

Bicycle and Public Transport – Dream Team or Rivals? The Berlin Experience

Conference „Integrated Urban Mobility“

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Overview

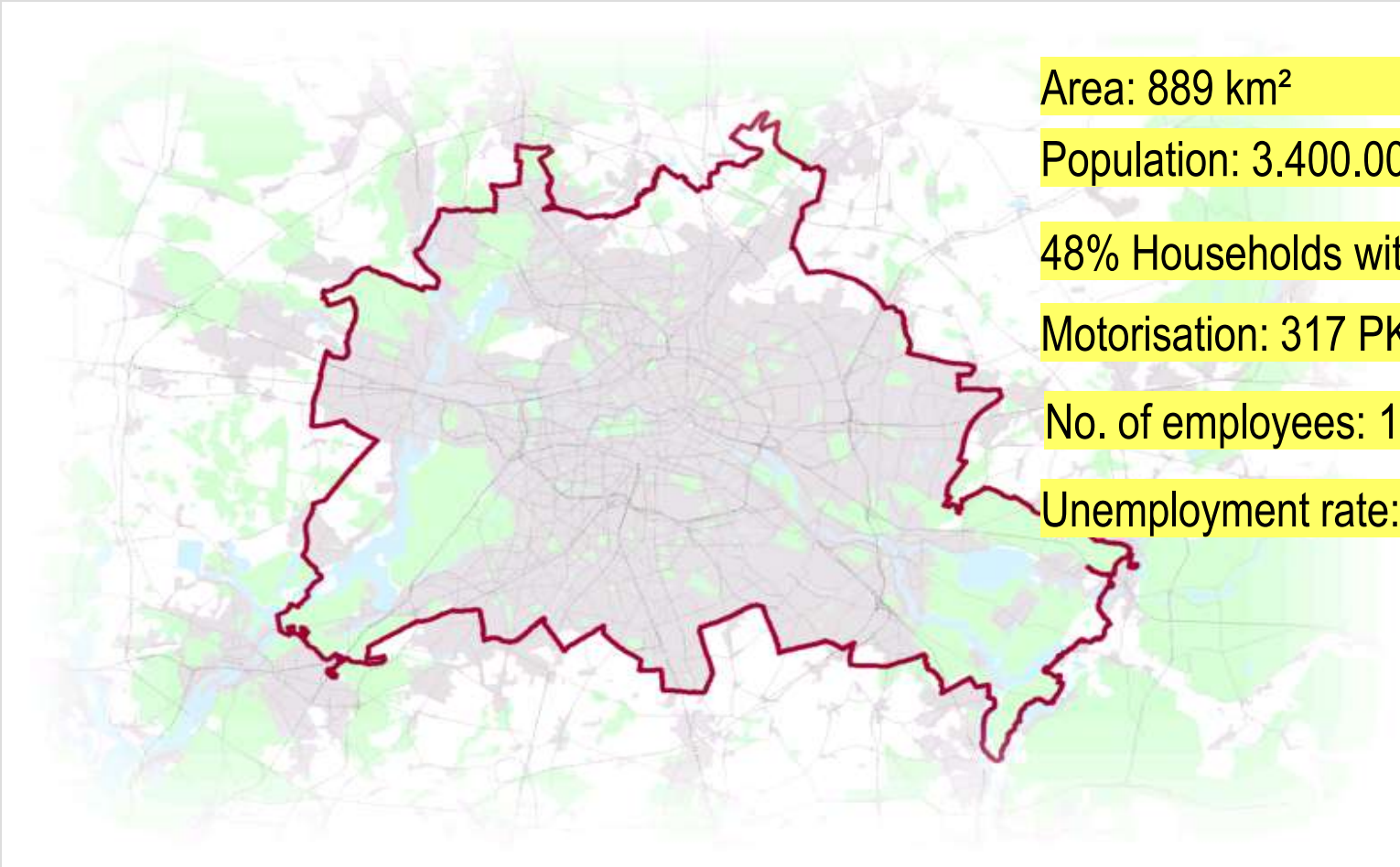
- Bicycles and Public Transport in Berlin's Transport Policy
 - Berlin is Different...
 - Facts and Figures about Transport in Berlin
 - Master Plans (Integrated Transport Plan, Public Transport Plan, Bicycle Strategy)
- Integrating Bicycle and Public Transport in Berlin
 - Recent Measures: Successes and Challenges
 - ... e.g. On-board carriage of bicycles
 - ... e.g. Bike & Ride
 - ... e.g. Bikes on Bus Lanes
 - Preliminary Findings and Outlook :
 - Rivals or Dream Team?
 - The Transport Companies Point of View
 - New Measures: Public Rented Bikes etc.
- General Conclusions

