

# European Green Cars Initiative- the ICT call5

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# OUTLINE

- Context: recovery package
- European Green Cars Initiative (EGCI)
- Research in EGCI
- ICT research in EGCI : ICT for Fully Electric Vehicle
- EGCI research in 2010 : Opportunities in different themes
- ICT research for EGCI in 2010
- Updated information on website



# Context : the automotive sector

- a key industrial sector for Europe
- direct employment of over 2 million persons
- indirect employment of another 10 million persons
- one of largest RTD investors in the EU  
(over €20B/year, ca.5% of its turnover)
- sector in deep crisis today
- ensure recovery - long term survivability



# Context : the European Economic Recovery Plan

- *“To support innovation in manufacturing, construction and in the automobile sector, .... which face significant challenges in the transition to the **green economy**...”*
- 3 Public-Private Partnerships (PPPs) :
  - European energy efficient buildings initiative
  - Factories of the future initiative
  - **European green car initiative**



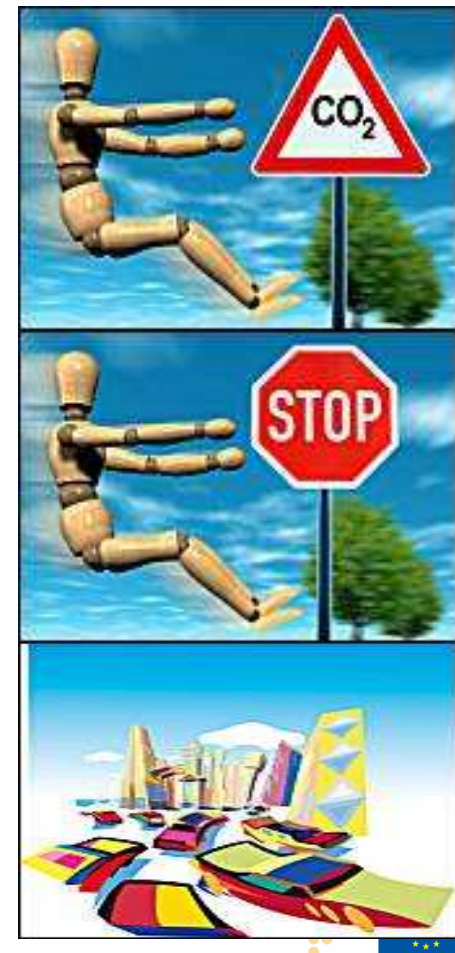
# European Green Cars Initiative: a package of €5 billion

- **Research** on greening road transport : €1 billion
- **EIB loans** in support of industrial innovation  
Budget: €4 billion (in addition to existing loans)
- Demand side measures : **regulatory** action by Member States and the EC on e.g. lower registration taxes, incentives for scrapping old cars, and public procurement



# European Green Cars Initiative: research & innovation

- The use of renewable & non-polluting energy sources
- Safety
- Traffic fluidity



# European Green Cars Initiative: What research?

## Scope

- Road vehicles: passenger cars, buses, urban vehicles, trucks
- Infrastructures: smart grid, distribution, recharging
- Optimisation of the overall transport system

## Research focus

- Heavy duty vehicles
- Electric and hybrid vehicles
- Logistics & co-modality



# European Green Cars Initiative: How will research be funded?

- Budget: €1 billion co-financed by the EC and the private sector (PPP)
- Implemented as a cross programme initiative:
  - 2010-2013
  - €500 million EC funding from NMP, ICT, Transport, Energy, Environment FP7 themes





# Public-Private Partnerships?

- EGCI is of public interest with industrial leadership (priority setting + road mapping)
- EGCI combines public and private money
- Today implemented through existing mechanisms of FP7



# European Green Cars Initiative: FP7 research funding

Year	EC funding
2010	ca. 105
2011	ca. 115
2012	ca. 140
2013	ca. 140
<b>Total</b>	<b>500</b>

	Transport	NMP	Energy	ENV	ICT
<b>Total (M€)</b>	<b>ca.220</b>	<b>ca.60</b>	<b>ca.75</b>	<b>ca.25</b>	<b>ca.120</b>
<b>%</b>	<b>44%</b>	<b>12%</b>	<b>15%</b>	<b>5%</b>	<b>24%</b>



# Electric and Hybrid Vehicles 2010-2013

## *Research areas*

- Power usage: electric car
- Power generation & smart grids
- Power distribution & recharging infrastructure

