



Smart Mobility **智慧出行**

Carsharing as a Component of Multimodal Transport **汽车共享作为综合运输服务的组成部分**

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

27 April 2015

2015年4月27日



Internet +: A new concept for China's economy

互联网+: 中国经济的新思路

- Support of internet-based start-up companies
为基于互联网的新兴企业带来支持
- Adoption of new technologies in traditional sectors
为传统行业引进新技术
- Integrate mobile internet, cloud computing, big data, and the Internet of Things with modern manufacturing
将移动互联网，云计算，大数据以及现代制造业的物联网整合起来
- Encourage the healthy development of e-commerce, industrial networks, and Internet banking
鼓励支持电子商务，工业网络以及网上银行等的健康发展



Li Keqiang at the press conference of the 12th National People's Congress (March 5, 2015):

"I believe with the tailwinds generated by our "Internet+" strategy, we will be able to get the Chinese economy off to a higher level."

李克强总理在十二届全国人大三次会议记者会上提到“站在”互联网+“的风口上顺势而为，会使中国经济飞起来”



Internet +: Innovation Driver for Urban Transport

互联网+: 城市交通的创新驱动力

Door-to-Door
门到门运输

Inter- and Multimodality
多式联运

Seamless
无缝链接式出行

E-Ticketing
电子客票

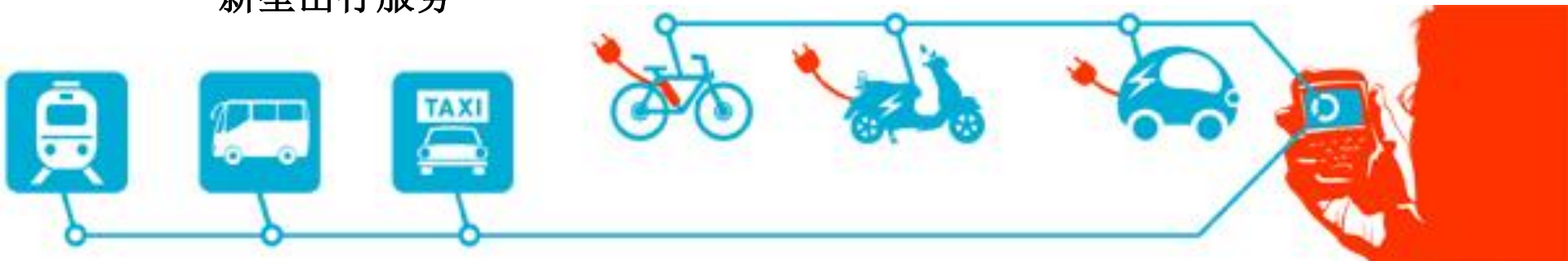
Big Data
大数据

Real-Time Information
实时信息

Shared Mobility
共享式出行

New Mobility Services
新型出行服务

Carsharing 汽车共享





Introducing Carsharing

什么是汽车共享

▶▶ Member-based mobility service

会员制的汽车服务

▶▶ 24/7 on demand, - 即时、

self-service, - 自助、

instant access, - 快速、

short-term - 短期、

and pay-per-use vehicle access - 按使用付费的车辆使用

▶▶ Customers pay an all-inclusive fee (incl. fuel, maintenance, insurance etc.)

