ROAD SAFETY AND BICYCLE PLANNING IN BERLIN

Merja Spott, Coordinator for Walking and Cycling
Senate Department for the Environment, Transport and Climate Protection, Berlin
Content

1. Berlin
   - Overview
   - Road safety - cyclists

2. Transport strategies
   - Road Safety Programme
   - Cycling Action Plan

3. Cycling Action Plan - Specifications

4. Quick planning – Using the pandemic for good

Source: Ralf Rühmeier
Berlin

Road safety and bicycle planning in Berlin

Area: 892 km²
ca. 3,64 Mio. Inhabitants
ca. 1,8 Mio. Employees
Low level of commuting
Low level of rate of motorisation
Polycentral
Berlin - Modal share
Daily trips of Berlin inhabitants and mode of transport

2013
- Car: 30%
- Public Transport: 27%
- Pedestrians: 30%
- Cycling: 13%

2018
- Car: 26%
- Public Transport: 27%
- Pedestrians: 29%
- Cycling: 18%

Source: SrV
Berlin used to be different ....

Source: SenUVK

Source: SenUVK
Berlin used to be different ....

Road Network

Source: SenUVK
Berlin used to be different ….

Network of public transport
- Very dense network
- High frequencies

Source: SenUVK
Berlin used to be different ....

Different cycling infrastructure

70ies/80ies: West Berlin - old, narrow cycling paths

90ies: In the new center, cycling paths > not sufficient for today's demand

In the 2000: cheap, fast to implement: cycle lanes

Source: Merja Spott
### Road Safety - Cyclists

#### Accidents with cyclists involved

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Cyclists Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>7,724</td>
</tr>
<tr>
<td>2016</td>
<td>7,495</td>
</tr>
<tr>
<td>2017</td>
<td>7,069</td>
</tr>
<tr>
<td>2018</td>
<td>7,971</td>
</tr>
<tr>
<td>2019</td>
<td>7,854</td>
</tr>
<tr>
<td>2020</td>
<td>7,868</td>
</tr>
</tbody>
</table>

#### Number of cyclists involved in an accident

<table>
<thead>
<tr>
<th>Year</th>
<th>Lightly Injured</th>
<th>Badly Injured</th>
<th>Fatal Accident</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>4,740</td>
<td>618</td>
<td>10</td>
</tr>
<tr>
<td>2016</td>
<td>4,673</td>
<td>583</td>
<td>17</td>
</tr>
<tr>
<td>2017</td>
<td>4,350</td>
<td>627</td>
<td>9</td>
</tr>
<tr>
<td>2018</td>
<td>4,886</td>
<td>743</td>
<td>11</td>
</tr>
<tr>
<td>2019</td>
<td>4,793</td>
<td>670</td>
<td>6</td>
</tr>
<tr>
<td>2020</td>
<td>4,885</td>
<td>688</td>
<td>17</td>
</tr>
</tbody>
</table>

Source: Polizei Berlin 2021
Road Safety - Cyclists

- Number of accidents with serious consequences is irregular
- Number of accidents is slightly getting higher, but much less than the increase of the bike traffic

- Share of bike traffic (SrV):
  2013 13% > 2018: 18% (daily trips)
- Amout of cyclists at 12 counting points:
  increase of 129% from 2017 until 2020

- Some mayor spots where accidents happen, but in general accidents happen everywhere

- Main cause: Right-turning

Source: Polizei Berlin
Strategies - What is new?

Mobility Act
Passed in 2018
- First act of this kind in Germany
- Aim: faster and better results through stronger legal obligation
- Three parts:
  1 part: cycling, public transport
  2 part: pedestrians
  3 part: fright traffic and new forms of mobility [not yet passed]
- Main goals:
  - Improvement of the environment friendly modes of transport
  - Vision zero

Source: Ralf Rühmeier
Strategies

Mobility Act

Strategy Mobility and Traffic (Step)

- Public Transport Implementation Plan
- Cycling Action Plan
- Pedestrian Action Plan
- Road Safety Programme
- Conception for Freight Traffic

Has not been started yet
Strategies - Road Safety Programme
(Verkehrssicherheitsprogramm Berlin from 2014)

> Action plan for measures until 2020

Main topics:
- Activities for more road safety
- Improvement of the infrastructure and the transport system
- Education in schools and for adults
- Networking

> Road Safety Commitee
Yearly Meeting: Presentation of results, discussions

Source: Ralf Rühmeier
Strategies - Road Safety Programme  
(Verkehrssicherheitsprogramm Berlin from 2014)

