



European Green Car Initiative – the 2nd calls for proposals

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**European Commission
Research DG-H2
Ludger Rogge**





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Content of presentation

- **European Green Car Initiative: Research in Action (results of 1st calls for proposals)**
- **Open topics in 2nd calls for proposals**
- **How to know more?**



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European Green Cars Initiative: Research in Action

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Results of the 1st calls for proposals (published in 2009)





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European Green Cars Initiative – Participation in the First Calls (published in 2009)

Calls identifier	Call title	Mio €	Received proposals	Retained proposals
FP7-SST-2010-RTD-1	Sustainable Surface Transport (part of EGCI: focus on electric and hybrid vehicles)	40	49	15
FP7-2010-GC- ELECTROCHEMICAL- STORAGE	Joint call on sustainable automotive electrochemical storage applications (DG RTD)	25	25	7
FP7-SST-2010-MOVE-1	Demonstration project on electromobility (part of EGCI)	23	4	1
FP7-2010-ICT-GC	ICT for fully electric vehicles	20	15	7
Total		108	93	30



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The 2010 DG MOVE call

- Wide scale demonstrations of electric vehicles
- Not only vehicles, but mainly infrastructure will be covered
- Standardisation, business models and user acceptance very important aspects



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Joint call on electrochemical storage

- Four directorates involved, jointly developing the call and evaluating the proposals
- 25 high level proposals submitted, 7 proposals have been selected for funding
 - ➔ 1 project develops advanced metal air batteries, aiming at developing chemistries capable of delivering more than double the range of the best current Lithium cells for a given weight;
 - ➔ 4 proposals aim to improve the performance of lithium based cells, while improving cost, safety and environmental features (getting away from costly and harmful materials like nickel, cobalt, organic electrolytes...);
 - ➔ 2 projects propose to improve the performance of supercapacitors






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Call FP7-SST-2010-RTD-1

EGCI topics

Topic	Proposals	
	Evaluated proposals	Retained proposals
Electrical machines	10	2
Integrated electric auxiliaries and on-board systems	3	2
Optimised thermal engine development and integration	6	2 +(R1)
Smart storage integration	6	1
Advanced electric vehicle concepts	14	6
Implementing Public-Private Partnership in the 'European Green Cars Initiative'	1	1
Raising awareness of potential job opportunities related to the electrification of road transport	5	1
  TRANSPORT RESEARCH	45	15 +(R1)  COOPERATION





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Open topics in 2nd calls for proposals (published on 2010)



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European Green Cars Initiative – 2nd calls (2010)

- **Emphasis on**

- Electrification of vehicles with a focus on vehicle system integration: 6 topics (RTD), 4 topics (INFSO)
- Heavy duty vehicles (2 topics)
- Logistics and co-modality (4 topics)





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European Green Cars Initiative – 2nd calls

Calls identifier	Call title	Open topics	Mio €	Publ. date	Closing date
FP7-SST-2011-RTD-1	Sustainable Surface Transport (dedicated to EGCI topics)	9	30.25	20-07-10	02-12-10
FP7-2011-GC-ELECTROCHEMICAL-STORAGE	Sustainable automotive electrochemical storage	2	25.5	20-07-10	02-12-10
FP7-ERANET-2011-RTD	ERA-NET Plus call on "Electromobility" involving several MS (part of EGCI)	1	10	20-07-10	22-02-11
FP7-2011-ICT-GC	ICT for fully electric vehicles	4	30	20-07-10	02-12-10
Total		16	95.75		



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Topics levels of call FP7-SST-2011-RTD-1

- Level 1:

- Generic,
- Define broad field of activity
- Proposals may be approached with some degree of flexibility

- Level 2:

- Specific
- Refer to well identified industrial, policy and socio-economic matters
- Are mission driven and explicit in their formulation
- Content of topic has to be covered entirely



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Funding schemes of call FP7-SST-2011-RTD-1

- CP-FP:

- "Collaborative Project" small or medium-scale focused research projects with a maximum EU contribution of up to € 3Mio.

