



Sustainable Mobility for Berlin – Green.Smart.Digital

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Vision for 2020

Berlin-Brandenburg is an internationally recognized model for electromobility.

Core Objectives

- 1) Increase regional economic power by generating further added value, securing job and creating new jobs
- 2) Support the region's transport, energy, climate, and environmental policy goals in order to improve the quality of the environment and of life

Strategy

“Action Plan for Electromobility 2020” published 2011 and updated 2014



Berlin-Brandenburg region

- 3.200 electric vehicles (thereof more than 450 used for e-carsharing)
- 770 publicly accessible charging points (thereof 30 fast charging points)
- 5 hydrogen fuelling stations

...and in Germany

- 55.000 electric vehicles
- 5.830 publicly accessible charging points (thereof 125 fast charging points)
- 16 hydrogen fuelling stations



- Berlin Agency for Electromobility eMO - the key element to foster electromobility in the region
- A neutral platform and initial point of contact for the topic
- Works closely with its partners to pool and integrate the expertise of the industry, research institutions and government/public administration in the German capital

Agency of the State:

Senatsverwaltung
für Wirtschaft, Technologie
und Forschung

**Aegis:****Premium-Partner:**



NIEDERLASSUNG
BERLIN

NISSAN zero Emission

POTSDAMER PLATZ
BERLIN

VORWEG GEHEN



SIEMENS



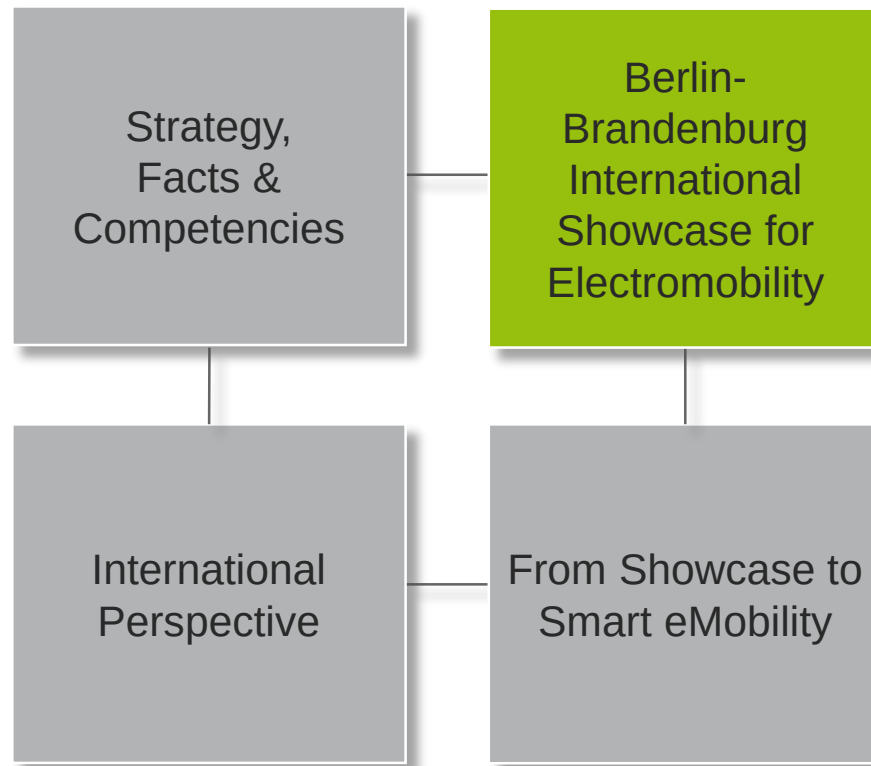
VATTENFALL



Volkswagen Automobile Berlin







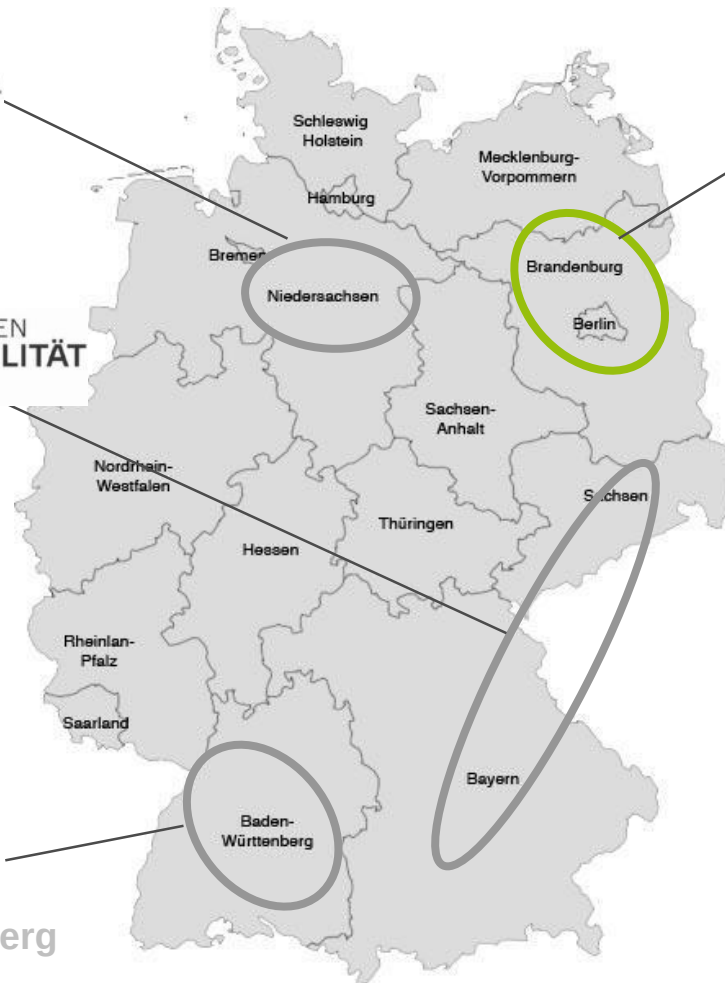
Berlin-Brandenburg International Showcase for Electromobility