Hypotheses

- Municipal transport policy facing major challenges
 - limited financial resources,
 - growing requirements regarding air quality and noise protection,
 - need to act as regards climate protection
- Special role of public transport and bicycles for safeguarding people's mobility in an environmentally friendly way
- Planning for cycling and public transport ...
 - has to take into account changing framework conditions
 - achieving best possible results for improving environmentally friendly mobility
- ... means:
 - examining strengths and weaknesses of both modes impartially,
 - examining them in an integrated manner,
 - paying attention to increasingly loose attachments to individual transport modes (not only in Berlin), and
 - thoroughly assessing cost and benefits of individual measures.

Bicycles and Public Transport in Berlin's Transport Policy

Berlin is different...



Area: 889 km²

Population: 3.400.000

48% Households without a car

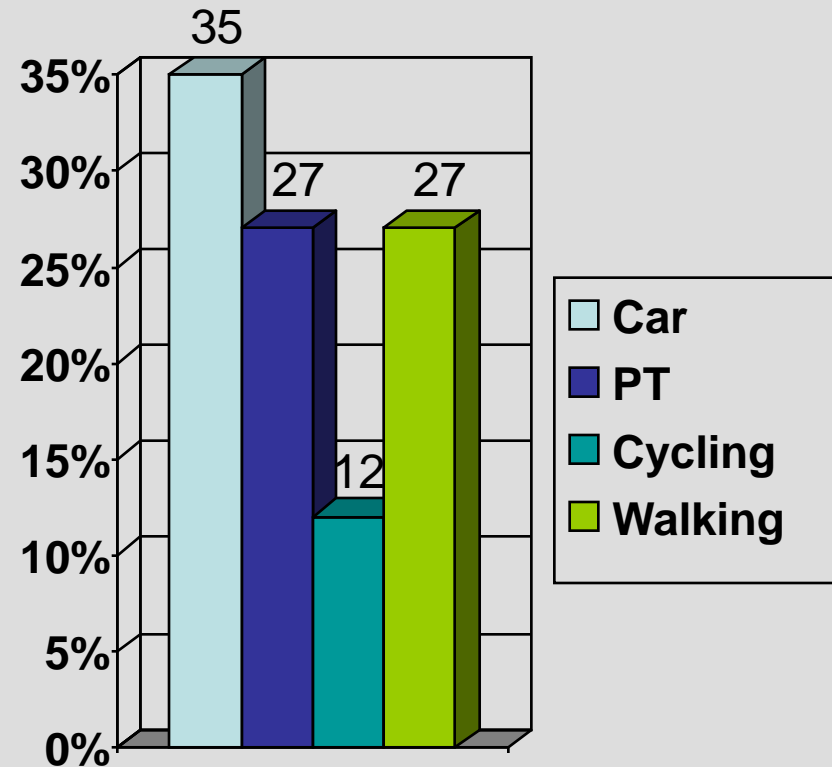
Motorisation: 317 PKW/1.000 EW

No. of employees: 1.350.000

Unemployment rate: 15,5% (2007)

