



Carsharing

– A Contribution to Sustainable Urban Transport in China?

汽车共享

– 助力中国可持续城市交通?

Sino-German Cooperation Project on Electro-Mobility and Climate Protection

中德电动汽车及气候保护项目

September 21st, 2014

2014年9月21日



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、

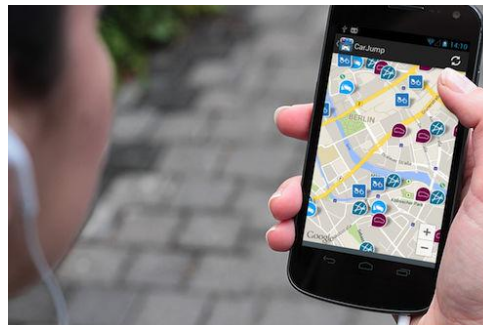
instant access, - 快速、

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中产生的全部费用（包括油耗、维护、保险等费用）



Car Jump



CITROËN Multicity



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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



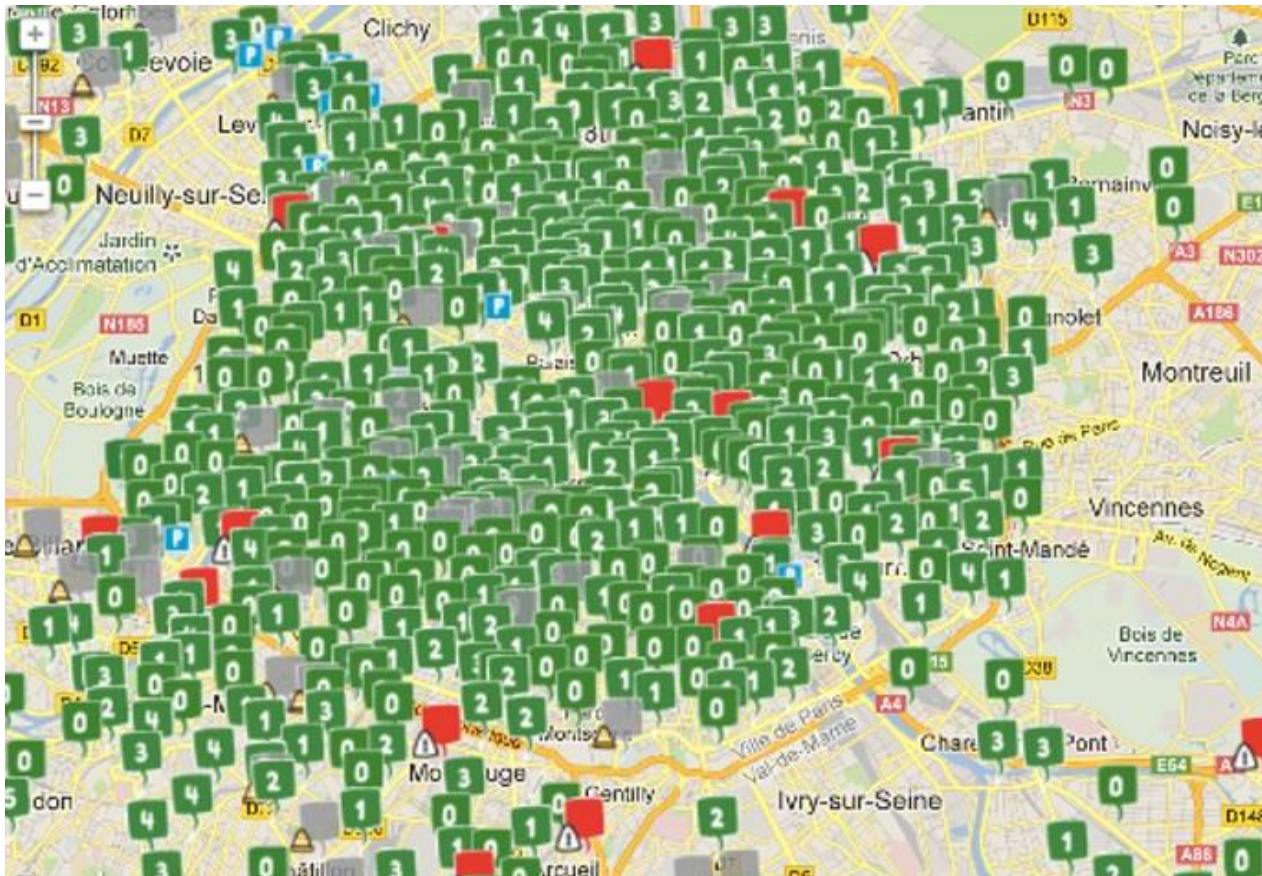
Cambio Carsharing, Bremen



Zipcar



Station-Based Carsharing 固定站点汽车共享模式



Societe Autolib'