eMobilität
in Niedersachsen.
Lower Saxony

BAYERN – SACHSEN
ELEKTROMOBILITÄT
VERBINDET
Bavaria & Saxony

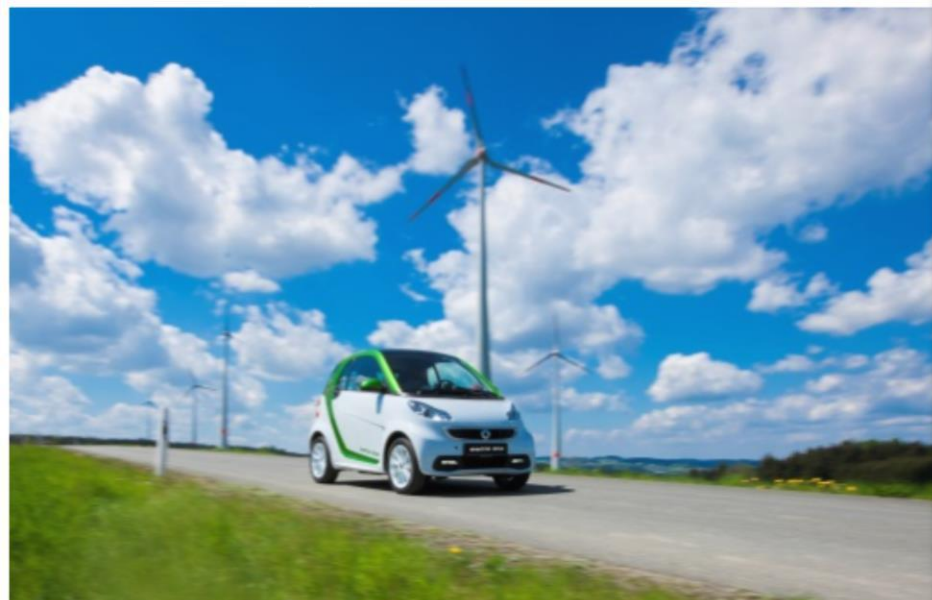
livinglab
BW^e mobil
Baden-Württemberg



Berlin-Brandenburg

- **Duration:** 2013 – 2016
- **Project Volume:** about 83 Mio. €
- **Project Partners:** more than 100 partners from business science, politics and administration
- **Core Projects:** about 30

Funding	Total
Self-Funding of Private Companies	31 Mio. €
Federal government	36 Mio. €
States of Berlin and Brandenburg	16 Mio. €



Field of activity: Energy and charging infrastructure



Findings and experiences:

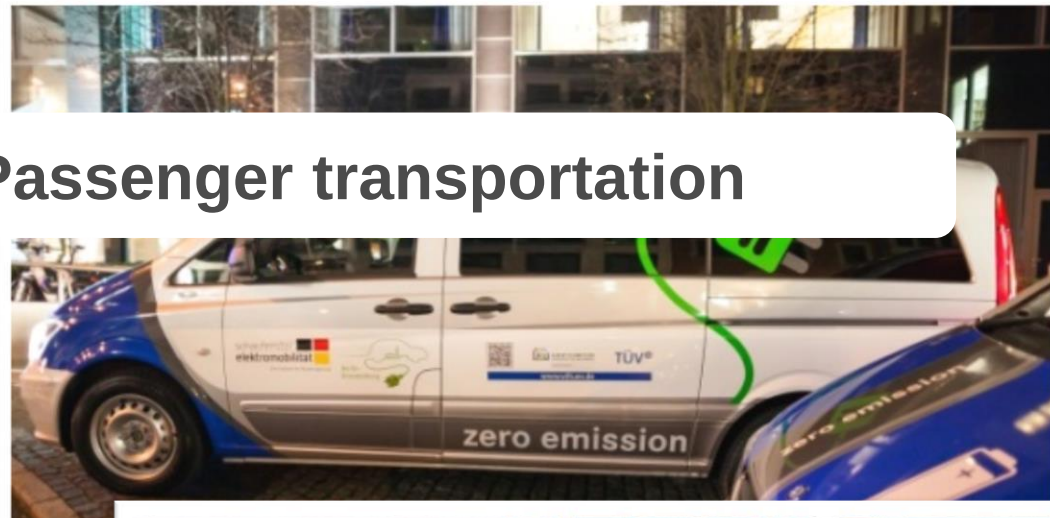


- „Landscape“ of the charging infrastructure: Very heterogenous, less user friendly
 - Processes and standards: Lack of interoperability
 - No proven business models for public charging infrastructure and for smart grids
 - Vehicles available on the market do not support „controlled charging“ and vehicle-to-grid functionalities
-
- *Accelerated implementation and simplification of the regulatory framework is necessary*
 - *Still RTD demand for smart grid (integration of renewable energy, bidirectional charging concepts still considerable)*
 - *RTD demand for inductive charging*





Field of activity: Passenger transportation



Findings and experiences:



- Total cost of ownership for electric cars still not competitive; even for commercial fleets; financial incentives still lower than for conventional vehicles
 - Spectrum of vehicles for different user groups still very limited (i. e. for craftsmen, commercial vehicles in general)
 - Additional costs for electric carsharing compared to conventional vehicles (vehicle costs, charging logistics)
 - Cost effectiveness of standard e-bus for urban transport not yet foreseeable
 - Public awareness: Still too much doubts about suitability for day-to-day use (lack of knowledge, driving range, charging)
- *Incentives for purchasing electric vehicles for specific user groups (e.g. trade, taxi, carsharing, busses, public authority) to be introduced*
- *Improve and expand public relations (campaigns)*





