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Sino-German Cooperation on E-Mobility: Opportunities, Challenges and Bottlenecks

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Beijing, April 16, 2014





Sino-German Cooperation on E-Mobility:

1. Activities of the German Government
2. Background and Motivation
3. Bilateral Cooperation on the Governmental Level
4. Challenges in China
5. Sino-German Electric Vehicle Charging Project





1. Activities of the German Government

The National Electric Mobility Platform



In May 2010 the National Platform for Electric Mobility (NPE) was established by Federal Chancellor Angela Merkel at the Electric Mobility Summit

The NPE consists of eight working groups made up of top-level experts from national government, industry, trade unions, consumer groups and academia et al.

Four thematic areas: Vehicle Technology; Energy & Environment; Charging Infrastructure and Urban Planning & Intermodality



Pilot and Demonstration Projects in Germany: The Four Showcase Regions for Electric Mobility

Since 2009, the Federal Government is promoting eight Model Regions for Electric Mobility. In addition, the Federal Government created four Showcase Regions for Electric Mobility in 2012:

- LivingLab BWe mobil (Baden-Württemberg)
- ELECTRIC MOBILITY CONNECTS (Bavaria-Saxony)
- International Showcase Electromobility (Berlin-Brandenburg)
- Our horsepower becomes electrice (Niedersachsen)





2. Background and Motivation

- Both, Germany and China, strive for becoming a **lead market** and a **lead supplier** for Electro-Mobility in the future
 - **Germany:** 1 mio. EVs in 2020
 - **China:** 0,5 mio. EVs in 2015; 5 mio. EVs in 2020
- Both countries consider Electro-Mobility as a **key** for an **environmental sustainable mobility** in the future and for the necessary **transition of the automotive industry**
- Against this background the **bilateral strategic cooperation on Electro-Mobility** is valued as a unique opportunity to learn from each other to overcome the challenges and create sustainable mobility solutions and foster innovations and industrial developments.



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Sino – German Strategic Partnership Electromobility

Announced by Chancellor Merkel and Prime Minister Wen during the 1st Sino – German Governmental Consultations in Berlin, June 2011.





3. Bilateral Cooperation on the Governmental Level

Strategic Partnership Electromobility
(Partner G: BMVI, BMWi, BMUB, BMBF)
(Partner CN: MIIT, MoST, NDRC, MoF, AQSIQ)

BMVI	BMWi	BMUB	BMBF
Cooperation on Model Regions Partner: MoST	Industrialisation Partner: MIIT	Climate and Environment Partner: MoST	„Elektroautozentrum “ Partner: MoST
Dialogue on Safety Standards and Registration Partner: MIIT	Certification Partner: AQSIQ/CNCA	Battery Recycling Partner: NDRC	
	Standardisation and Norms Partner: SAC	Fuel Economy Partner: MIIT	

Sino-German Electric Vehicle Charging Project

Supported by the German Government, driven by Industry

Partner: NDRC, CATARC, Tsinghua University, Beijing
Municipality



4. Challenges in China

▪Charging infrastructure development

- Process of Installation
- 40% of potential customers in BJ were unable to have a charging device installed (China Daily, March 2014)

▪Harmonization of standards and regulations

- Plugs/Interfaces
- Standards for Fast- and Slow-Charging (AC/DC)

▪Protectionism and market access barriers

- Imported EVs have no chance to get incentives from central or local governments
- Main problem in Beijing: Imported EVs are not allowed to be registered as an EV, they have to apply for normal licenses and they have to participate in the lottery for combustion engine vehicles



5. Sino-German Electric Vehicle Charging Project

Key questions

Customer requirements?



Policy & regulation gaps?



Technical standards?



Sustainable business model?



Grid implications?



Infrastructure supply?



Installation process?











**Sino –
German EV
charging
project**



Sino-German Electric Vehicle Charging Project



Scientific Partners	Political Partners	Political Coordination	OEMs
Tsinghua University  <ul style="list-style-type: none"> • Support development of installation standards • Steering the relationship to PMO via PMA 	German Ministries <ul style="list-style-type: none"> -BMW (lead coordinator) -BMVI -BMUB -BMBF 	GIZ  <ul style="list-style-type: none"> • Overall political coordination towards German authorities 	Local OEMs 
 Spiegel Institute <ul style="list-style-type: none"> • Overall coordination of scientific package • Conducting customer study 	Chinese Ministries <ul style="list-style-type: none"> -NDRC (lead coordinator) -MIIT -MoST 	CATARC Beijing  <ul style="list-style-type: none"> • Overall political coordination towards Chinese authorities • Conducting study on business models for private and public charging and installation process 	International OEMs 
  Fraunhofer Institute/ Beijing State Grid <ul style="list-style-type: none"> • Conducting the study on grid implications • Consultants for all grid and energy related questions 	Beijing Authorities <ul style="list-style-type: none"> -BCST -BMCHUD -BDRC 		



