

交通支撑城镇化可持续发展 – 来自欧洲的经验

Transport Support Sustainable Urbanization - Experiences
from Europe

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2015年7月 广州

What GIZ stands for...

Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH ("German Technical Cooperation")

German state-owned enterprise
working on behalf of the German government

International cooperation
for sustainable development
(transport just one sector)

Operates in more than
130 countries (in China for more
than 30 years)

Business
volume 2012
2 billion EUR
(40 Mio. EUR
in China)



Approx. 17,000
staff members
(ca. 170 in China)

GIZ Sustainable Transport in China: What we do...

- Sustainable Transport Programme: Established **2010**
- Focus: **Contribute to the Development of Low Carbon Transport System**
- Key Activities:



Climate Protection:
Policies and
Measures



Sustainable
Urban Transport



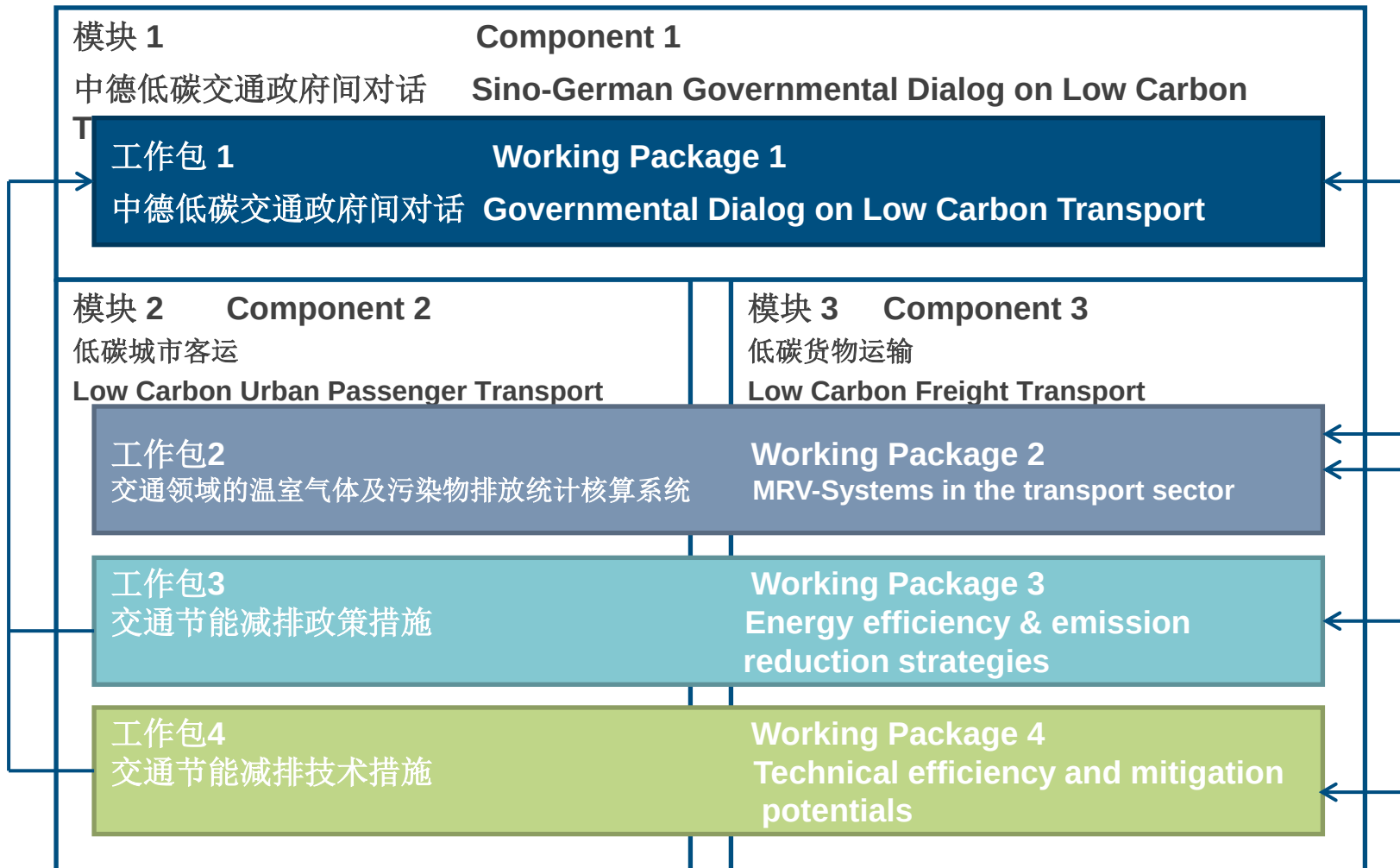
Electric Mobility and
Alternative Fuels



Freight Transport
and Green Logistics

- Cross-cutting issue: **Carbon Accounting and Emission Evaluation**

中德低碳交通合作项目 Sino-German Cooperation on Low Carbon Transport





1 China's Transport Challenges



The former Kingdom of Bicycles...