> New Road Safety programme

- Development in 2022, Aim: Finalisation 2023
- Focus: How to accomplish the vision zero?
- Analysis of the reasons for accidents and development of measures

Source: Ralf Rühmeier
Strategies - Cycling Action Plan
(Radverkehrsplan (RVP))

Formal resolution/enacting > high liability
- Transfer of content of the Mobility Act for implementation
- To guarantee the rate and the quality of the implementation of cycling infrastructure
- Content:
  - Bicycle network
  - Design principles for cycle paths/lanes and junctions
  - Bicycle parking
  - Publicity
  - Evaluation und Monitoring
- Hasn’t been finaly agreed by the commities
Cycling Action Plan - Specifications

Bike Network
Priority network
865km

Source: SenUVK
### Cycling Action Plan - Specifications

<table>
<thead>
<tr>
<th></th>
<th>One way</th>
<th>Both directions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Network - High priority</strong></td>
<td><strong>Width 2,50m</strong></td>
<td><strong>Width 4m</strong></td>
</tr>
<tr>
<td></td>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
</tr>
<tr>
<td><strong>Network – Basic - standard</strong></td>
<td><strong>Width 2,30m</strong> (Min. 2,00m)</td>
<td><strong>Width 4m</strong></td>
</tr>
<tr>
<td></td>
<td><img src="image3" alt="Diagram" /></td>
<td><img src="image4" alt="Diagram" /></td>
</tr>
</tbody>
</table>

Source: SenUVK
Cycling Action Plan - Specifications

- Protection if possible
Cycling Action Plan - Specifications

- Major principles for the planning of junctions
  - Avoiding conflicts
  - Enforcing low speed through street design
  - Consistency throughout the city and comprehensibility
  - Accessible for people with disabilities
  - Sufficient space for waiting phases at traffic lights and short signal phases

Source: Ralf Rühmeier
Cycling Action Plan - Specifications

- Colouring of the passages on crossings
  > Red paint on all mayor crossings

Source: Ralf Rühmeier
Cycling Action Plan - Specifications

- Bollards especially 10m before the traffic light to force the car traffic to drive slowly

Source: Ralf Rühmeier
Cycling Action Plan - Specifications

- No further usage of this design, Improving the existing with red paint and securing with little bollards

Source: Merja Spott
Cycling Action Plan - Specifications

- At traffic lights: Separation of cyclists who go straight and car traffic which turns right

- Modern traffic light systems which detect the cyclists

Source: Merja Spott
Cycling Action Plan - Specifications
Cycling Action Plan - Specifications

- Improvements to the limited visibility
- Standard in the guidances

> Implementation is a political challenge

Source: FGSV 2006
Cycling Action Plan - Specifications

- Make it simple!!!
- Reduction of lanes > reduction of conflicts, gainings space
Cycling Action Plan - Specifications

Trying „new“ designs of junctions

- More roundabouts
- Testing of the dutch approach

Source: ADFC
Dutch approach

- Usage where it fits > not as a standard
- Only where the conflicts with pedestrians are reduced to a minimum
- Only traffic lights programme that separates turning car traffic and cyclists who go straight
- Advantage: safe space for left turning cyclists
**Platz der Vereinten Nationen**

Option 1 – Geschützte Kreuzung mit eigenen Abbiegespuren

Das Kreuzungsdesign ermöglicht eine konfliktfreie Signalphasensteuerung.


Anzahl der Fahrstreifen reduziert

Gesonderte Rechtsabbiegespur

Linksabbiegen zulassen?

Kürzere Querungsstrecke für den Fuß- und Radverkehr

Signalfreies Rechtsabbiegen für den Radverkehr

Source: Ramboll
Quick planning – Using the pandemic for good

**Pop-up cycle lanes:**
- Using the momentum of the pandemic to try new methods
- The justification for the measures was road safety not the pandemic
- The temporary measures can be used as preliminary work for permanent solutions
- The first cases were relatively „easy“: three lanes available > space for relocation without radical changes
Quick planning – Using the pandemic for good

Pop-up cycle lanes:
- Most accidents happen at the junctions not along the streets so lanes are not so important to avoid actual accidents
  **BUT** > for the perception of safety
  > Mayor gaps in the network were closed
- No quick changes at the junctions
- Trying new elements

Source: Peter Broytman
Thank you for your attention.

Merja Spott
Senatsverwaltung für Umwelt, Verkehr und Klimaschutz
Tel. 030/9025-1206
merja.spott@senuvk.berlin.de