



European Green Car Initiative Electric Vehicle

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European Commission
Information Society and Media

The European Green Car Initiative

The background in DG INFSO

- Support to research in technologies, components and systems required for “green cars” and “clean cars” (FP5, FP6, FP7), JTIs, Intelligent Car
- eSafety Forum Working Group on “ICTs for Clean and Efficient Mobility”: Final Report
- A common position paper on Electric Cars by the **EPoSS** and **ERTRAC** European Technology Platforms
- A Strategic Research Agenda and specific input from the **eSafety Forum RTD Working Group**

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The estimated research budget breakdown

Year	EC funding
2010	ca. 95
2011	ca. 115
2012	ca. 145
2013	ca. 145
Total	500

	Transport	NMP	Energy	Envir.	ICT
Total (M€)	ca.220	ca.60	ca.75	ca.25	ca.120
%	44%	12%	15%	5%	24%

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DGs INFSO, RTD and TREN: Fully Electric Vehicle

Three DGs to focus on **road electrification** in a coordinated manner.

Five key areas for research focus:

- Energy storage systems
- Drive trains
- Vehicle integration
- Infrastructure integration
- Integration with the transport system

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The INFSO Proposed Contribution: Electric Car

- DG INFSO is proposing to focus its contribution to the Green Car Initiative on the development of technologies, components and systems for the ICT part of **fully Electric Vehicle, including the necessary infrastructure**.
- Funding possible already in Call 4 (objectives 3.9 and 6.1b); in a specific objective in Call 5 (tbc) and in WP 2011-2013.
- EV is additional objective – existing activities will continue ‘business as usual’.



DG INFSO – WP2009-2010 Calls relevant for Electric Vehicle

- **ICT Call 4** – published 19 November 2008, deadline 1 April 2009 17.00 hrs
 - **Challenge 6.1b**: ICT for Clean and efficient mobility
 - No specific focus on electric vehicle, but projects developing “...new tools, systems and services supporting energy-efficient driving based on on-board systems and/or co-operative infrastructure and energy-optimised, adaptive traffic control and management technologies...” could be funded
- **ICT Call 5** – provisional dates of publication 31 July 2009 and closing 3 November 2009
 - **Challenge 3.9c**: Application-specific microsystems and smart miniaturised systems i.e. for Transport, safety and security:
 - “... with particular emphasis on smart systems for the full electric vehicle...”

DG INFSO – WP2009-2010 specific objective for FEV

**The Commission proposes specific objective in
Call 5 for FEV (tbc).**

Potential research topics:

- 1) Overall efficiency of EVs, including
 - electrical and thermal management,
 - energy efficient and lightweight electrified auxiliaries
- 2) Safety and robustness of components and systems
- 3) Fail-safe system and electrical architectures
- 4) Vehicle-to-infrastructure integration based on cooperative systems concepts, ADAS and active safety systems for Fully Electric Vehicles

DG INFSO – WP2010-2013

Proposed research topics for FEV

- Energy storage systems
 - Smart battery/energy management
- Drive Train
 - Power electronics
 - Active control units for electric motors and wheels
- Vehicle Integration
 - Development, control and cooperative interaction of energy efficient auxiliaries
 - Advanced concepts for electrical architecture of the car with models and solutions for electrical and thermal management
 - Safety and robustness of systems and components
- Infrastructure integration (with GRID, with transport system)
 - Advanced vehicle to grid interface, fast charging infras.
 - Co-operative systems, connected car to improve safety and efficiency, car-in-traffic control systems

Thank you
for your attention !