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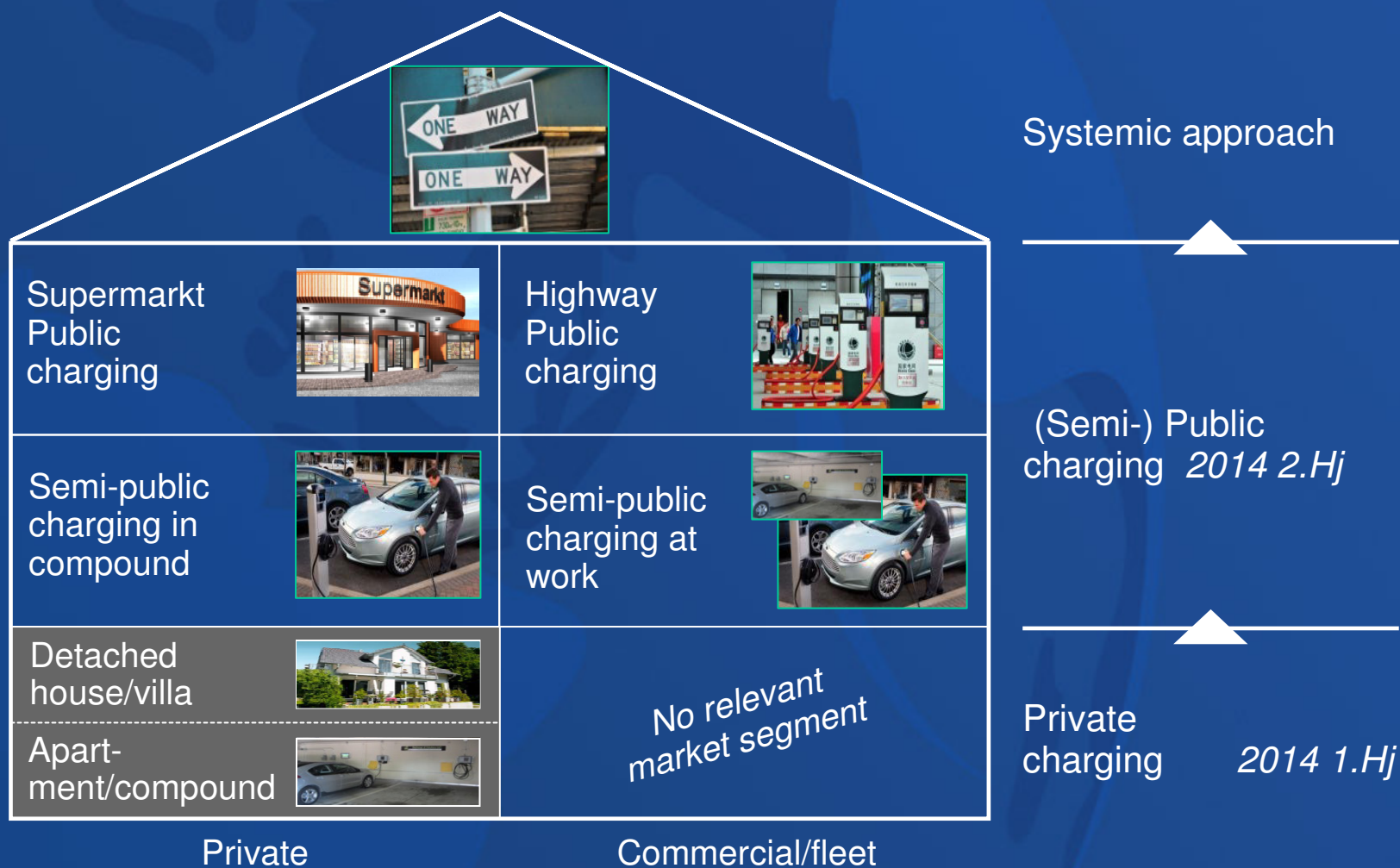
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Sino-German Electric Vehicle Charging Project



The project will be structured into 3 main phases





Sino-German Electric Vehicle Charging Project

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谢谢！ Thank you very much for your attention!