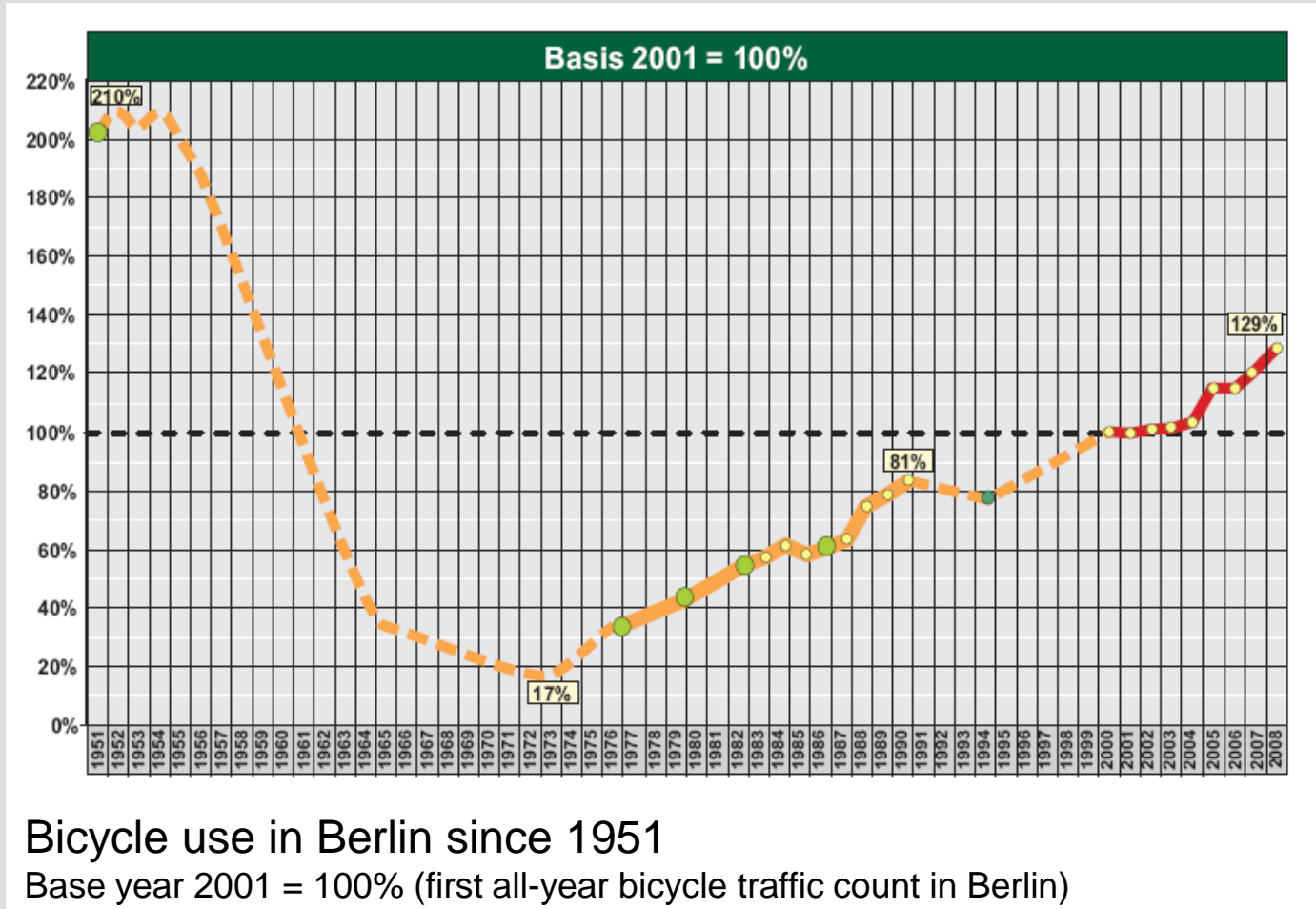
Facts and Figures about Transport in Berlin

- Slight decrease in car use
- Stagnating public transport
- Notable increase in bicycle use (+ 50% since 1998)
- Trend: generally decreasing transport volumes
- Increasing shares of multimodal mobility (no strong attachment to individual modes)
- Increasing relevance of integrating bicycles and public transport



Modal split in Berlin 2005

Facts and Figures about Transport in Berlin



Integrated Transport Plan (StEP Verkehr)

- Comprehensive integrated planning approach for transport development in Berlin (adopted by the Senate in July 2003)
- Linking transport with objectives regarding urban development, environment, energy, climate protection etc.
- Ambitions aims to increase modal shares of public transport and bicycle use in order to reduce car usage
- Wide-ranging catalogue of measures to improve both modes (infrastructure, communication etc.)
- First approaches for integrated consideration of both modes together with respective measures
- Currently being updated (including new thematic focus inter-/multimodal transport behaviour)