用户支付车辆使用过程产生的全部费用（包括油耗、维护、保险等费用）



Car Jump



CITROËN Multicity



car2go Deutschland GmbH



car2go Deutschland GmbH

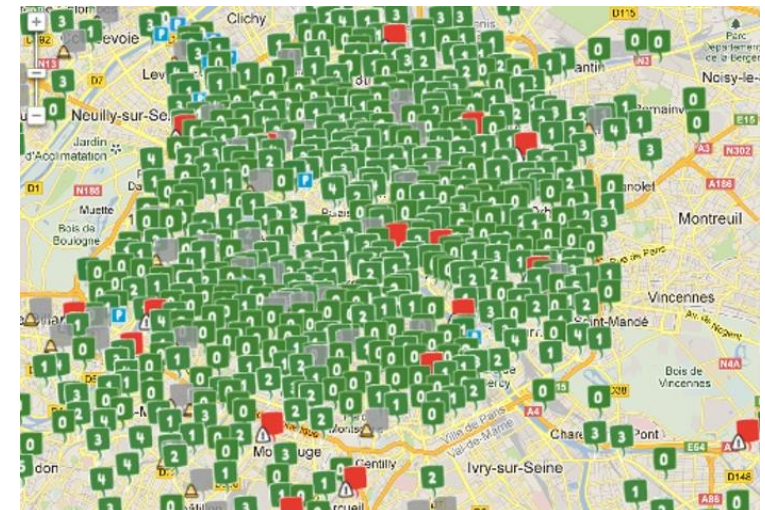


Station-Based Carsharing 固定站点汽车共享模式

- » Designated carsharing stations
专门的汽车共享服务站
- » Round-trip usage
需将车辆归还至初始租车点
- » Booking via phone, internet or smart phone app
通过电话、网络或智能手机客户端预约
- » Pre-booking of vehicles
可以对车辆进行提前预约
- » Hour-/Distance-based billing
按小时或里程计费