- CP-IP:

- "Collaborative Project" large-scale integrating projects with a minimum EU contribution of € 3Mio.

- CP-IP-SICA:

- "Collaborative Project" dedicated to Specific International Cooperation Actions

- CSA

- Coordination and support actions

Open topics under the European Green Car Initiative (EGCI)

Call	Topics	Funding scheme	Level
	Electric vehicles		
FP7-SST-2011-RTD-1	GC.SST.2011.7-1 Specific safety issues of electric vehicles	CP-FP	1
FP7-SST-2011-RTD-1	GC.SST.2011.7-2 Integrated Thermal Management	CP-FP	1
FP7-SST-2011-RTD-1	GC.SST.2011.7-10 Architectures of Light Duty Vehicles for urban freight transport	CP-FP	2

FP7-2011-GC-ELECTROCHEMICAL-STORAGE	GC.SST.2011.7-7 Advanced eco-design and manufacturing processes for batteries and electrical components	CP-IP	
FP7-2011-GC-ELECTROCHEMICAL-STORAGE	GC.ENV.2011-3.1.3-2 Operational guidance for Life-Cycle Assessment studies of the EGCI	CSA-SA	
FP7-ERANET-2011-RTD	GC.SST.2011.7-8 ERA-Net Plus "Electromobility"	CSA-CA	





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Topic: GC.SST.2011.7-1

Specific safety issues of electric vehicles

- Objective:

- ➔ Increasing customer acceptance of EVs by reducing potential critical safety issues: presence of high voltages, potentially hazardous chemicals and the absence of engine noise

- Content/scope:

- ➔ Solutions to ensure safe plug-in/re-charging during normal operation, prevention of misuse, protection against fire and electric shocks during maintenance or after a crash

- ➔ Systems and technologies capable of raising the acoustic perception of the FEV and giving effective warning to vulnerable users at a sufficient distance

- Funding schemes: CP Small/Medium scale – Level 1



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Topic: GC.SST.2011.7-2

Integrated Thermal Management

● Objective:

→ develop cost efficient and industrially viable integrated thermal systems for long range, reliable and comfortable EVs when no waste heat resource is available.

● Content/scope:

→ Improve efficiency of the thermal control of the energy storage system, independently of the actual ambient temperature.

→ Optimize thermal comfort and reduce energy consumption through innovative, light, cost efficient, electronically controlled materials and their integration aspects (new insulating materials, active glazing, local heating, etc.).

→ Develop cost effective thermal management systems of the power train during charging, operation of the vehicle as well as during parking periods.

→ Cooling aspects of the electric motor in combination with a ICE range extender or auxiliaries.



● Funding schemes: CP Small/Medium scale – Level 1





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Topic: GC.SST.2011.7-10

Architectures of Light Duty Vehicles for urban freight transport

- Objective:

- develop novel electrified LDV concepts and solutions achieving high efficiency gains

- Content/scope:

- Usability in the urban environment.

- Optimized structural layout aiming at improving weight and crashworthiness.

- Modularization of subsystems and standardization of components for low cost and high efficiency

- Consideration of EMI/EMC and radiation health impact issues, maintenance and repair

- Funding schemes: CP Small/Medium – Level 2



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Topic: GC.SST.2011.7-7

Advanced eco-design and manufacturing processes for batteries and electrical components

- Joint call (NMP, ENV, SST): **FP7-2011-GC-ELECTROCHEMICAL-STORAGE**
- Content/scope:
 - Research shall address whole value chain including the eco-design, assembly/integration and production of batteries and electrical components (motors, battery management systems, etc.)
 - Eco-design should properly account for the relevant dismantling, recycling/disposal, and health and safety aspects of critical material
- Funding scheme: CP-IP
- Additional eligibility criterion:
 - EC-contribution must be higher than € 4 Mio



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Topic: GC.ENV.2011-3.1.3-2 Operational guidance for Life-Cycle Assessment studies of the European Green Car Initiative

