent),
- brilliant mobility management (home delivery)

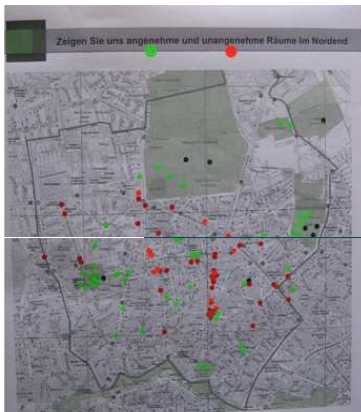
Compared to another Zürich mall

- same economic success
- car only 35% instead of 80% modal share



Source: Sihlcity

„Point us your opinion on our city centre!“



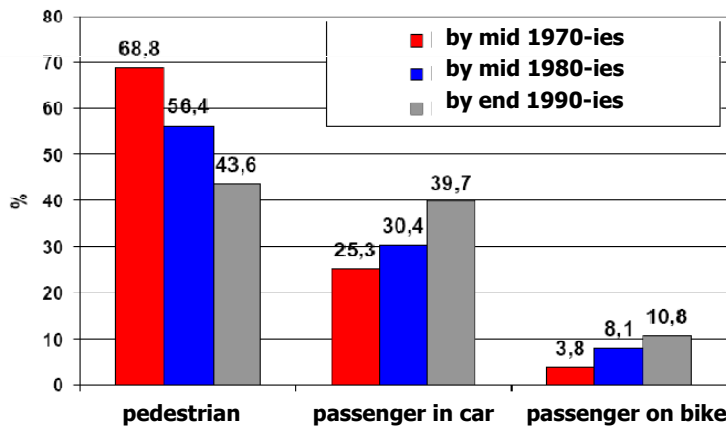
Cycling to shops – technology & fashion, campaign with bicycle shopkeepers (>> pedestrian?)



Trust of the Parents into the Public Space?



Travel modes of children on the way to kindergarten in (Western) Germany



Source: Walter Funk 2008, (Uni Erlangen-Nürnberg)

Transport system's effects on the children:

- more at home
- more with media
- more guarded in institutions
- own spaces become isolated

Substitutes for Mama Taxi

- accompanied and autonomously!
- cycling also a school activity
- car drivers' education
- traffic restrictions in school area (speed, access by car)



Physical barriers to get the bicycle to the street

- Only the landlords' responsibility?
- Obligatory in local / national building legislation?



Public Neighbourhood Bicycle Garages

- In public interest in public space
- Role of municipal parking companies (Utrecht, NL)
- Building legislation?