Source: Wang Wenlan



...already turned into the Kingdom of cars!



Challenges

日益增加的交通出行需求

Urbanisation challenge

600 million people in China live in cities.

About **1 billion** people will live in China's cities by 2030.

More than **220 Chinese cities** will have at least one million inhabitants.

By 2025 **90%** of China's GDP will be generated in the cities.



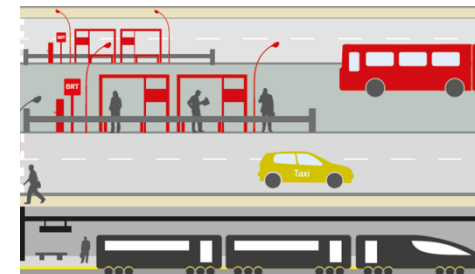
Urban Transport challenge

Every day **35.000 cars** are registered in China. Most of them in cities.

20-30% of urban air pollution can be traced back to road transport.

On an average day Beijing's air pollution is **3.5 times higher** than recommended by WHO.

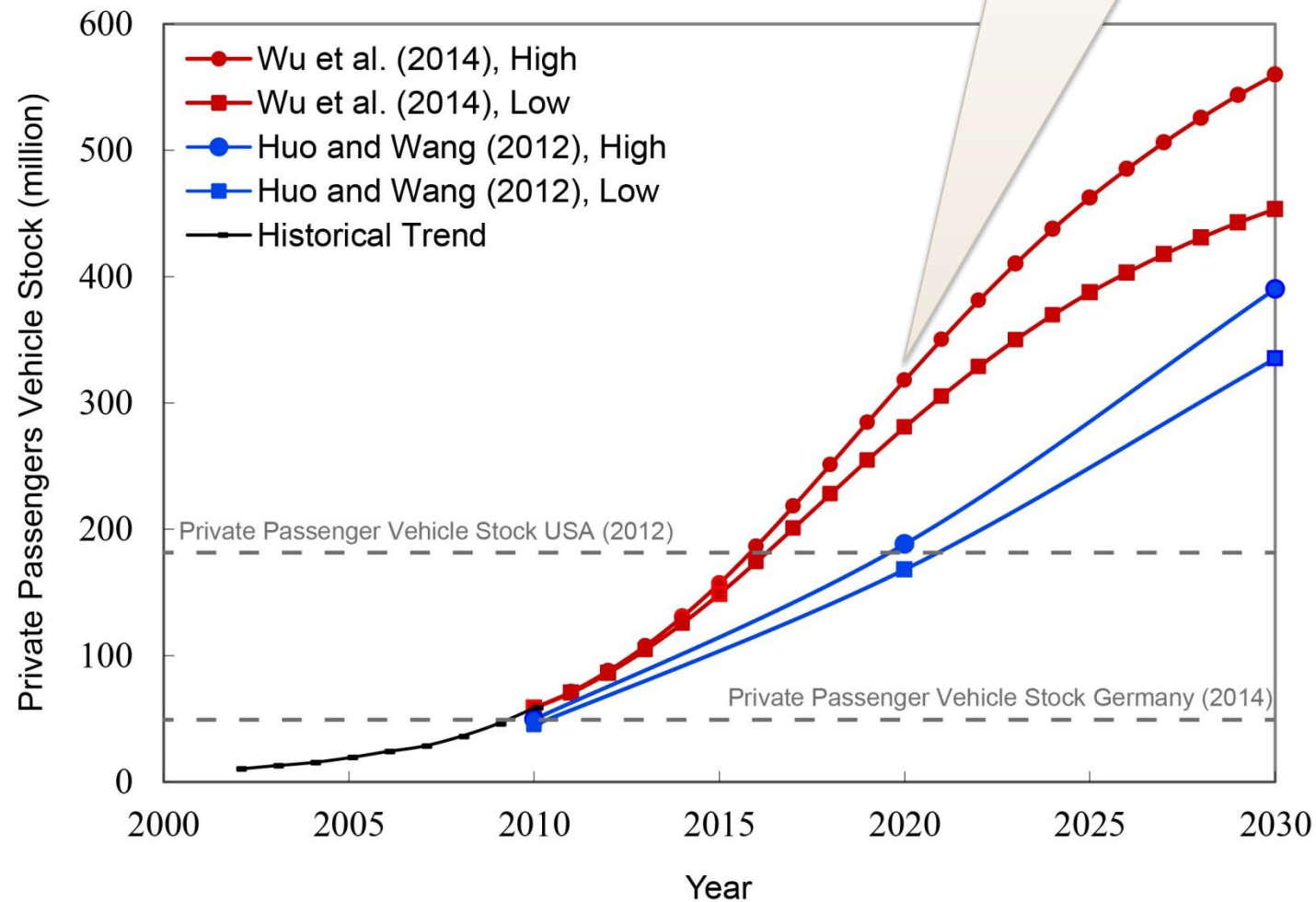
Car ownership rate in Beijing already **240 cars per 1000** residents.