Autolib' – Paris, France

法国巴黎Autolib' 汽车
共享运营商

STATIONS 站点

 Available station
可用站点

 Underground parking station
地下停车位



RP-online



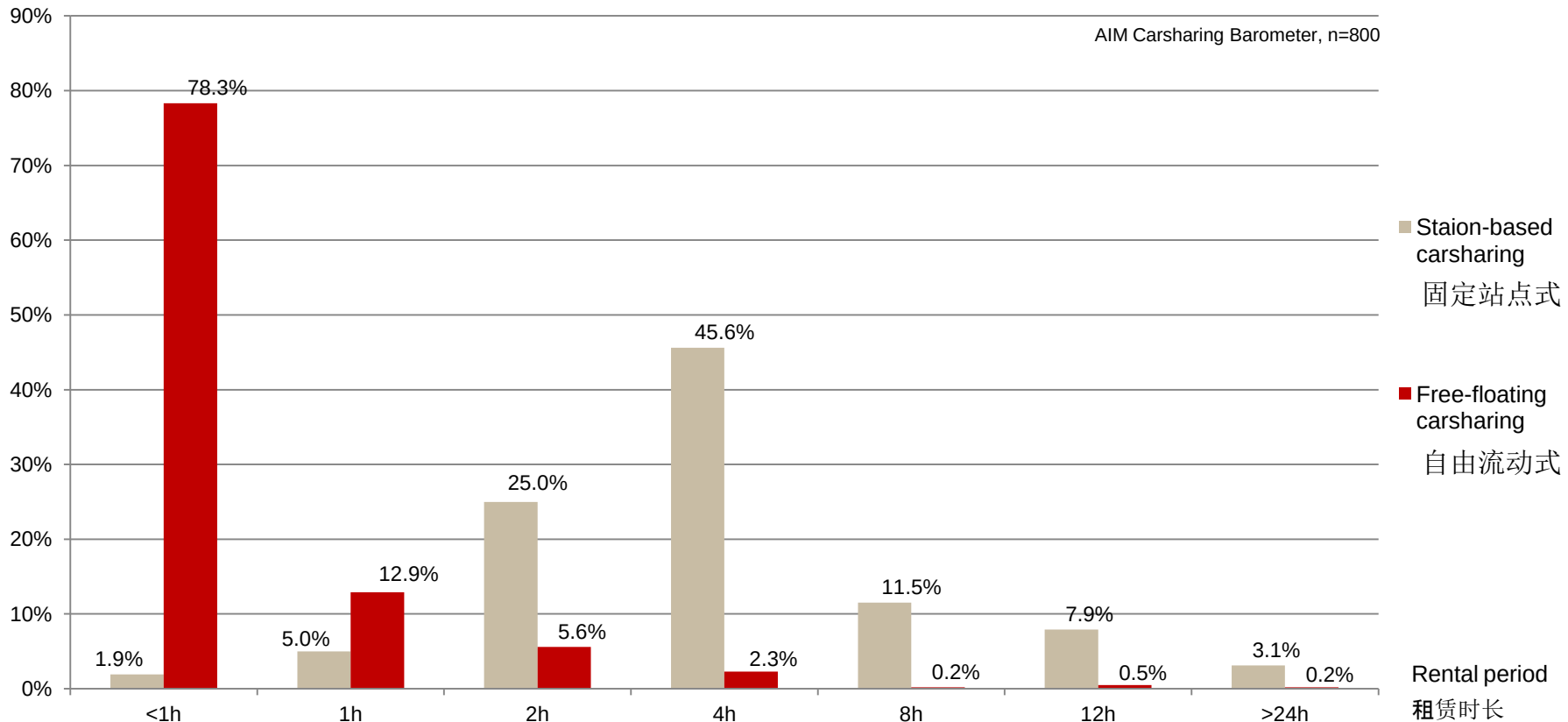
Berliner Morgenpost

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!