Keeping the New Users by Infrastructure Changes

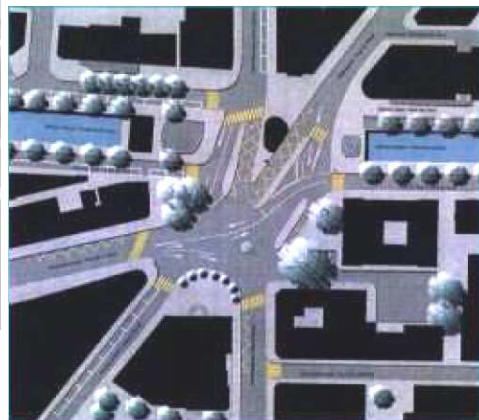
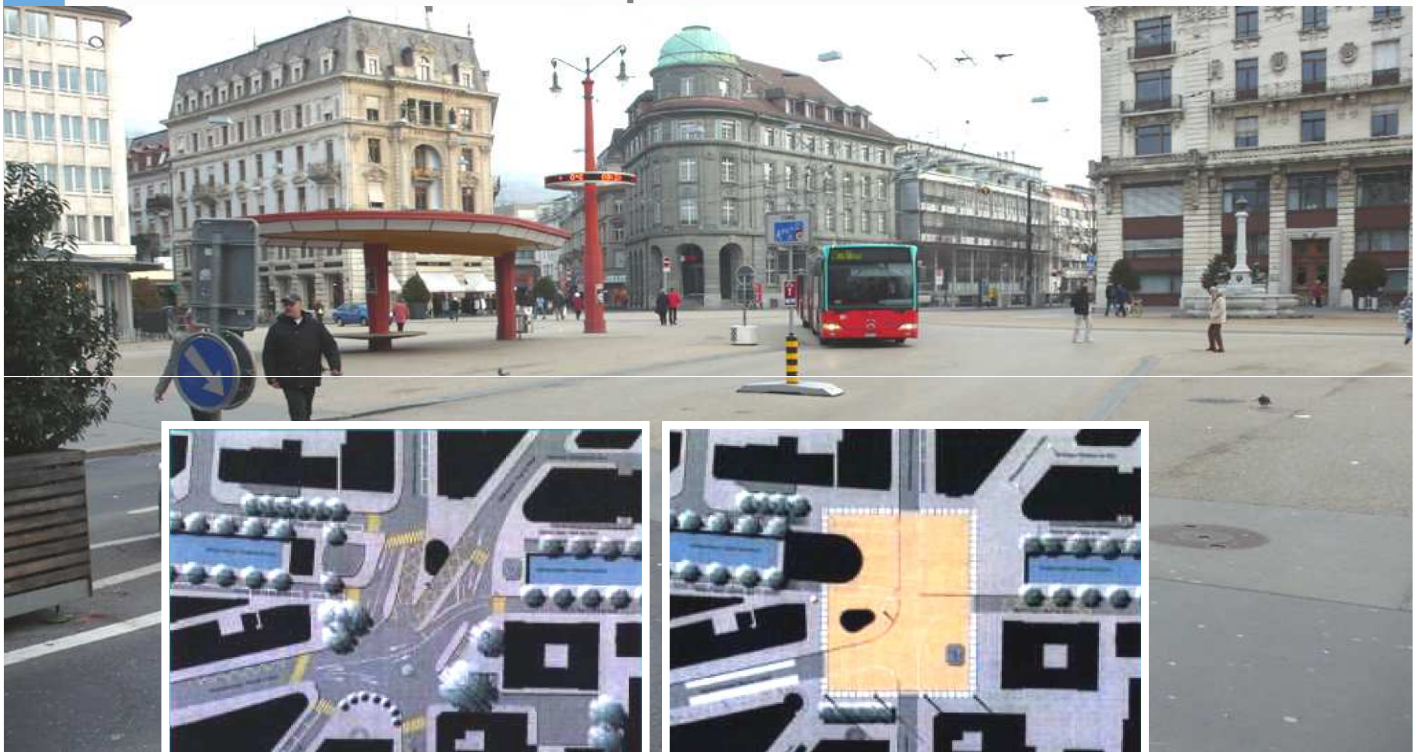
- NOT NECESSARILY CYCLE PATHS
- Quick and easy travel on bike lanes, cheaper than build cycle paths
- Adequate space at intersections
- Self-explanatory design
- Enforcement, no parking on it