快速机动化挑战

5 Mio. NEVs in 2020?





2 Experiences from Europe



以交通为导向的城市发展



交通发展引领城市发展

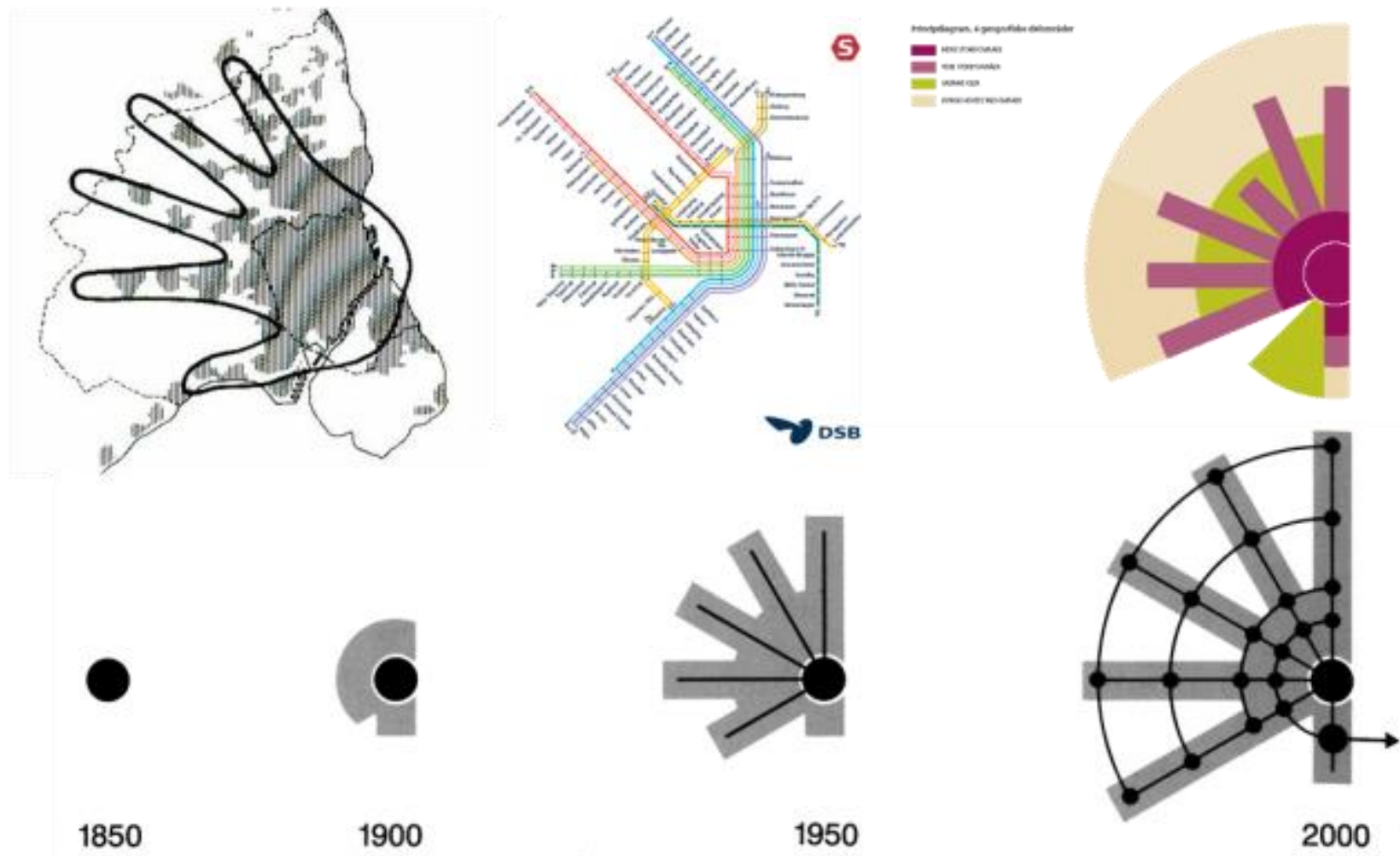
- 沿着重要交通干线发展起来的住宅区和工业区呈星型结构
- 一直到20世纪20年代以前，伴随着铁路运输系统的发展，城市得到快速发展，例如：
- 下图所示：地铁站开通一年后，在 **Reichskanzlerplatz**（今特奥多尔·霍伊斯广场）出现了“销售建筑房屋用地”的广告牌