Field of activity: Freight transportation and logistics

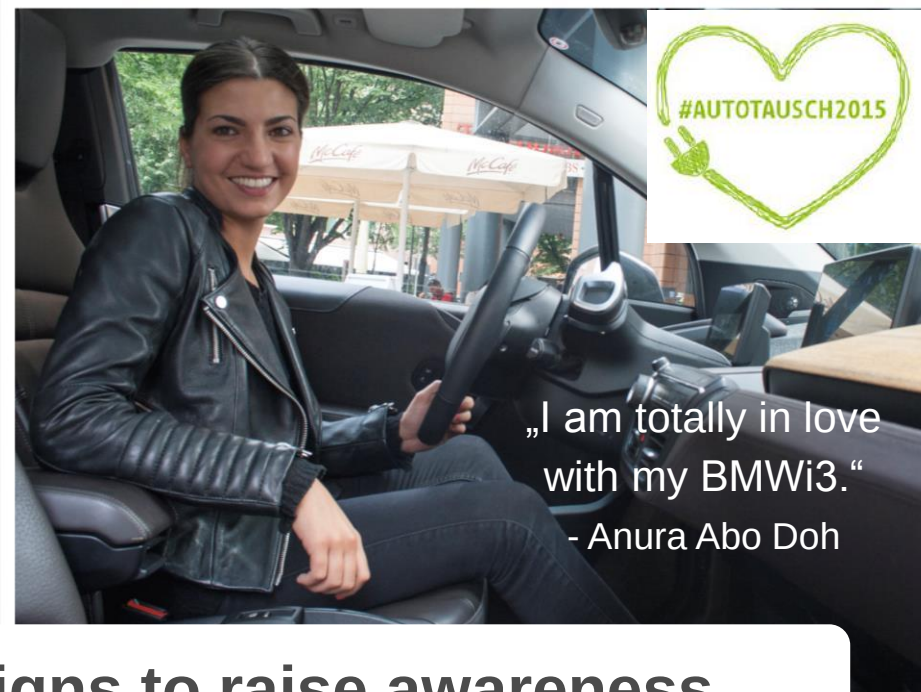


Findings and experiences:



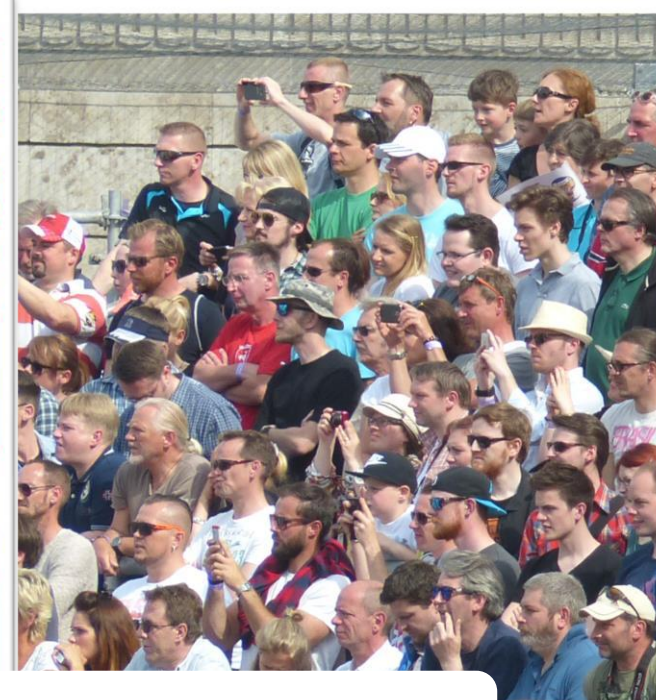
- Almost no availability of electric commercial vehicles in mass-production > 3.5 t
 - Total cost of ownership: clear disadvantageous with electric vehicles (in particular when considering high cost sensitivity in the logistics sector)
 - Capacity of batteries for commercial vehicles currently too limited
 - Very high battery costs
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- *Implement incentives/ advantages for electric commercial vehicles (e.g. tax advantages; user benefits in urban areas compliant with low noise, zero emission characteristics)*
 - *Comprehensive R&D demand still in all relevant fields (vehicle, battery, charging infrastructure, operational concepts)*