Distinction From Other Mobility-Services 与其他汽车服务的区别

Carsharing – 汽车共享

- ▶ Serial sharing
系列共享
- ▶ Carsharer share cars
汽车共享者共享汽车



Carpooling – 拼车

- ▶ Parallel sharing
并行共享
- ▶ Carpooler share rides
汽车合乘者共享车程

Carsharing – 汽车共享

- ▶ Rent by minute/hour
可按分钟/小时租赁
- ▶ Decentralized distribution
分散型多网点
- ▶ 24/7 Self-service access
24小时自主使用
- ▶ One membership contract
一次注册，终身会员制



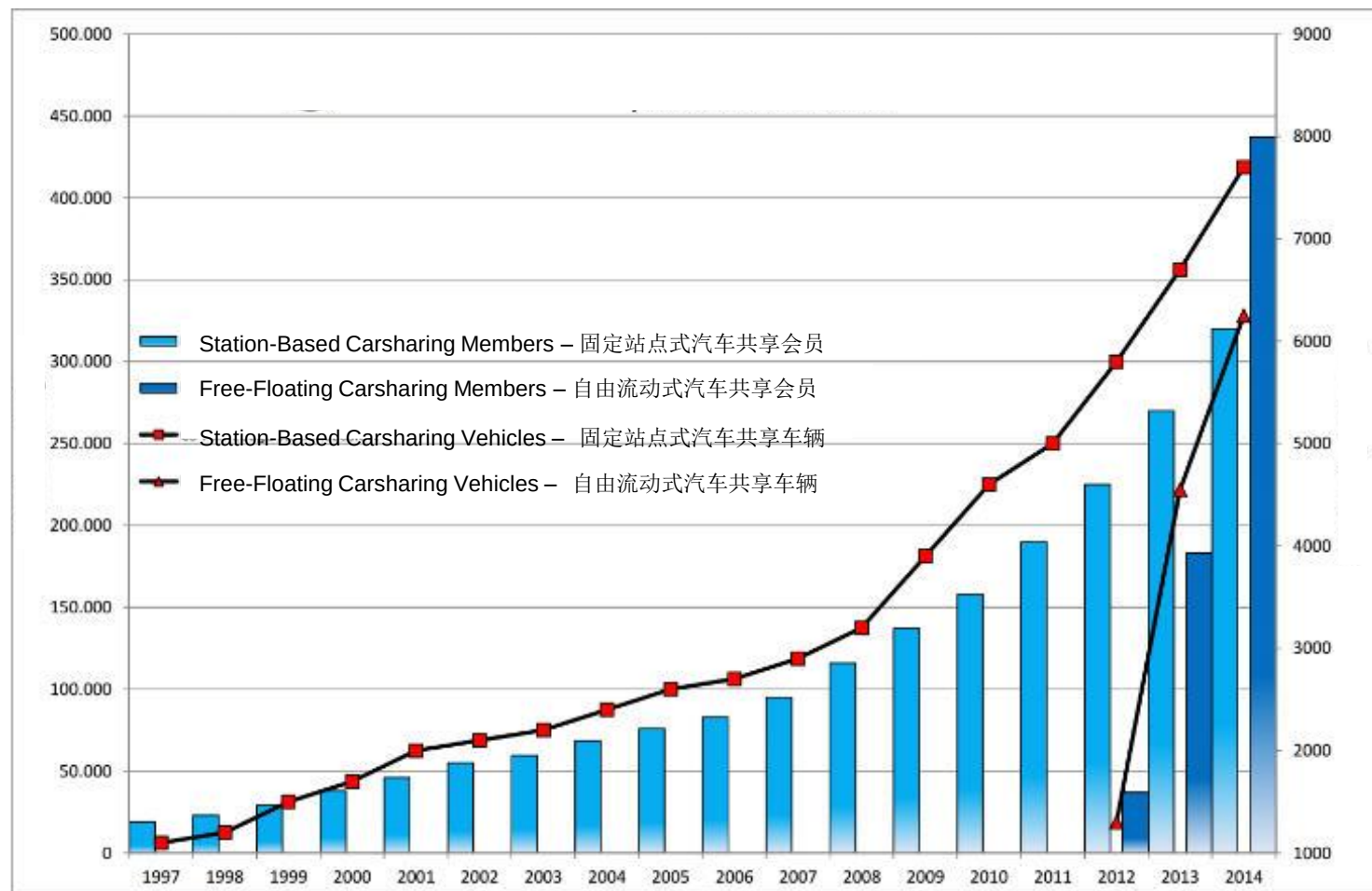
Car Rental – 汽车租赁

- ▶ Rent by day
按天租赁
- ▶ Centralized collection
聚集型单网点
- ▶ Limited access (business hours)
使用时间有限（仅限于租赁公司营业时间）
- ▶ Multiple rental contracts
每次租车需单独签协议制