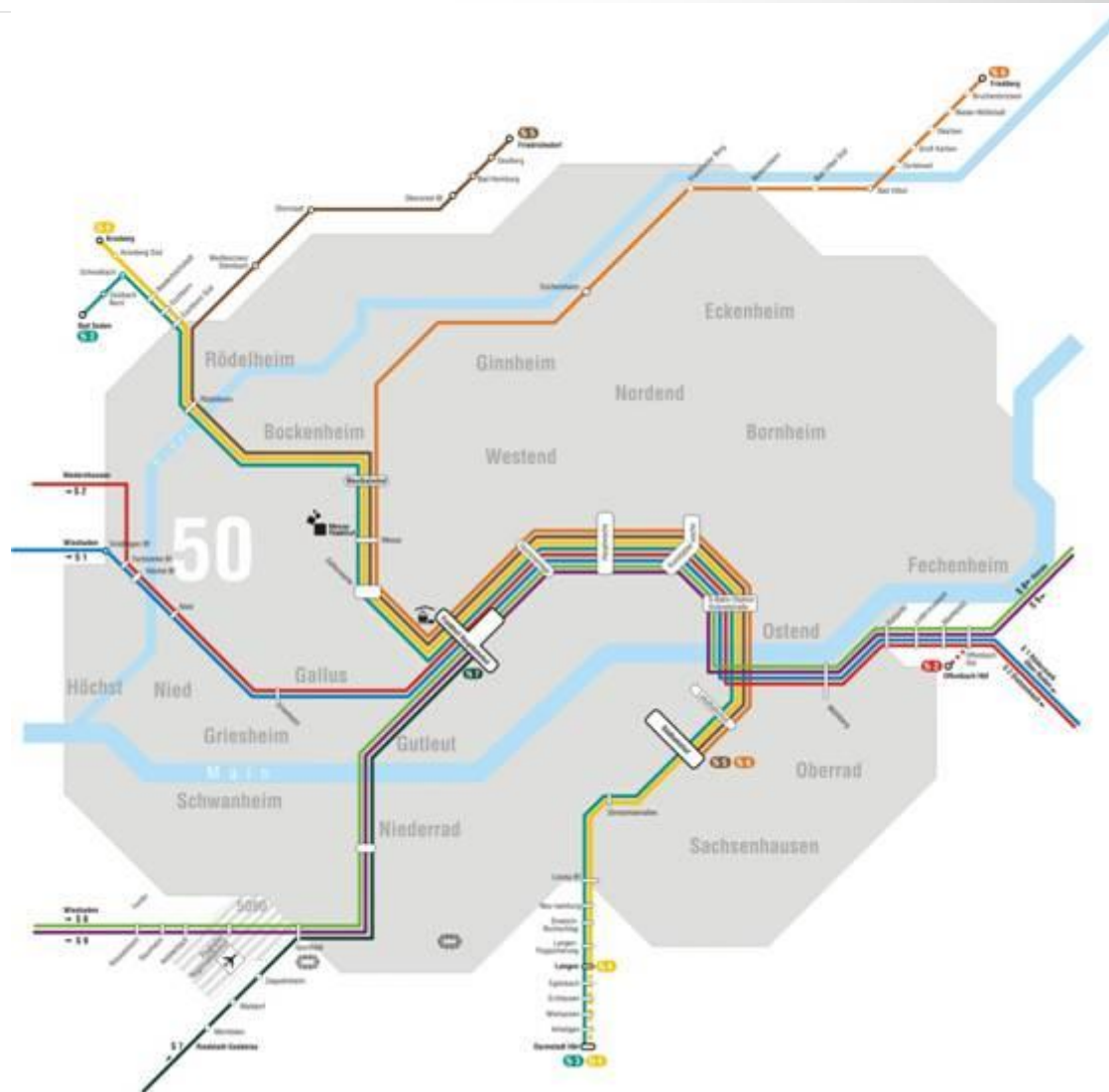


图片拍摄：Waldemar Titzenthaler（1869-1937）



连贯性的城市结构





Regional Transport 'S-Bahn' (suburban commuter train)