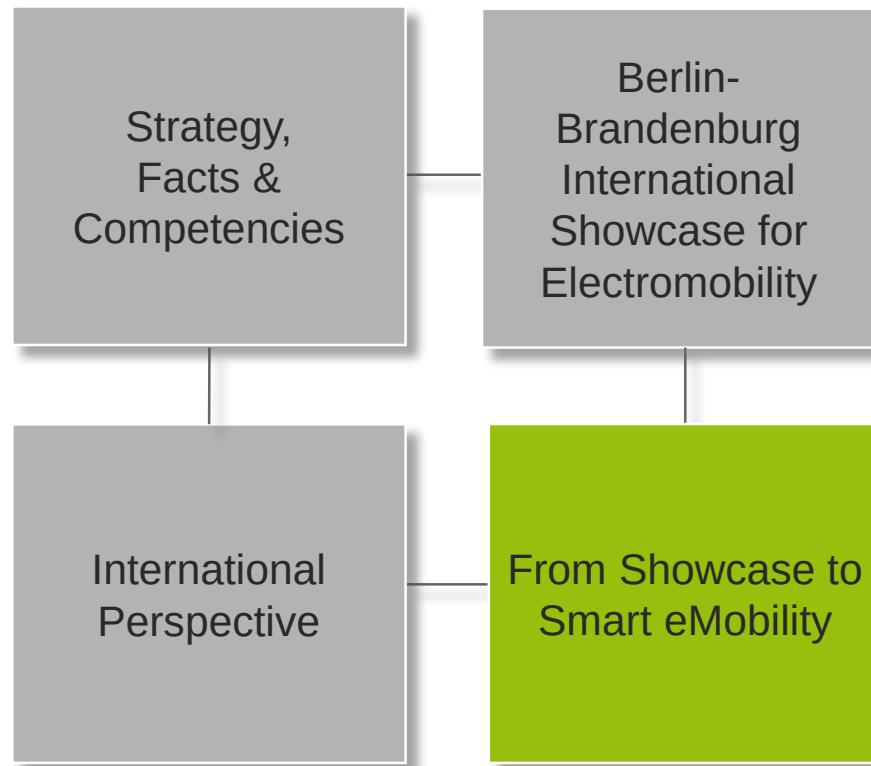
Communication campaigns to raise awareness