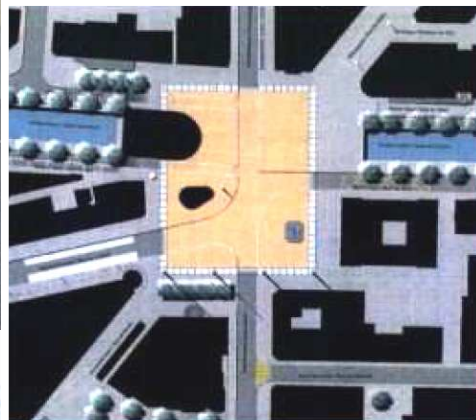
New integrated street design



Biel / Bienne: Central square

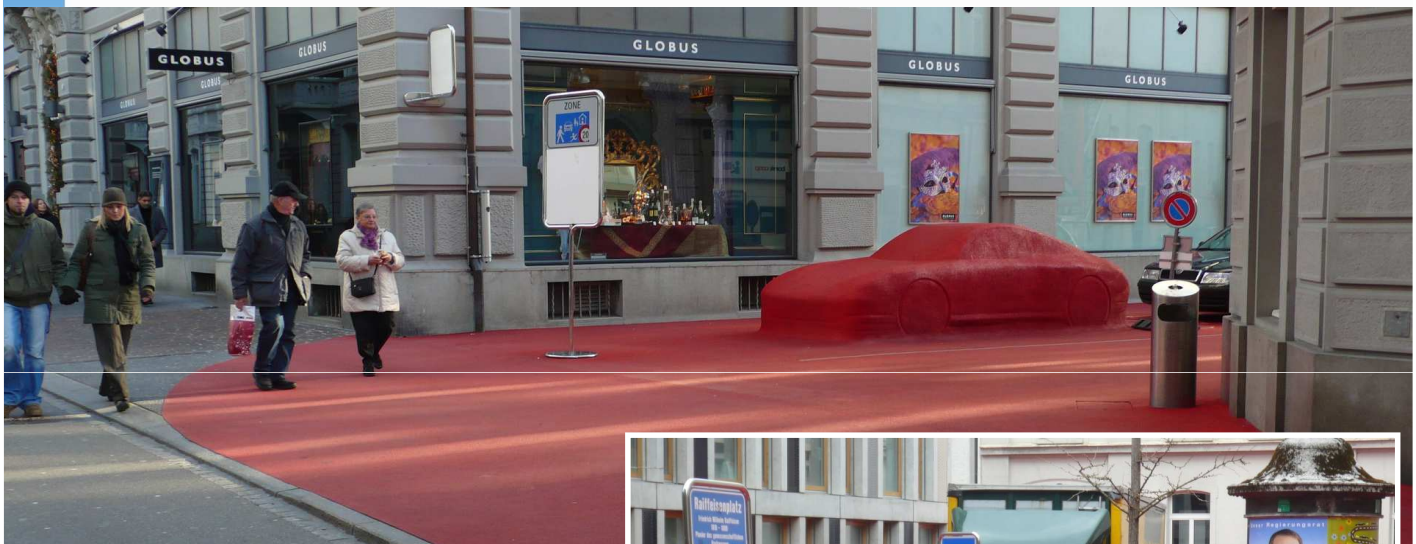


1995



2002

Regeneration of commercial quarter (banks), St. Gallen CH

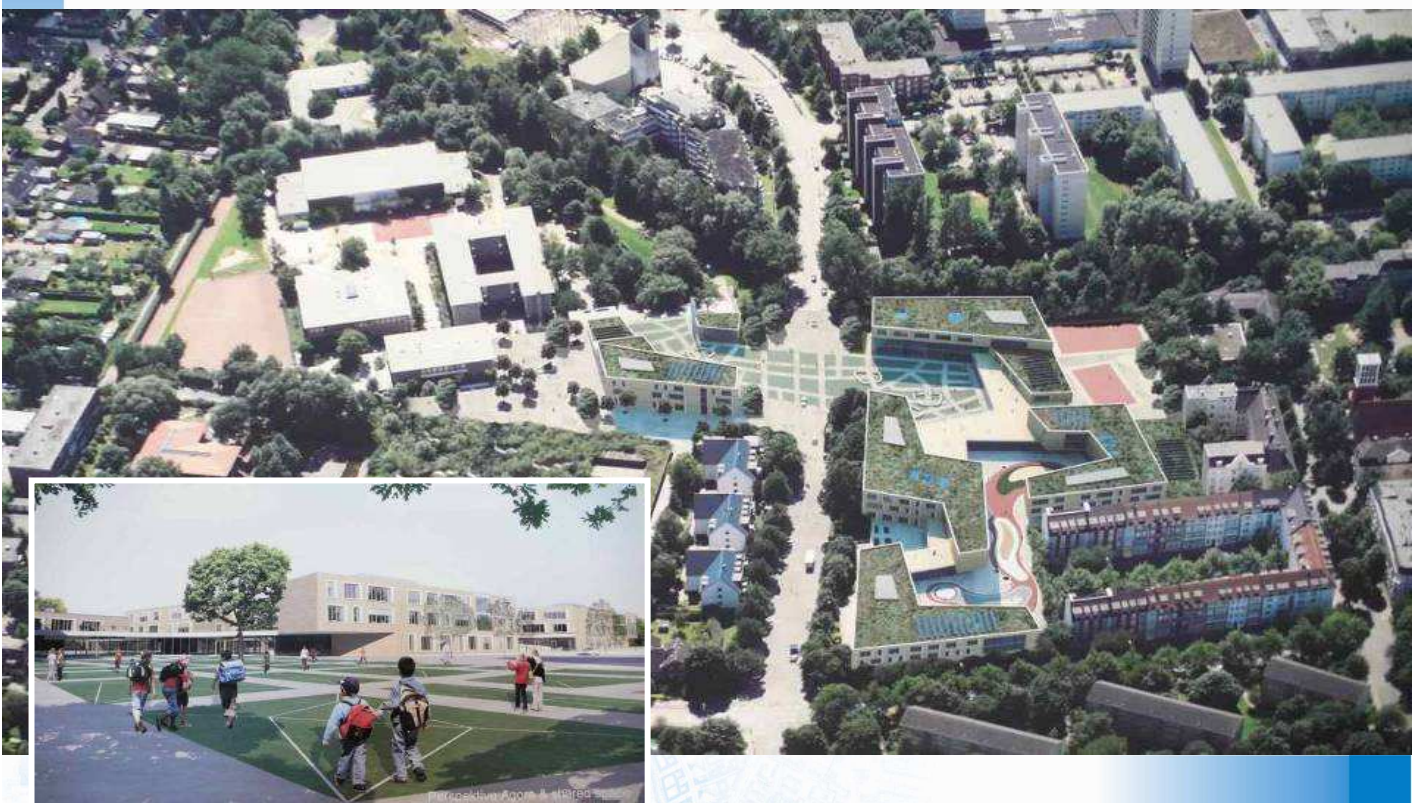


New integrated street design

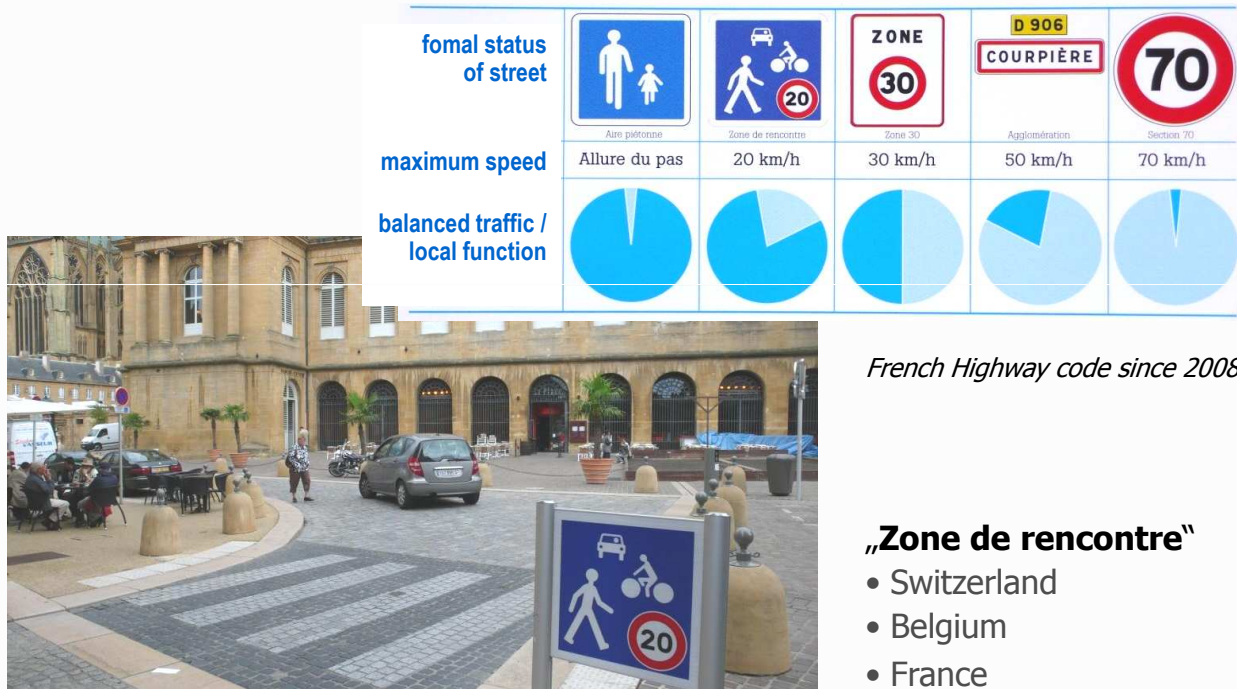
no parking in the square,
reserved pedestrian space



School Yard („Agora“) on the road: 2013 Urbanist Expo Hamburg



Freedom of walking: new integrated street design



„Shared Space“ from EU project in North Sea region

.... Standardized road design / centralized behaviour for sake of fast driving: traffic lights, barriers, horizontal markings, regulation...
 = Requirement of the machine

.... „cleaned-up“ spaces for intuitive moving at low driven speed,
 = Interaction of the humans

COMMONSENSE A NEGLECTED RESOURCE IN PLANNING?



Source: Hamilton-Baillie

Optimum freedom of moving. All motorists at cyclist speed



Thank you
for your attention.

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