Cambio Carsharing, Bremen



Autolib' Paris



RP-online



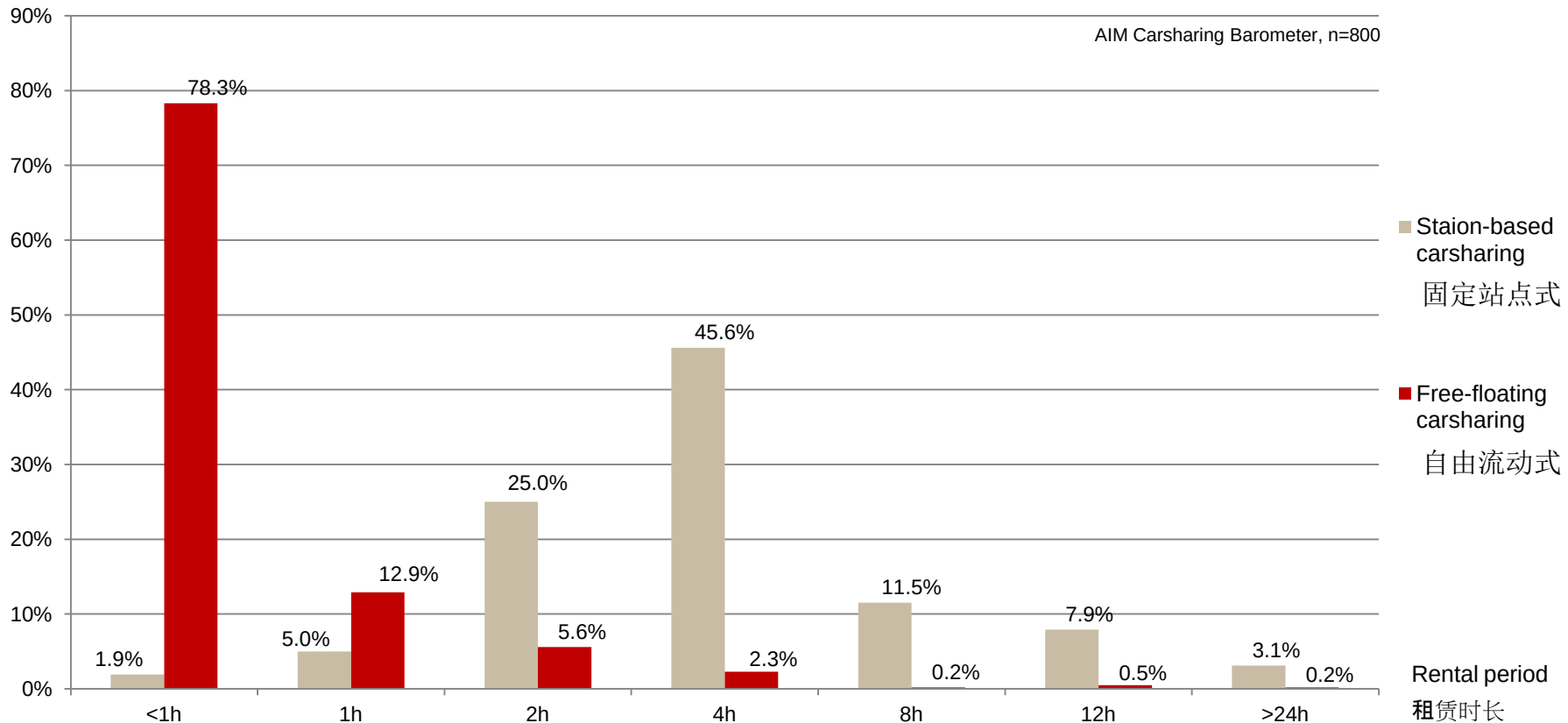
Berliner Morgenpost

Free-Floating Carsharing 自由流动式汽车共享

- ▶ Vehicles parked on public parking spaces within a defined service area
共享车辆停放在指定的公共停放区
- ▶ One-way usage
就近还车，无需归还至初始租车点
- ▶ Vehicle localization via smart phone app or internet
通过智能手机客户端或互联网对车辆进行定位
- ▶ Short-term vehicle booking only (15-30 min)
即时预约（提前15-30分钟）
- ▶ Minute-based billing (incl. parking fees)
按分钟计费（包括停车费）



Station-Based OR Free-Floating? 固定站点 还是自由流动式?