Carsharing Development in Germany

汽车共享在德国的发展





Carsharing Development in Germany

汽车共享在德国的发展

January 2014 2014 年1月	Station-Based Carsharing 固定站点汽车共享模式	Free-Floating Carsharing 自由流动式汽车共享
Carsharing Members 汽车共享会员	320.000	437.000
Carsharing Vehicles 汽车共享车辆	7.700	6.250
Carsharing Stations 汽车共享站点	3.900	-
Cities with carsharing services 拥有汽车共享服务的城市数量	380	14

Bundesverband Carsharing (bcs)

- More than 33 million citizens have access to carsharing services in Germany
在德国超过3300万居民使用汽车共享服务



Carsharing Benefits – 汽车共享的益处

Customers – 客户

- ▶ Shift from fixed costs to variable costs
从固定成本转化为可变成本
- ▶ Cost savings below ~10.000 km annual mileage
当客户的机动车行驶里程小于1万公里/年，汽车共享模式将更为经济
- ▶ Access to different vehicle types for different mobility needs
可根据不同出行需求，使用不同汽车类型
- ▶ Avoiding to insure, maintain (and park) a vehicle
无需对汽车保险、保养(以及停车)的投入

Transport and Environment – 交通及环境

- ▶ Carsharing contributes to a reduction of private car ownership and VKT
汽车共享降低了私家车拥有量以及机动车总行驶里程

→ Impact on traffic volume, parking, space consumption and critical air pollutants
对交通流量、停车、空间消耗和空气污染物的影响
- ▶ Positive impact > Negative impact
积极影响 > 消极影响



Carsharing Benefits – 汽车共享的益处

Carsharing Impact on Car Ownership and VKT 汽车共享对小汽车保有量和机动车总行驶里程产生的影响	Europe 欧洲	North America 北美
Number of vehicles replaced due to one carsharing vehicle 每辆共享汽车所能替代的私家车数量	4 – 11	6 – 23
Percent of participants who sold private vehicle after joining carsharing 加入汽车共享后，选择将私家车出售的用户比例	16 – 34 %	11 – 23 %
Percent of participants who postponed or avoided vehicle purchase due to carsharing 加入汽车共享后，推迟或取消购车计划的用户比例	23 – 26 %	12 – 68 %
Percent of vehicle kilometers reduced due to carsharing 机动车行驶里程下降幅度	28 – 45 %	8 – 80 %



Carsharing Does Not Work on Its Own!

汽车共享需要各方支持

- ▶ Carsharing can only work in combination with public and non-motorized transport
汽车共享必须与公共交通和非机动车出行结合

- ▶ Carsharing users tend to shift their mobility behavior towards PT and NMT
汽车共享会员通常会倾向于改变其出行行为，采用公共交通和非机动车出行



- ▶ Carsharing facilitates a lifestyle without car ownership and rationalizes the understanding of mobility
汽车共享催生不以拥有机动车为目标的生活方式，并使人们产生对交通出行的理性思考