区域交通‘高速火车’（市郊火车）

>> Connecting Frankfurt with its surrounding areas

连接法兰克福与周边地区

>> Central tunnel under the city
城市下面的中央隧道

>> Electric trains 电气列车

>> Longer station spacing 站距长

>> High travel speed 行程车速高

>> 9 lines 9 条线路

>> 48,000 km daily 日运行48,000 km

>> 482,000 passengers per day
日接待乘客482,000 人次

>> Trains every 15 to 30 minutes
每15分钟到30分钟一趟火车



一体化的区域交通网络 - 法兰克福

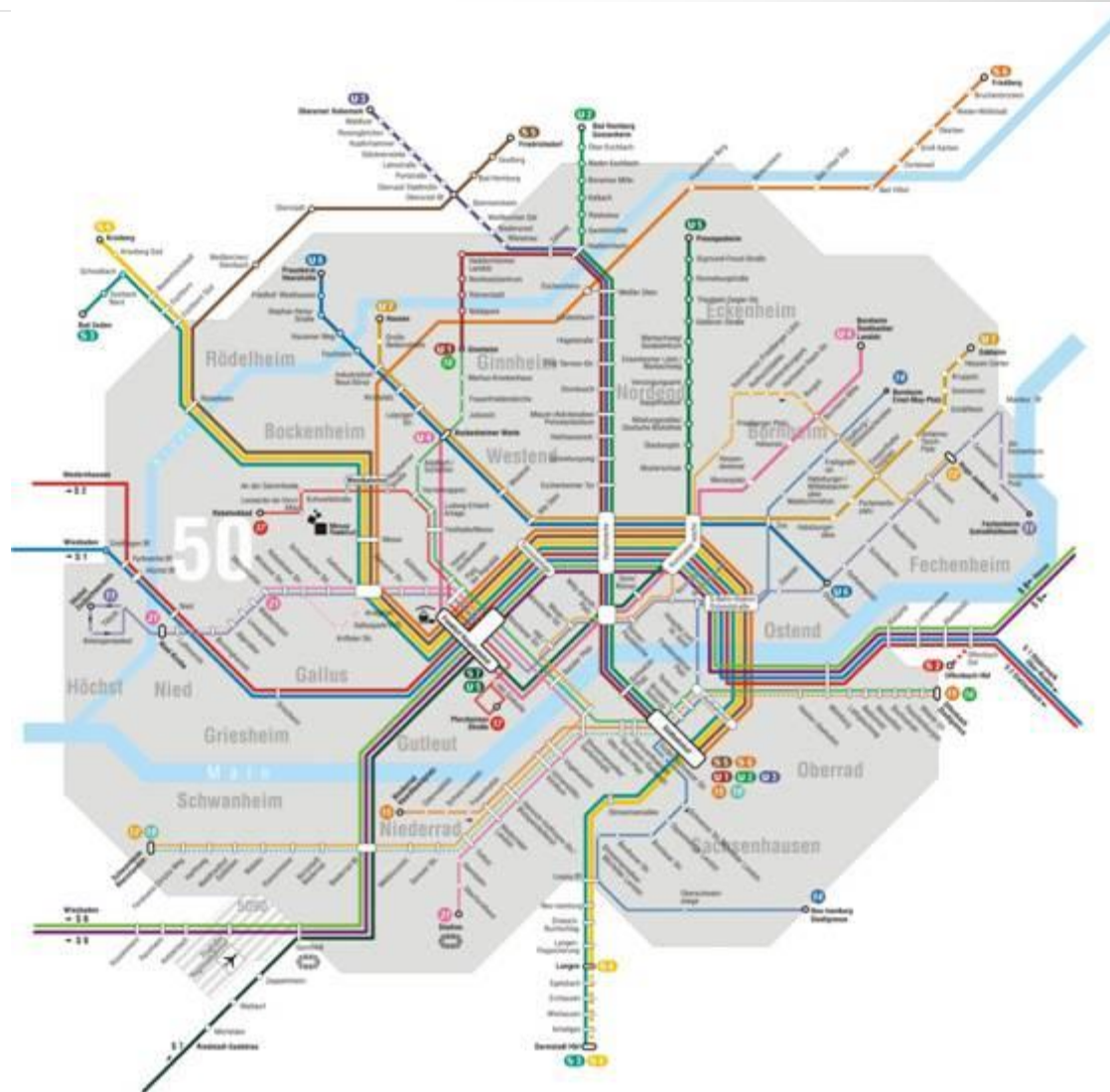


Underground / Metro 地铁

- >> Fast inner-city light rail
室内快速轻轨
- >> High traveling speed
行程车速高
- >> Central tunnel under the city
城市下面的中央隧道
- >> 7 lines 7 条线路
- >> 19,000 km daily 日运行19,000 km
- >> 410,000 passengers per day
日接待乘客410,000 人次
- >> Trains every 5 to 15 minutes
每5分钟到15分钟一趟火车