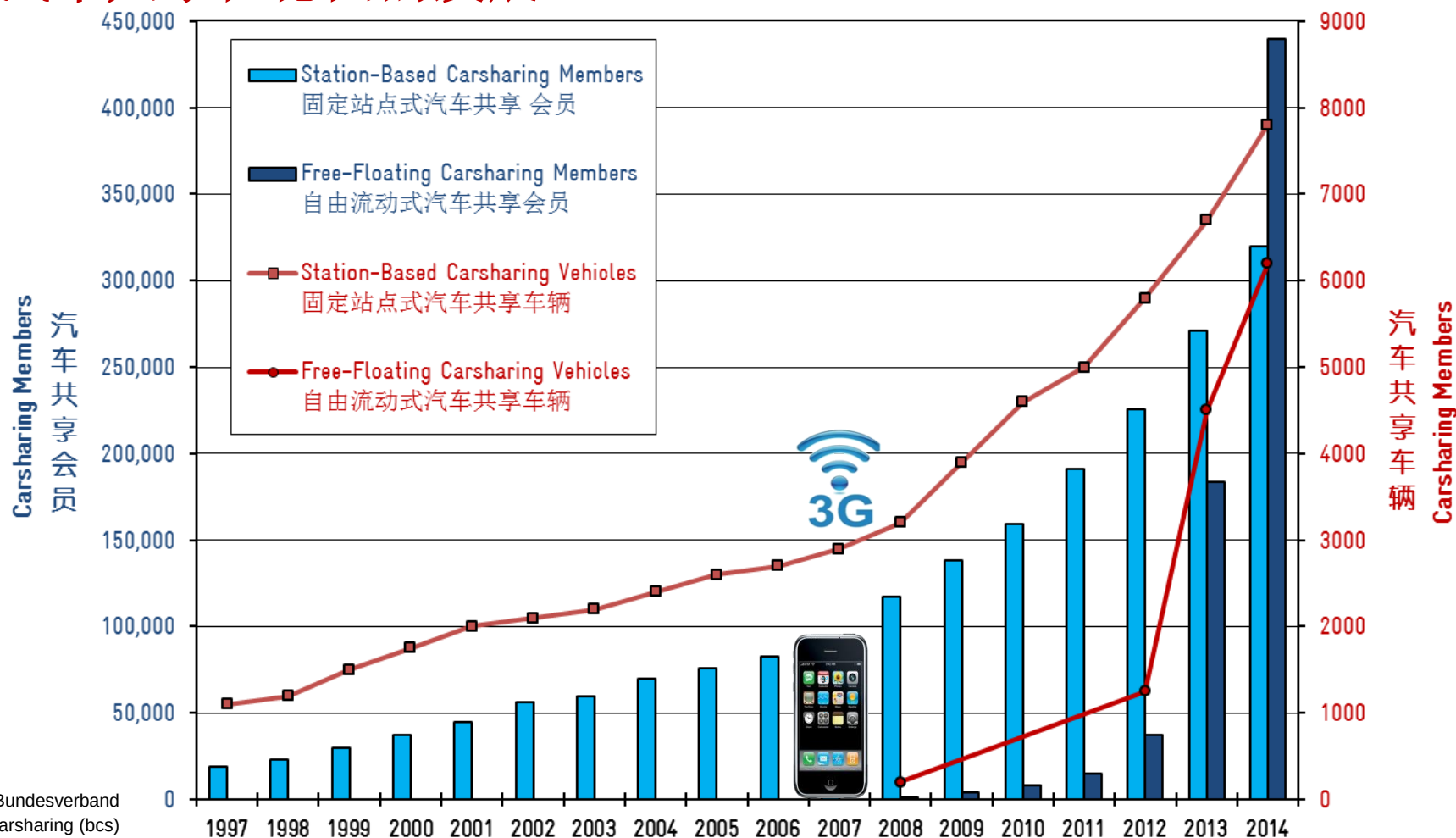


Station-Based AND Free-Floating! 两种模式同时需要!



Carsharing Development in Germany

汽车共享在德国的发展





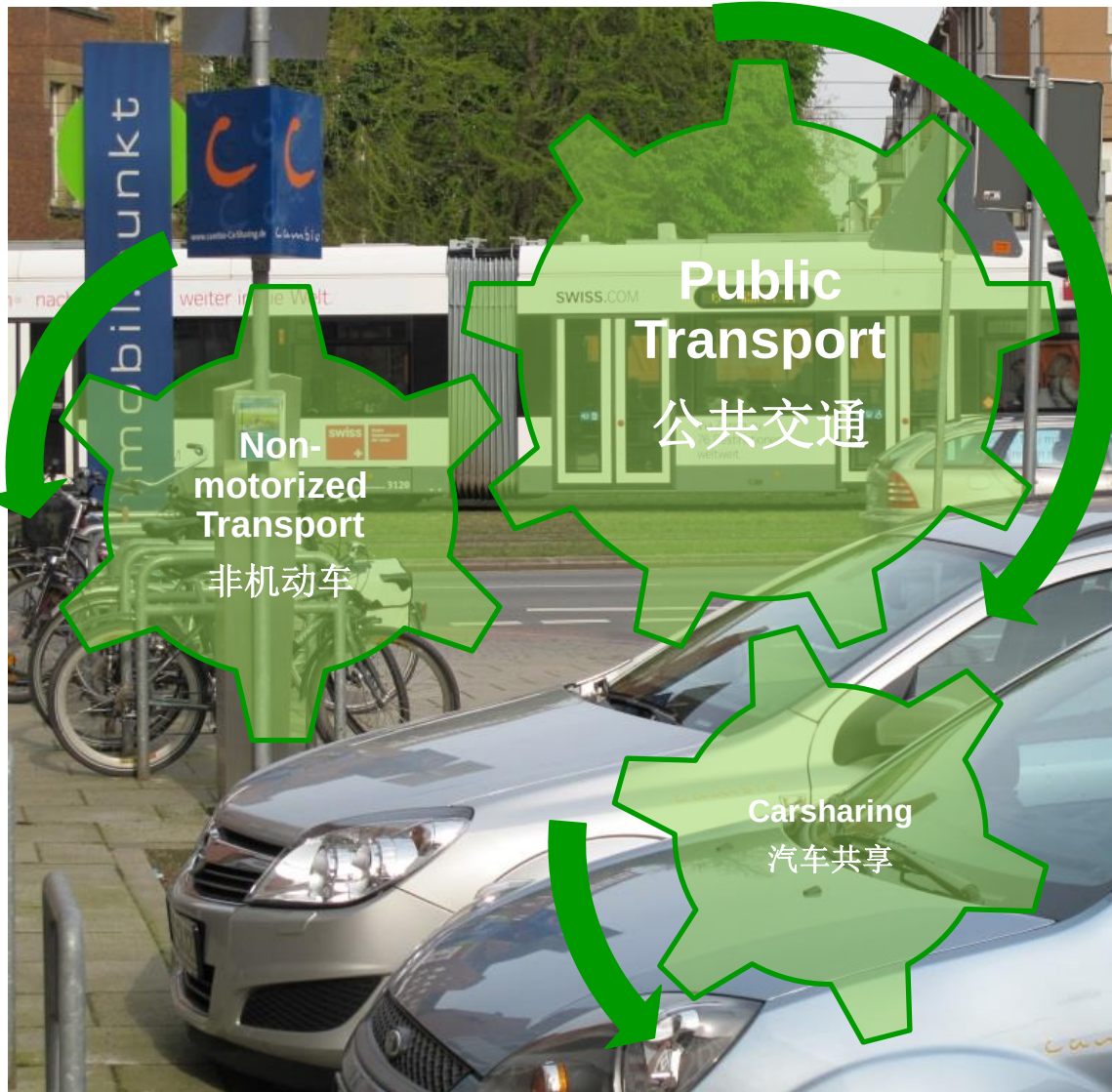
Carsharing: The “Missing Link” of Multimodal Transport