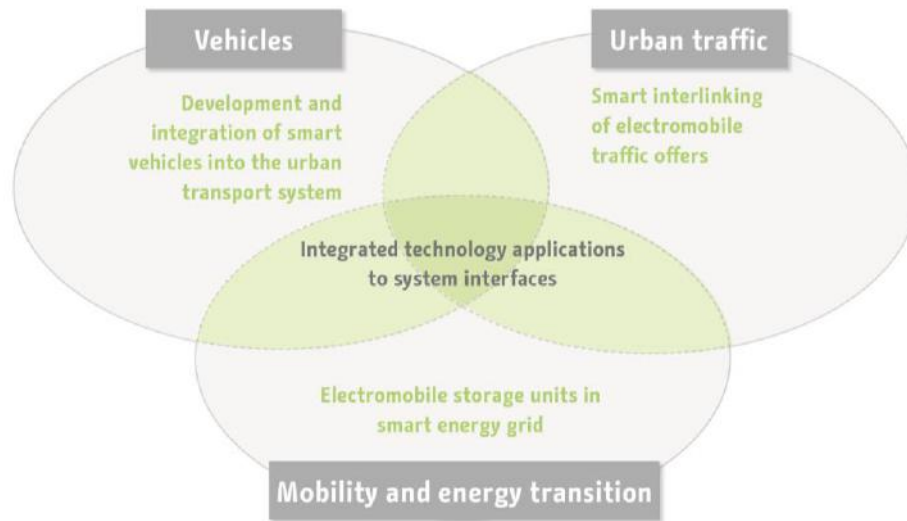




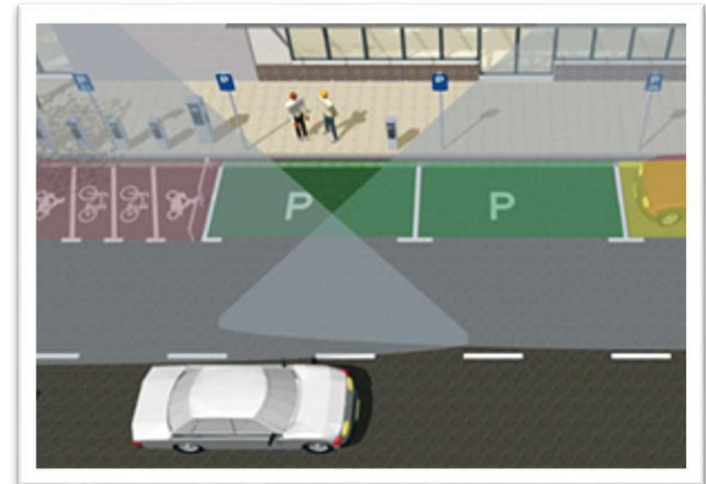
FIA Formula E race in 2015 and 2016

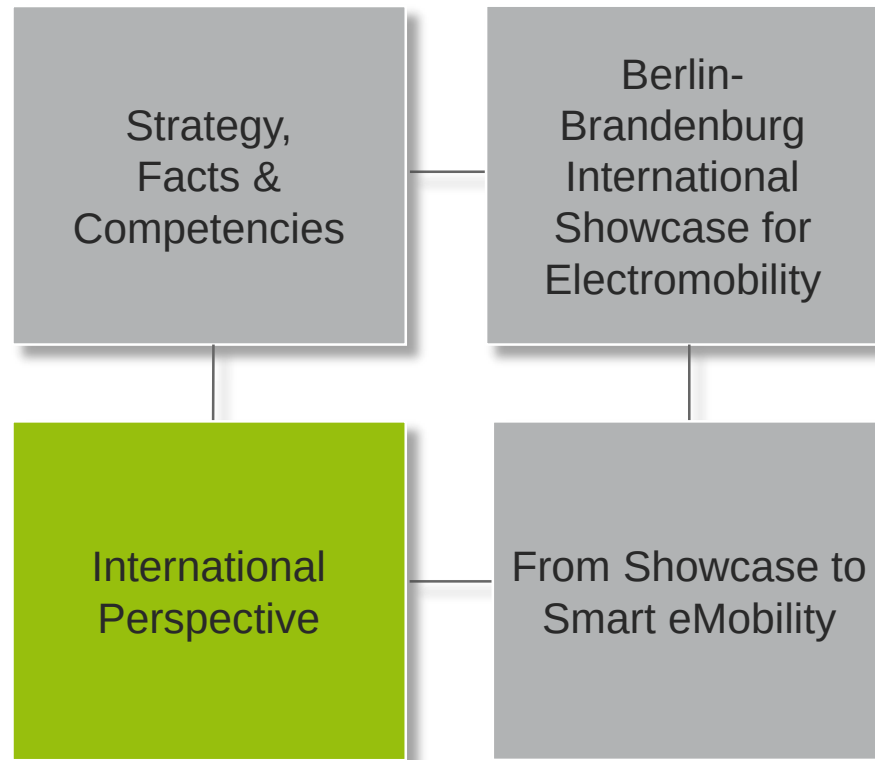






- Potentials for heavy duty vehicles & buses
- New logistics concepts and last-mile logistics
- Autonomous driving and parking in urban environments
- Electric vehicles and smart grids
- Connected mobility and intermodality











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