Funding Activities and Strategy of the BMBF for Electric Mobility

VDI/VDE Innovation + Technik GmbH
Project Agency for Electronic Systems and Electromobility

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Funding Priorities of the BMBF
Regarding Electromobility – Status and Strategy

More than 50 % of government’s total funding supplied by the BMBF:

• Battery research, since 2007
  from electrochemistry to battery production

• Energy efficiency, since 2008
  energy and thermal management of the vehicle as a whole, lightweight design, power electronics

• Promotion of young professionals, training and continuing education, since 2009
  i. a. student competition DRIVE-E, National Education Conference on Electromobility in Ulm

• Specific promotion of small and medium enterprises (SMEs), since 2009
  in particular also in the field of electric mobility
The *Cluster Electric Mobility South-West*

Partners from:
- Automotive engineering
- Energy and supply engineering
- ICT and corresponding services
- Cross-section field *production technology*

Until 2017:
- Two funding phases
- 40 million EUR grants

80 players:
- Industry – i. a. Bosch, Daimler, EnBW, Porsche, SAP and more than 20 SMEs
- Universities and research institutes
Showcase Electric Mobility
for higher visibility

Training and continuing education (academic and technical) promoted by BMBF in the Showcase projects

Project NQuE:

- Accompanying research of educational projects
- Study of education and qualification resulting in recommendations

► Transparency as an objective: making existing structures and interconnections visible

National conference on education in electric mobility from 23.–24.02.2015 in Berlin

Further development of the competence roadmap of the NPE (National Platform Electric Mobility)

Presentation of educational projects from the Showcase programme

Excellent and highly motivated professionals are the basis for Germany to become a leading supplier for electric mobility
Generating Innovations – Creating Networks

New opportunities for suppliers

National funding calls; i. a.:

- **Key enabling technologies for electric mobility – STROM:**
  
  Research on innovative electric vehicle, incl. subsystems
  
  2011–2014
  
  ca. **120 million EUR**

- **STROM2:**
  
  Energy and thermal management, range optimisation, safety concepts.
  
  Grants: **19 million EUR**
  
  8 consortia, **14 SMEs**
  
  2012–2016
Generating Innovations – Creating Networks
New opportunities for suppliers

- Drive train: 41%
- Battery technology: 32%
- Lightweight design/producr.: 11%
- Others: 6%
- Thermal management: 1%
- Recycling: 8%
- OEM: 32%
- Suppliers: 7.7%
- Research institutes: 15.5%
- Others: 29.4%
- Others: 41.4%

• Upcoming Call e-MOBILIZE, formerly known as “STROM3”
Details on following slides
Funding initiative *Innovative SMEs ("KMU-innovativ")*

Objectives:

- Making access to **research funding for SMEs** remarkably easier
- Motivating in particular young and **researching SMEs**
- Reaching "**funding newbies**"
- Supporting ambitious research projects

4 key subjects:

- Software systems and information technologies
- Communication systems and IT safety
- Man-Machine-Interaction for the demographic change
- Electronic and **microsystems**, **electric mobility** and design automatisation

**Technologies**

- Biotechnology
- Ressource and energy efficiency
- Medical engineering
- Production technologies
- Nanotechnology
- Information and communication technologies
Funding in the European context

Funding of research projects with **sustainable economic benefit for Germany and Europe**; > 30 million EUR p. a.

- **ENIAC**: PPP; research and pre-competitive development projects in ICT;
- **CATRENE**: focus on nanoelectronics; until end of 2015;
- **ECSEL** (comprising ENIAC, Artemis und EPoSS)
Objectives of the BMBF’s funding of research on electric mobility

The BMBF is funding innovations to strengthen Germany’s technological top-ranking position, ensuring competitiveness and increasing the attractiveness of Germany as an industrial location.

- safeguarding and extending employment
- ensuring competitiveness
- increasing the value added

SMEs: important promoters of innovation

SMEs: quick and flexible

SMEs: able to transfer research results into applications and products particularly fast
Upcoming Funding Call “e-MOBILIZE”

BMBF call for funding research and development of **safe and efficient mobility**.

Focus on **electronic systems** or **innovative solutions based on electronic systems**, aiming at **lowering energy consumption** and **increasing the driving range**.

Funding of **collaborative projects**, focusing on significant increase of **efficiency of components**, **cars** and automotive **traffic services**.
Electronic Systems for Electric Mobility

• Increasing efficiency of drive train

• Increasing efficiency of energy storage systems

• Optimisation of a vehicle’s energy management (mechanical, thermal, electrical)

• Viewing the vehicle as a whole
Automation for Efficient Electric Driving

- Vehicle components
- Information processing
- Vehicle as a whole
Funding Call e-MOBILIZE: Key Parameters

Time frame:

• Call expected in October 2014

• Publication online in the Bundesanzeiger

• Proposal deadline: 31 January 2015

Restrictions:

• Collaborative projects only

• Integration of SMEs strongly suggested

• Pre-competitive research only
Your Contact Persons

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Thank you for your attention