汽车共享：综合运输服务的“缺失环节”

- ▶ Carsharing and traditional public transport modes complement each other

汽车共享和传统公共交通模式互补





In Europe, carsharing users:

在欧洲，汽车共享用户：

avoid/postpone car ownership
避免或推迟购买小汽车
23 – 26%

sell private cars
出售已拥有小汽车
16 – 34%

reduce VKT
减少小汽车行驶里程
28 – 45%

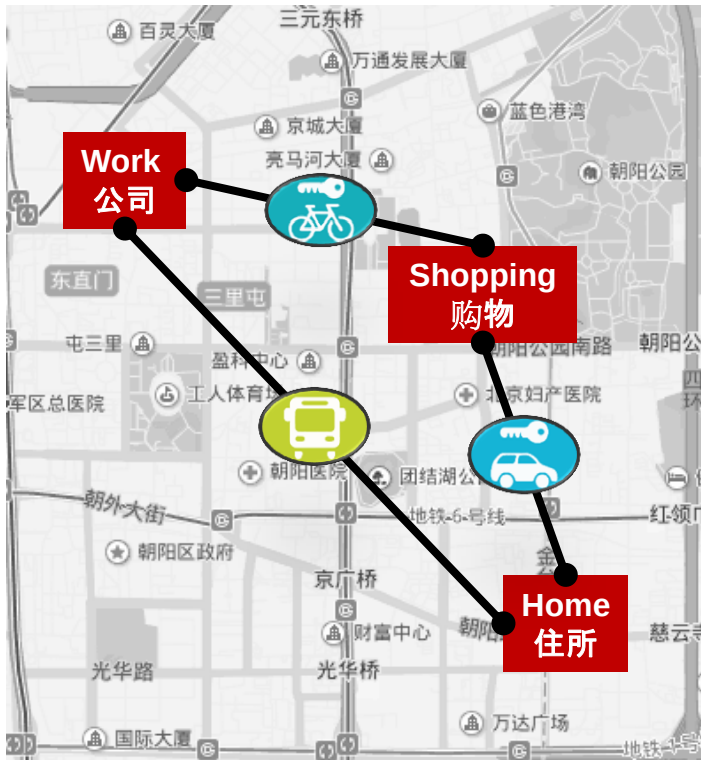
**1 carsharing vehicle can replace
4 – 11 private cars**
一辆汽车共享汽车可取代4-11辆私人小汽车

Cohen, Adam P.; Shaheen, Susan A. (2006): Worldwide Carsharing Growth: An International Comparison. Berkeley, USA



Carsharing as a Component of Multimodal Transport

汽车共享作为综合运输服务的组成部分



Multimodal behaviour
综合运输(多程、多方式结合出行)