一体化的区域交通网络 - 法兰克福



Trams有轨电车

- >> Operating within the city
室内运营
- >> Tracks at street level
街道轨道
- >> Short spacing between tram stops
有轨电车站距短
- >> 8 Lines 8 条线路
- >> 19,000 km daily
日运行19,000 km
- >> 169,000 passengers per day
日接待乘客169,000 人次
- >> Trams every 7 to 15 minutes
没7分钟到15分钟一趟有轨电车

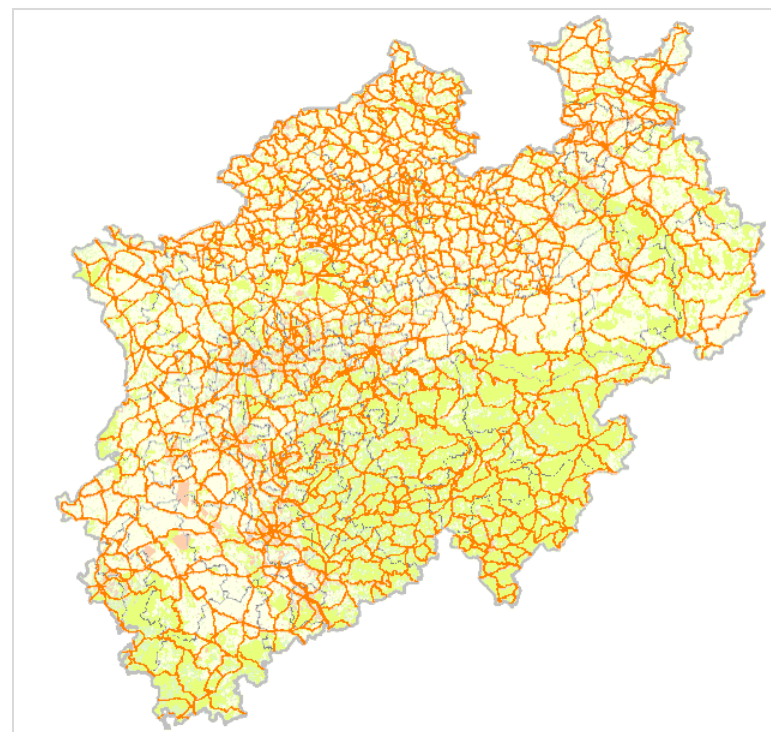
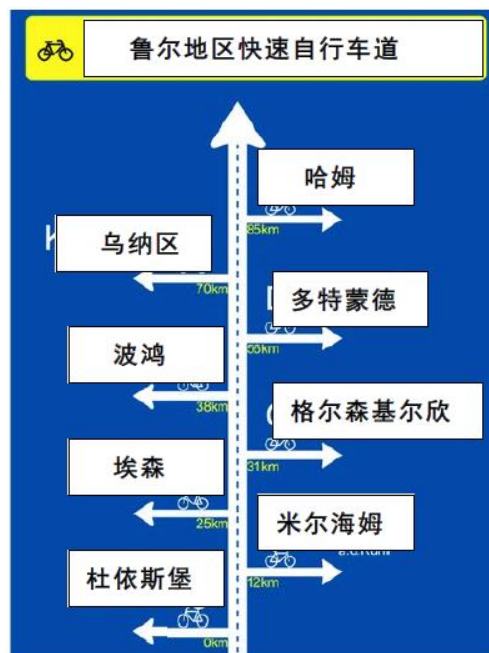