Berlin Bicycle Strategy

- Complementary strategy to the StEP Verkehr (adopted by the Senate in November 2004)
 - Objective: Increasing bicycle use
 - Developed in co-operation with advisory board „FahrRat“ under involvement of transport companies
- Specification of the StEP Verkehr
 - Goals, areas of action, measures,
 - Implementation / financing
- Particular focus on interlinking bicycle and public transport (measures and objectives)
- Implementation critically accompanied by the “FahrRat”
- Update currently in preparation

Local Public Transport Plan (NVP)

- Berlin's Public Transport Law (ÖPNV-G) requires sufficient provisions for bicycle parking and taking bikes on trains
- Current Local Transport Plan (2006-2009)
 - Specifies ÖPNV-G through a catalogue of measures based on an assessment of costumers' interests, public interests and economic efficiency
 - Concludes that use of bicycle carries “more opportunities than risks”, especially because it improves the competitive position against the car as regards door-to-door travel times
 - Names rivalry situation of bikes and public transport on short distances as a problem
- In the current process of updating the NVP (period 2010-2014) an intensive discussion of the subject has already emerged

Integrating Bicycle and Public Transport in Berlin

Example 1: On-board carriage of bicycles

- Carrying bikes on trains permitted all-day without exception times as well as in night buses replacing U-Bahn services (sufficient space depending)
- Priority given to prams and wheelchairs
- Fares for bicycles according to joint tariff for Berlin-Brandenburg set by the Verkehrsverbund Berlin-Brandenburg (VBB):
 - Single ticket Berlin area (AB): 1.50 €
 - Short Trip Ticket: 1.00 €
 - Daily Pass: 4.40 €
 - Monthly Pass: 8.50 €



Example 1: On-board carriage of bicycles

S-Bahn

- About 60.000 bicycles /day (summer) = 4-5% of costumers
- Growth tendency in 2008
- Punctual capacities constraints, but only few complaints
- Modification of multipurpose compartments in model range BR 481 (following a pilot scheme and costumer survey)



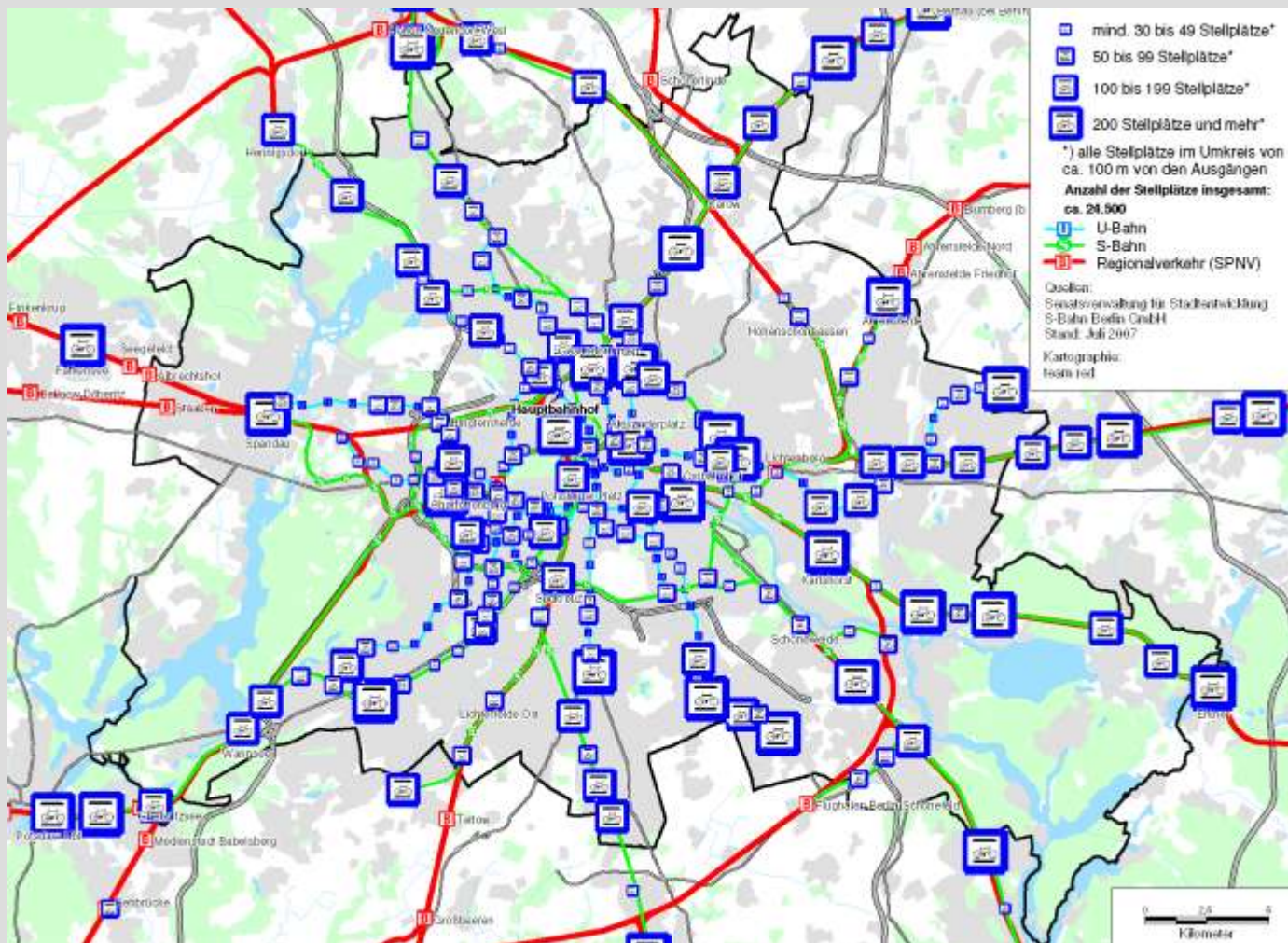
Example 1: On-board carriage of bicycles