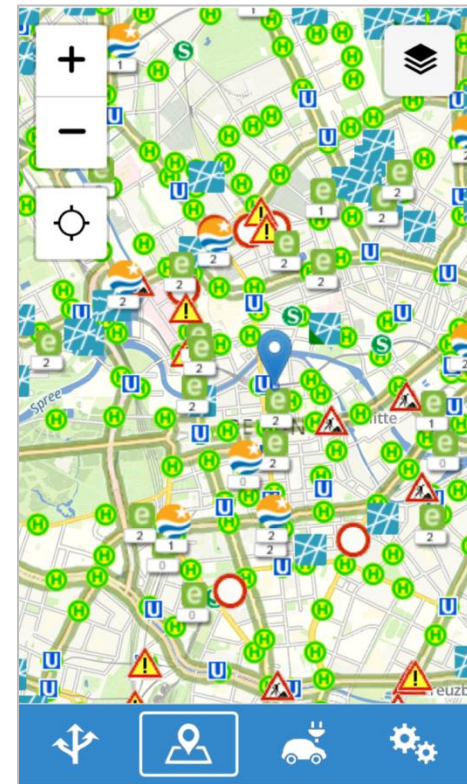
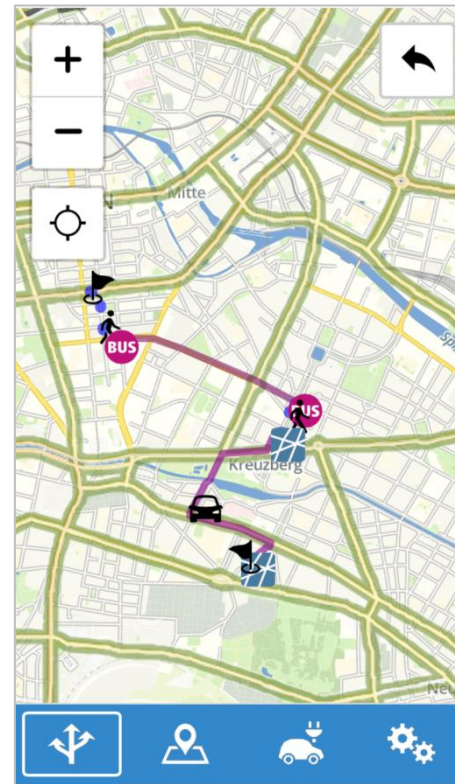
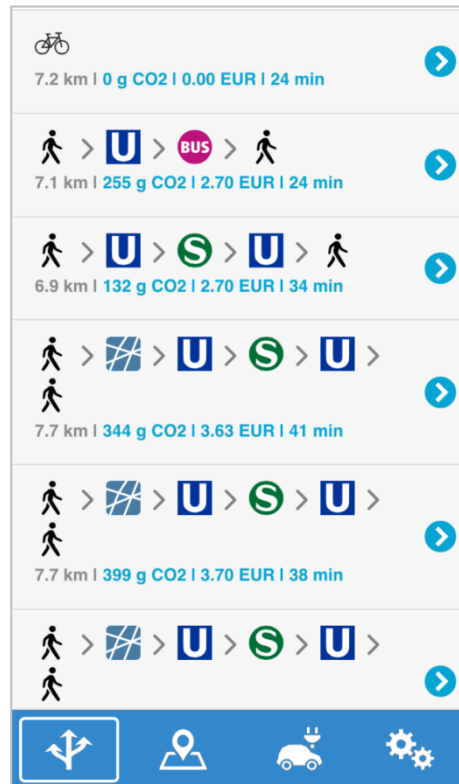
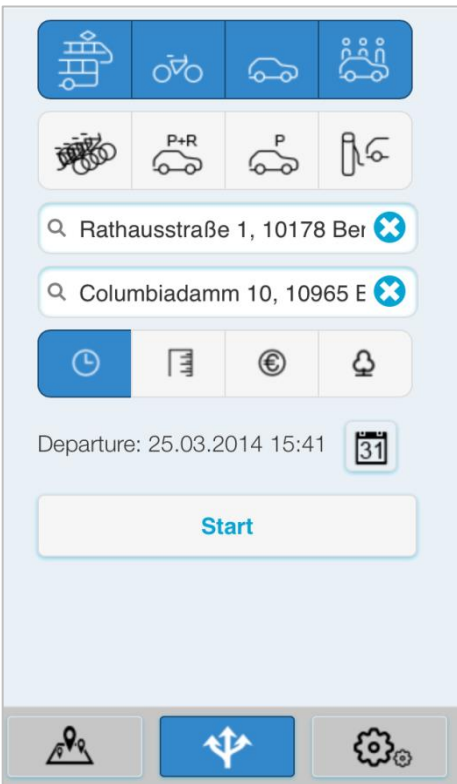
Intermodal behaviour
多种运输方式中转换乘
(单程, 多方式结合出行)