一体化的区域交通网络 - 法兰克福

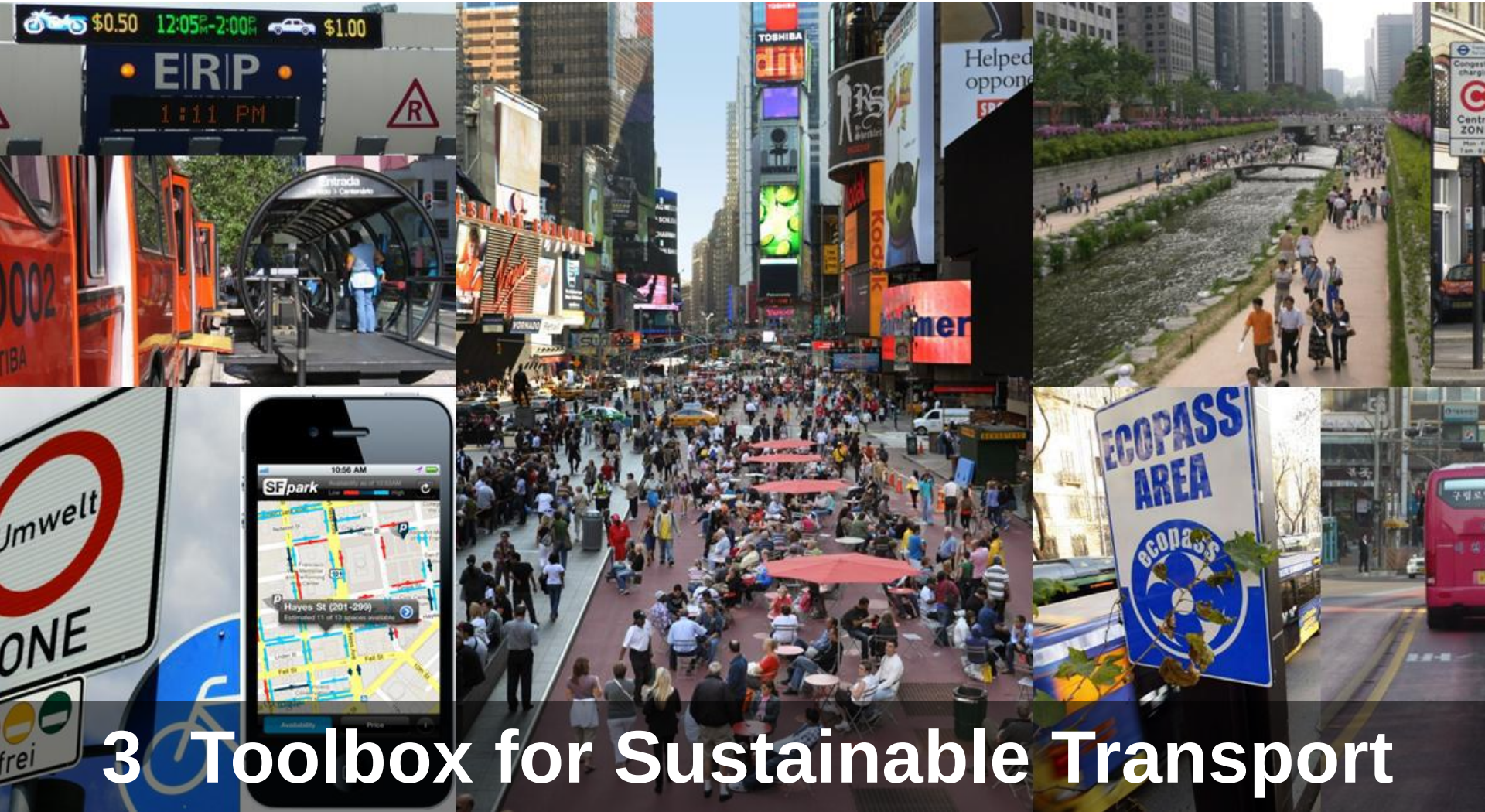


强化以人为本的出行环境，建设自行车高速公路

- 各主要城市建专供自行车使用的“自行车高速公路”，最高时速可达50公里
- 将短途自行车出行、短途公共客运和私人机动交通同等级别



德国北威州自行车网络



3 Toolbox for Sustainable Transport

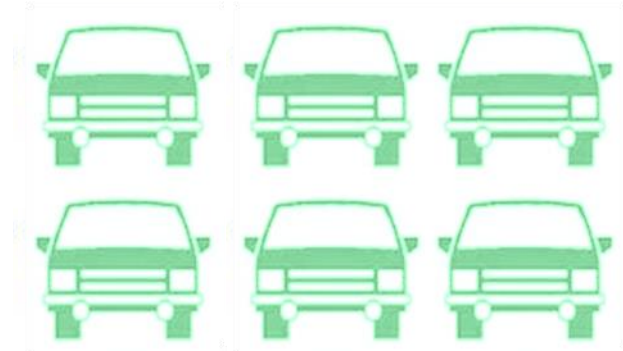


Our approach Towards Low Carbon Transport

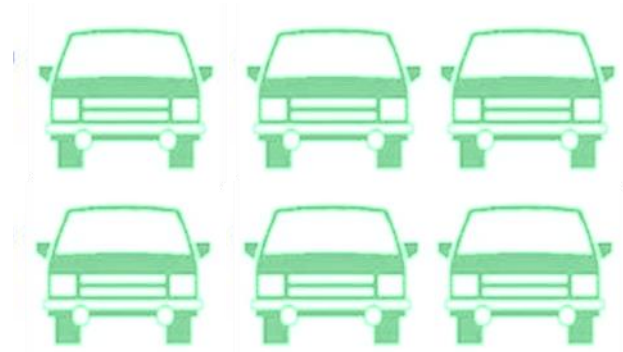
**Avoid trips and
reduce trip
distances**



