Towards Market Leadership – Electric Mobility in Germany

evs27, Barcelona, November 19, 2013

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Director Investor Consulting
Germany Trade & Invest
About Germany Trade & Invest

Who we are

_Germany Trade & Invest (GTAI)_...  

- is the foreign trade and inward investment promotion agency of the Federal Republic of Germany.
- is promoted by the German Federal Ministry of Economics and Technology.
- supports foreign companies to establish successful business operations in Germany.
- offers investment consultancy and project management services free of charge.
- works in close partnership with the 120 German Chambers of Commerce Abroad (AHKs) worldwide as well as all 16 German federal states.

...is your entry point into Germany’s growing E-Mobility value chain!
Germany’s E-Mobility Strategy - Overview

The German Government has initiated a National Electromobility Development Plan

Overall Objective: **1 million** EVs on the road by **2020** / **6 million** EVs by **2030**

Market Preparation 2014
Focus on R&D and pilot programs

Market Run-up 2017
Focus on establishing the market for vehicles and infrastructure

Mass Market 2020
Focus on implementing stable business models

**Federal Government**

**Industry**

**Academia**

National Electric Mobility Platform (since 2010)

**R&D Programs for Electric Mobility** (>€1bn public funding until 2015)
- 8 Selected model/pilot regions for e-mobility
- Flagship projects in six key fields of e-mobility
- Large variety of industrial players and research organizations involved in project consortia

**4 Showcase Regions in Germany** (€180m public funding until 2015)
- Introduction of e-mobility to broader public: experience and demand creation
- Large-scale demonstration and pilot projects
- Integration of energy, vehicle and transport

Source: BMWi, BMVBS, BMU, BMBF

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Germany’s E-Mobility Strategy – R&D Focus

A user-centric approach addresses the most relevant R&D topics for market preparation

**Flagship Project „e generation“:**
Extend range of EVs by 40%
(15 partners, coordinated by Porsche)

**Flagship Project „SafeBatt“**:
More reliable Li-ion batteries and a „digital battery passport“.
(15 partners, coordinated by Infineon)

**Drive Technology**
- Electric Motor
- Drive System
- Power Electronics
- Manufacturing Technology

**ICT & Infrastructure**
- Charging Technology
- Power Grid Integration
- ICT/ Energy System Interface
- ICT/ Transport System Interface
- Renewable Energy Generation

**Vehicle Integration**
- BEV
- PHEV
- REEV
- Commercial Vehicles
- Energy Management

**Battery**
- Materials and Cell Development
- Innovative Battery Concepts
- Safety
- Modeling and Analysis
- Process Technology

**Lightweight Design**
- Materials and Components
- Lightweight Structures
- Multi-Material Design
- Systemic Lightweight Design
- Manufacturing Processes

**Recycling**
- Drive Components
- Battery Materials


Source: NPE

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www.gtai.com
All German OEMs are launching serial production of HEVs/EVs

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<tr>
<th>OEM</th>
<th>Model</th>
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Source: GTAI research, November 2013
Electric Mobility becomes a reality in Germany’s four showcase regions

- **Living Lab BW Electric Mobility**
  (Baden-Wuerttemberg)

- **Electric Mobility Connects**
  (Bavaria/Saxony)

- **International Showcase E-Mobility**
  (Berlin/Brandenburg)

- **We’re Switching to Electric Horsepower**
  (Lower Saxony)