Carsharing as a Component of Multimodal Transport

汽车共享作为综合运输服务的组成部分

Molecules, Berlin



Customer-oriented,
individual routing
顾客导向型，个体路线

Transparent
in-app ticketing
清晰透明的智能手机
应用售票系统

GPS navigation
GPS导航

Real-time Information
实时信息



Carsharing in China 汽车共享在中国

- ▶▶ 350.000 Members
35万用户
- ▶▶ 4.665 Vehicles (~70% EV)
4665辆汽车 (约70%电动汽车)
- ▶▶ 1.012 Stations
1012各站点



北京

烟台



上海



杭州



深圳



Data from April 2015 数据采集于2015年4月



Carsharing Services in China

中国汽车共享服务





Moving Towards Smart Mobility: The Example of Beijing

向智慧出行发展：以北京为例



**Combined
Ticketing
通用票制**



**Real-time traffic
information
实时交通信息**

(E-)Carsharing



(电动)汽车共享



**Inter- and multimodal
routing 综合运输路径**



Moving Towards Smart Mobility: The Example of Beijing

向智慧出行发展：以北京为例

Real-time traffic information
实时交通信息

(E-)Carsharing

Combined Ticketing
通用票制

Inter- and multimodal routing 综合运输路径

(电动)汽车共享



Moving Towards Smart Mobility in Germany

向智慧出行发展



- ▶ Stakeholder involvement and cooperation
各方的参与与合作



- ▶ Data access and availability
数据访问与可用性

- ▶ Interoperability and integrated ticketing
互通性与集成票务系统

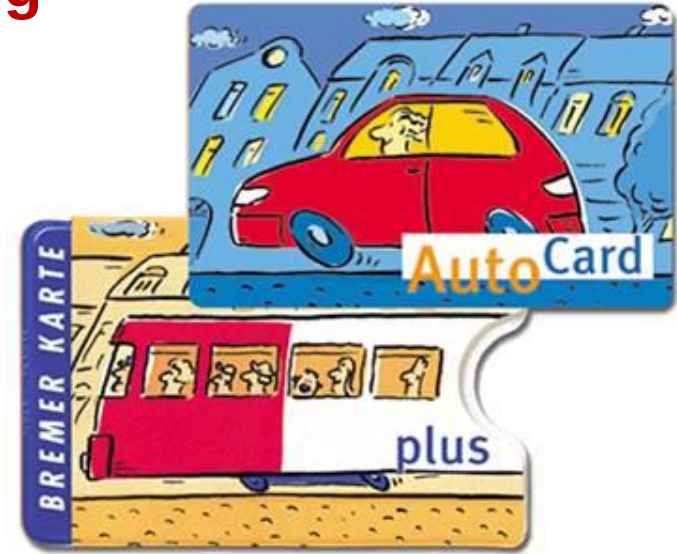


- ▶ Reliability
可靠性



Governmental Support for Carsharing 汽车共享需要的政府支持

- ▶ Including carsharing in an overall transport and urban development strategy
把汽车共享考虑进总的交通和城市发展战略
- ▶ Integrating carsharing in public transport
把汽车共享融合到公共交通系统
- ▶ Introducing supportive parking policies
引进有效的停车政策
- ▶ Integrating carsharing in new urban real estate developments
把汽车共享整合到新的城市房产开发中
- ▶ Promotion and awareness raising
宣传及意识普及



Good Practice in Germany: 优秀案例

The city of Bremen adopted the worldwide first municipal
“**Carsharing Action Plan**” in September 2009
2009年9月，不莱梅引进世界范围内第一个市级汽车共享行动计划



Michael Glotz-Richter, Bremen



GIZ Carsharing Activities / GIZ 汽车共享领域的项目活动



- ▶▶ GIZ北京办公室参与汽车共享试点项目，作为“友好用户”将汽车共享引进北京盛福大厦试点区（2013年11月起至今）



- ▶▶ GIZ邀请交通运输部代表团赴欧洲（德国，荷兰）考察汽车共享（2013年8月）



- ▶▶ 不莱梅市建交委可持续交通处处长Michael Glotz-Richter 先生在交通运输部于江苏镇江组织的年度培训上就汽车共享作了报告（2014年6月）



- ▶▶ 德国国际合作机构关于汽车共享出版物以及下载链接
- ▶▶ Download:
www.sustainabletransport.org



谢谢! Thank you very much for your attention!

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