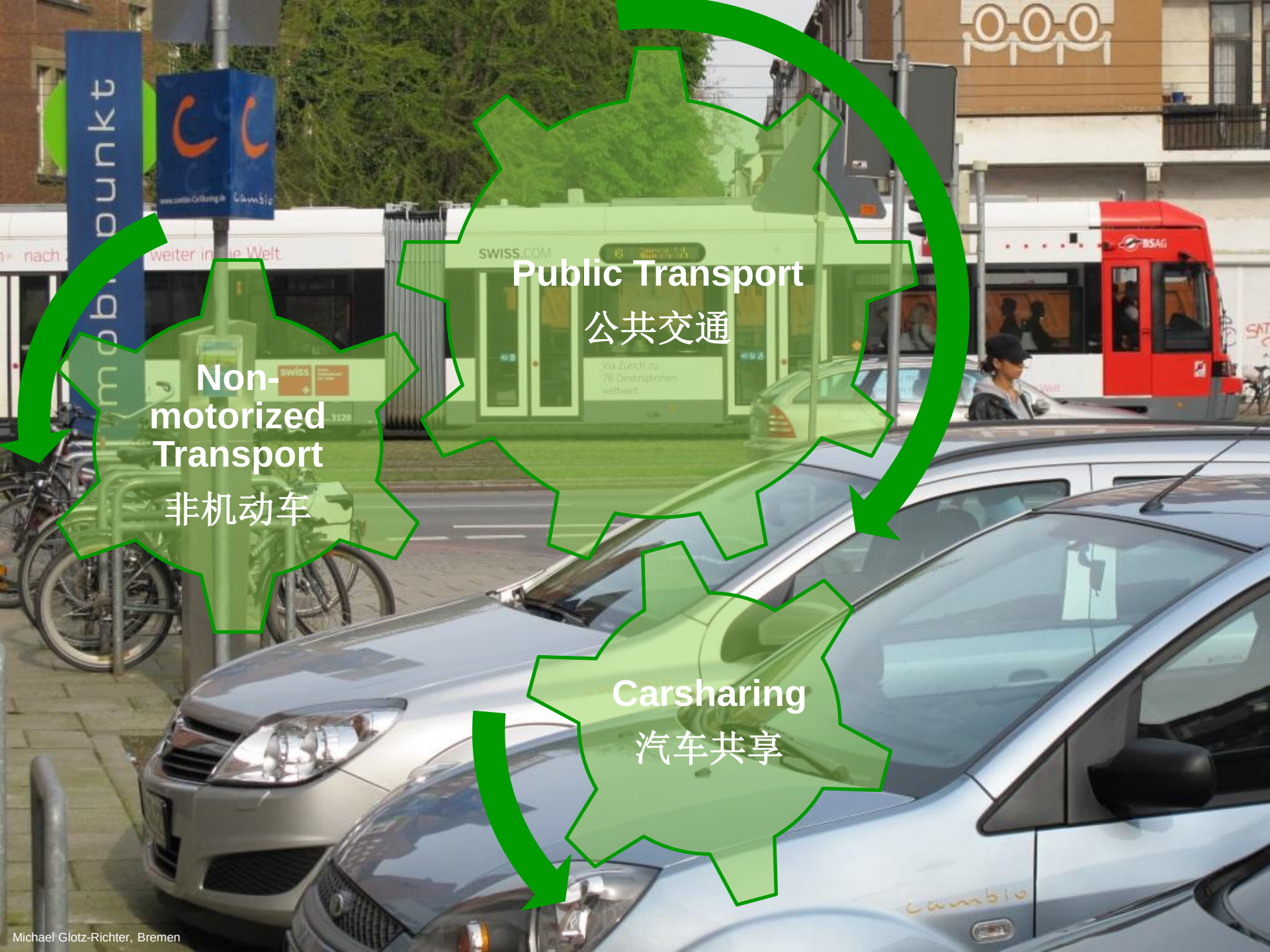


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Non-motorized Transport
非机动车

Public Transport
公共交通

Carsharing
汽车共享



Fruitful Conditions for Carsharing Systems

汽车共享需具备的成熟条件

- ▶ High total cost of car ownership
高额的车辆购置费用
- ▶ Well-developed public and non-motorized transport system
成熟的公共交通和非机动车交通系统
- ▶ High utilization of public and non-motorized transport modes
高比例绿色出行方式（地铁，公交，自行车，步行）
- ▶ Densely populated urban areas (with high demand for parking)
城市人口密度过高（停车需求较大）
- ▶ Endorsement and support from governmental authorities
政府的大力支持





Carsharing Related Policy Fields 汽车共享相关政策

▶▶ Parking management

停车管理措施



▶▶ Regulations and restrictions on individual transport

对私家车的限制和管理



▶▶ Business licensing

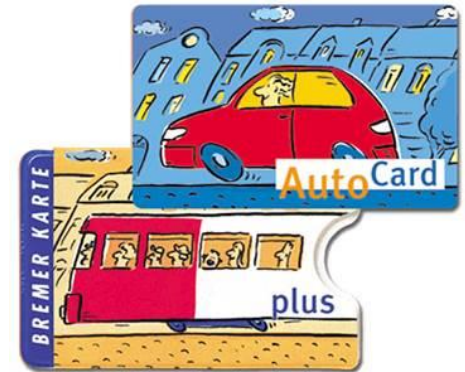
公司经营执照





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 system
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