BVG:

- No up-to-date data available, however utilisation clearly below S-Bahn (because of access problems, less attractive for long-distance trips etc.)
- No known capacity constraints
- Vehicle procurement considers bicycle carrying (e.g. new tram „Fexity“)



Example 2: Bike & Ride



B+R at S-, U- and Regional Train Stations

The Berlin Example: Integration of Bicycles and Public Transport

Example 2: Bike & Ride

S-Bahn:

- About 20,000 B+R bike parking facilities at 166 stations (out of which) 7,200 built by S-Bahn itself
- Not sufficient for increasing demand (if share of bicycle use on accession routes reaches 5% about 60,000 new parking stands will be needed)
- High qualitative standards for new parking lots (leaning racks, roofs)



Example 2: Bike & Ride

BVG:

- About 7,000 leaning racks and 1,700 front-wheel stands at U-Bahn stations
- Located nearly exclusively on public road space, only few sheltered
- Further 3,000 racks near U-Bahn, Tram and Express Bus Stops envisaged (partly sheltered)
- Project implementation in co-operation with local districts



Example 3: Bicycles on Bus Lanes

- Present Situation:
 - 100 km bus lanes, nearly all of them open for bicycle use since 1997
 - Norm for width of lanes co-used by bicycles (4.75 m) only rarely met, in parts width below 3.50 m
 - Increasing numbers of cyclists using the lanes (in cases, e.g. Kurfürstendamm, Unter den Linden, several thousands of cyclists/day)
- Point of view of the BVG (transport company in charge of buses):
 - Problems caused by insufficient width of lanes (no compliance with required safety distance for overtaking; without overtaking lengthening of travel times)
 - Increase in obstructions during arrival/departure at bus stops
 - Requesting separate cycling lanes when bus lane width falls short for combined use
- Currently detailed assessment in research project
“Interdependencies bicycle/public transport”

Example 3: Bicycles on Bus Lanes



The **Berlin Example: Integration of Bicycles and Public Transport**

Rivalry...

- Bicycle and public transport predominantly compete on short-distances and accession routes to U- and S-Bahn stations, thus, it mainly affects BVG-bus services on respective routes
- Increases in bicycle use partly take place at the expense of capacity utilisation on these bus routes
- Empirical evidence for reliable assessment not yet sufficient
- The current process of updating the NVP 2010-2014 will investigate the problem more thoroughly
- Further competition as regards use of transport space:
 - Traffic space, e.g. combined use of bus lanes
 - Transport organisation, e.g. timely processing of pedestrian and bicycle movements vs. acceleration of public transport