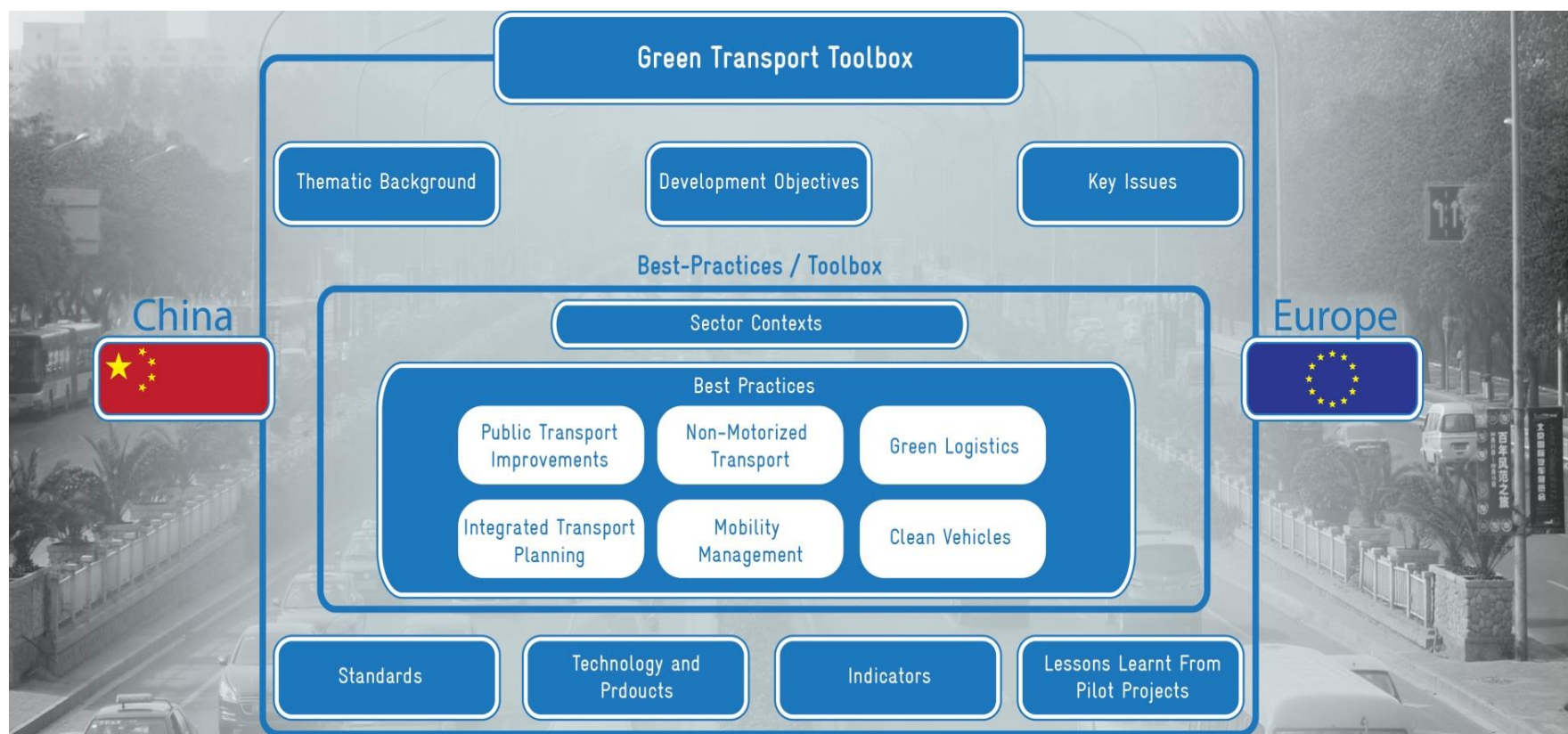
Shift modes



**Improve efficiency
and fuels**



可持续交通 “工具箱”



可持续交通的十项原则



原则1：规划密度计人文尺度



原则5：鼓励步行和自行车



原则6：控制车辆使用



原则7：停车管理



原则9：交流解决方案



原则2：交通导向型发展



原则4：改善交通服务质量



原则3：优化道路网络及使用



原则8：推广清洁车辆



原则10：面对挑战的综合对策

Thank you for your attention !

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