Michael Glotz-Richter, Bremen



Governmental Support for Carsharing – Good Practice

汽车共享需要的政府支持 – 优秀案例

▶▶ Bremen, Germany – “Carsharing Action Plan”

德国城市不莱梅 – “汽车共享行动计划”

- ▶▶ 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
- ▶▶ Carsharing operators can rent public parking spaces to set up carsharing stations
汽车共享运营商租用公共停车位并以此建立了汽车共享站点
- ▶▶ Carsharing membership included in the public transport seasons ticket
汽车共享会员可使用公共交通季票
- ▶▶ Carsharing campaigns (print and digital media, cinema advertising, EXPO2010)
汽车共享活动宣传（通过报纸，数字等媒体，影院宣传，2010年世博会）
- ▶▶ Local authorities use carsharing instead of corporate fleets
当地政府机关使用汽车共享出行，取代公车出行



E-Carsharing – A Driver for Electro-Mobility in China?

电动汽车共享 - 中国电动汽车产业的驱动力？

- ▶ Carsharing does not need electro-mobility – Electro-mobility needs carsharing
汽车共享并不依赖电动汽车，电动汽车需要汽车共享
- ▶ Carsharing overcomes TCO, limited range and charging time of electric vehicles
通过汽车共享，可克服电动汽车使用成本，续航里程和充电时间方面的问题
- ▶ Electro-mobility does not impact on congestion, parking demand and space consumption
电动汽车对拥堵，停车需求以及空间浪费不会带来影响
- ▶ Higher level of financial and operational barriers
for carsharing providers
汽车共享公司的资金及运营门槛高
- ▶ Can E-Carsharing meet the full range of
its users' mobility needs?
电动汽车共享可以满足用户的所有出行需求吗？



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GIZ 汽车共享领域的项目活动



» GIZ组织，交通运输部带领的汽车共享欧洲（德国，荷兰）考察行（2013年8月）



» 低碳领导力论坛活动框架下的汽车共享讨论会（2013年11月）



» 不莱梅市建交委可持续交通处处长 Michael Glotz-Richter 先生在欧盟 - 中国城市发展展会上介绍汽车共享（2013年11月）



» 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）



» 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）



Follow-up Activities and Next Steps for 2014

后续活动以及2014年下一步计划

▶▶ GIZ Publication on Carsharing in China GIZ关于中国汽车共享的出版物

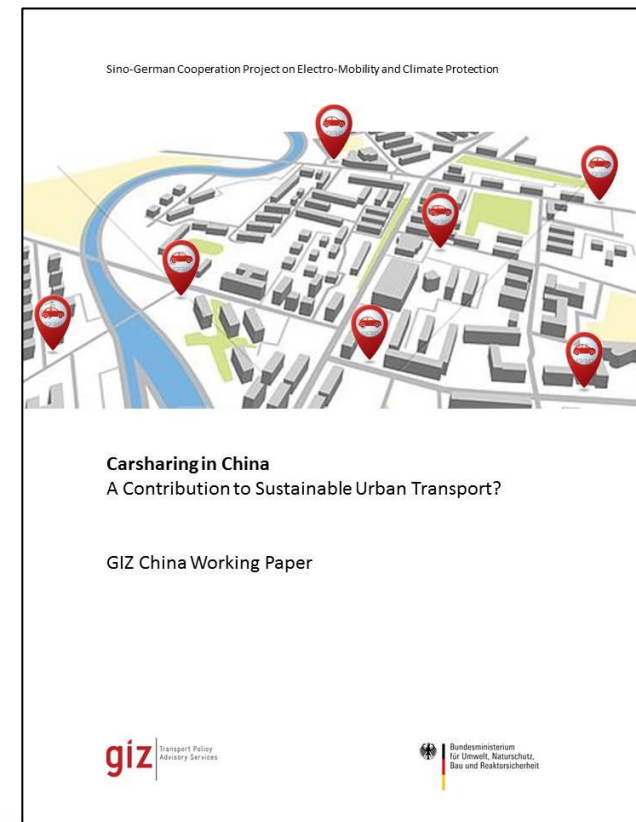
▶▶ Working paper on carsharing in China
中国汽车共享系统工作报告

▶▶ Publication available in Fall 2014
出版物预计2014年秋定稿

▶▶ Download at:
可从如下网页下载:

www.electro-mobility.cn

www.sustainabletransport.org





谢谢！ Thank you very much for your attention!

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