... and Mutual Benefits

- Cyclists are often multimodal; to a certain extent they use public transport not only combined with but also as an alternative to the bicycle, and they often do not own or want a car
- The combination of bicycle and public transport attains door-to-door travel times equal to those of the car on many routes – a contribution to increasing the competitive position of the public transport.
- Loss of passengers because of bicycle competition are – according to first insights – marginal compared to total number of public transport users.
- Investments in e.g. sufficient and high-quality B+R facilities as well as a more intensive communication of the advantages of combined bicycle – public transport use, therefore, generate a plus in passengers for public transport

View of Transport Companies

S-Bahn:

- ...actively emphasises that cycling and public transport „benefit from each other“ and, therefore, they should be considered jointly by transport policy
- ... engages in public relations promoting the combined use of bicycles and S-Bahn
- ...assigns a high relevance to linking bikes/S-Bahn in current considerations regarding gaining market shares from the car
- ...is offering its ticket subscribers to purchase a flatrate (50 € per annum), allowing them to use the “Call a bike” bicycles of the DB Rent GmbH for a one-year duration
- ...has been granted the “FahrradStadtBerlin” award of the Senate in 2008.

View of Transport Companies

BVG:

- ... also acknowledges overall benefits of combined bicycle and public transport use („partner in the environmental alliance”) despite more pronounced rivalry situation compared to the S-Bahn,
- ... actively partakes in further extending Bike&Ride,
- ... contributes – like the S-Bahn – to the “FahrRat”, the advisory board for bicycle promotion to the Senate Department.

View of Transport Companies



Present Subjects of Discussion

- Share of cycling will increase even further (effects on extent/capacities of cycling infrastructure)...
- Public transport needs to attract new user groups, especially in the light of changing framework conditions (demographic change etc.)
- Certain infrastructures can not be continually extended (e.g. on-board bicycle carriage capacities)...
- Public transport services and tariffs do not yet sufficiently account for the increasing importance of multimodal orientated transport users...
- There is a need to develop and explore new, future orientated provisions for combined bicycle / public transport use...

New Measures

Pilot Scheme „Public Bikes“ in Berlin:

- Expansion of existing „Call a bike“-service
- Foresees about 70 renting stations with 1,200 new public rented bikes to be launched in the local district of Mitte
- Will be located near public transport stations and relevant destinations
- Stepwise integration in public transport tariff attempted (public rented bikes as integrated part of public transport system)
- Objectives:
 - To enhance the use of the bicycle subsequent to longer public transport trips
 - To take pressure of rail bound public transport regarding exceeding of capacities because of on-board bicycle carriage (mainly S-Bahn)
 - To provide attractive services for visitors
- To be accompanied by in-depth scientific research.

New Measures



The **Berlin Example**: Integration of Bicycles and Public Transport

New Measures



The **Berlin Example**: Integration of Bicycles and Public Transport

Conclusions and Resume

Conclusions and Resume

- The bigger the city the better the modes may complement each other
 - Large scope to utilise and usefully combine respective strengths
 - Longer distances make Bike+Ride and on-board carrying of bicycles an attractive alternative for users e.g. in Berlin
 - In small- and medium-sized cities with daily trip distances below 5 km these combinations are often less meaningful
- Requirements of respective strategies
 - Long-term perspective; embedded in superior and master plans
 - Supported by a set of financially secured measures
 - Regular evaluations
 - Timely integration of all relevant actors (transport companies, public transport authorities, transport planning, interest groups...)
- Acceptance depends on qualitative aspects
 - Standard of bicycle parking lots and racks
 - Tariff and conditions of on-board carriage etc.
- Considerable potentials should be envisaged as large increases in use - especially in bigger cities

General Conclusions and Resume

- Bicycles and public transport are rivals
 - On short and medium distances up to 5 km
 - Provide attractive alternatives for daily trips
 - Often comparable travel times, yet characteristic differences, e.g.
 - Temporal flexibility, cost advantage, pleasure in movement and gaining fitness, direct door-to-door connections
 - Weather independence, comfort of travel, usability for (nearly) all groups of population
- The multimodal bicycle and public transport user is not the classic “commutation ticket client”: challenges for tariff and fare setting
- Problem faced by public transport in rivalry situation:
 - Expected to keep up attractive transport services to fulfil public interests even when economically no longer viable
 - Probably useful solution approach
 - Flexible and demand orientated provisions
 - Concentrate limited financial resources in areas, where public transport competes with the car over larger passenger volumes

Thank you for your Attention!