## *Research needs*

### Batteries

+autonomy, - weight, - cost,  
new chemistries & materials

### Electric motor

compact, T° & vibration  
permanent magnets

### Range extender

increased autonomy,  
compaction of batteries

### Advanced electric vehicle concepts:

New design of electric car  
safety, weight, ergonomics,  
aerodynamics)

### Advanced vehicle to grid Interface:

charges, metering, bidirectional  
routing,  
GPS telematics, new business models

# ICT focus: “Fully Electric Vehicle and its infrastructure ” 2010-2013

- ERTRAC (EUCAR+CLEPA), EPoSS, SMARTGRID
- Research areas and research needs :
  - \* energy storage
  - \* drive train
  - \* ***vehicle concepts and integration***
  - \* grid integration and interfaces
  - \* EV integration in transport system

ICT WP  
2010



Draft

# EGCI in WP2010: calls for €105 million open on July 31, 2009

1. **Joint call (NMP, Energy, Environment, Transport): € 25M  
on batteries**
2. **Transport theme : sustainable surface transport**  
by DG RTD with €40M on:  
electrical machines , integrated electric auxiliaries and on-board systems, optimised thermal engine development and integration, smart storage integration, advanced electric vehicle concepts, coordination action - awareness of job potential  
by DG TREN with €23M on:  
integrated EU demonstration project on electromobility
3. **ICT theme : ICT for the fully electric vehicle with €20M**

**FP7**  
**Green Car**  
**ICT theme**  
**call 5 : objective GC-ICT-2009-10.3**

- ✓ Call specification
- ✓ Topics
- ✓ Funding schemes



# Call Specifications

## Call 5 GC-ICT-2009-10.3

- **Expected date of publication:** 30 July 2009
- **Expected deadline:** 3 November 2009
- **Total indicative budget:** 20 M€
- **Funding schemes:**
  - **CP: Collaborative Projects : STREPS** ( 19M€)  
medium to large scale STREPS : ‘along the value chain’
  - **CSA: Coordination Support Action** (1M€)



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# EGCI in the ICT WP2010 update: Objective 10.3 “ICT for the Fully Electric Vehicle“

Call opening July 30, 2009 closing Nov 3, 2009  
funding €20 Million

## Objectives :

Optimisation at vehicle and system levels  
set requirements and standards for subsystems, components,  
communications and closed-loop control

## Impact:

- Increased overall power and energy efficiency of FEVs
- Strengthen global competitiveness of the European automobile sector, incl. components and systems suppliers
- European leadership in the move towards electrification of mobility and transport of goods and passengers





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# EGCI in the ICT WP2010 update: Objective 10.3 “ICT for the Fully Electric Vehicle“

Call opening July 31, 2009 closing Nov 3, 2009  
funding €20 Million

(a) Research priorities:

STREP

1. New solutions for overall efficiency gains in the electric vehicle :
  - (i) ict-solutions & models :electrical and thermal management
  - (ii) auxiliaries ( energy eff. & lightweight electrified)
  - (iii) closed-loop control & cooperative interactions of subsystems
  
2. Safe and robust sub-systems
  
3. Advanced fail-safe systems and electrical architectures, new concepts for vehicle-to-road infrastructure integration

(b) European “Fully Electric Vehicle” Coordination Action:

CSA

- European vision & roadmap “ICT for FEVs” - standardisation



# ICT-related calls and topics



## Microsystems and Smart Miniaturised Systems

(ICT-2009.3.9 in Call 5)

## ICT for Mobility of the Future

(ICT-2009.6.2 in Call 6)



**Green Cars  
initiative**



European Commission  
Information Society and Media



# Take a seat in the green car !

**Information Day on Research PPPs**  
**on 13 July 2009** in Brussels,  
in the **Charlemagne building**, rue de la Loi 170.



For **registration** <https://rpid09.regware.be>.

A preliminary agenda and more information about this **networking/brokerage** opportunity can be found at [http://ec.europa.eu/research/industrial\\_technologies/index\\_en.html](http://ec.europa.eu/research/industrial_technologies/index_en.html).



# *Thank you! ...*

- European research on the web:
  - <http://cordis.europa.eu>
  - <http://cordis.europa.eu/fp7>
  - <http://ec.europa.eu/comm/research/future/>
- Information Society and Media:
  - [http://ec.europa.eu/information\\_society/](http://ec.europa.eu/information_society/)
  - <http://cordis.europa.eu/ist>
  - <http://cordis.europa.eu/micro-nanosystems>
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