- Joint call (NMP, ENV, SST): **FP7-2011-GC-ELECTROCHEMICAL-STORAGE**
- Content/scope:
 - ➔ Increase the consistency and transparency of the LCA studies carried out on electric vehicles and, more in general, on all projects performed with the EGCI.
- Funding scheme: CSA-SA
- Additional eligibility criterion:
 - ➔ EC-contribution must not exceed € 500.000



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Topic: GC.SST.2011.7-8 ERA-Net Plus "Electromobility"

- Open in call **FP7-ERANET-2011-RTD**
- Objective:
 - Improve coordination of national research activities in "Electromobility"
 - Pool financial resources from participating national research programmes and the EU to launch a single joint call for proposal for research projects in the field of "Electromobility"
- Content/scope:
 - 5 thematic key dimensions:
 - Energy and environmental approach
 - Usage patterns, economic models, actors
 - Technical dimensions of the recharge and distribution system
 - Testing, trials and normative standards
 - Applied technological research/ innovation
- Funding scheme: CSA-CA – Expected total budget: € 20-30 Mio
- Presently 8 countries involved, further might follow





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Open topics under the European Green Car Initiative (EGCI)

Call	Topics	Funding scheme	Level
	Heavy duty vehicles		
FP7-SST-2011-RTD-1	GC.SST.2011.7-3 Efficient long distance transport - waste heat recovery	CP-FP	1
FP7-SST-2011-RTD-1	GC.SST.2011.7-9 Efficient long distance transport - future power train concepts (includes advanced combustion and after-treatment)	CP-IP	2



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Topic: GC.SST.2011.7-3

Efficient long distance transport - waste heat recovery

- Objective:

- further development of waste heat recovery systems which should achieve a minimum of 10% fuel consumption reduction at vehicle level

- Content/scope:

- System design for the thermodynamic cycle

- Development of expanders, advanced heat exchangers and working fluids.

- Cooling system and integration, arrangement at the power train and vehicle.

- Development of simulation methods for future adaptation of such a system on the various power trains for heavy duty trucks.

- Funding schemes: CP Small/Medium scale – Level 1



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Topic: GC.SST.2011.7-9

Efficient long distance transport - future power train concepts (includes advanced combustion and after-treatment)

● Objective:

→ further reduction of the fuel consumption of heavy duty trucks (a 15% efficiency improvement from the power train, based on Euro 5 power train on the WHTC and the ETC) while anticipating the needs deriving from further expected steps of regulation (Euro VI emission limits)

● Content/scope:

→ Engine innovation will include a suitable combination of :

→ Down-sizing / down-speeding with advanced turbo-charging; New turbo charger system; Friction reduction; Faster combustion; Advanced air control systems;

→ After-treatment innovation will include a suitable combination of:

→ Reduced thermal losses; Advanced NOx after-treatment systems; Heat management for the after-treatment system;

● Funding schemes: CP Large scale – Level 2





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Open topics under the European Green Car Initiative (EGCI)

Call	Topics	Funding scheme	Level
	Logistics and Co-modality		
FP7-SST-2011-RTD-1	GC.SST.2011.7-4 Urban – interurban shipments	CP-FP	1
FP7-SST-2011-RTD-1	GC.SST.2011.7-5 Integrated intermodal traveller services	CP-FP-SICA	1
FP7-SST-2011-RTD-1	GC.SST.2011.7-6 Capability of improving and exploiting capacity	CSA-CA	1
FP7-SST-2011-RTD-1	GC.SST.2011.7-11 E-freight solutions and supply chain management	CP-FP	2



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Topic: GC.SST.2011.4- Urban – Interurban shipments

- Objective:

- Develop smart urban freight systems and sustainable solutions for city based logistics

- Coverage:

- Research on urban distribution of goods (delivery systems, delivery routes, last mile logistics organization and operation) to reduce the impact of freight movements on urban resident.

- New regulatory solutions.

- New instruments/technologies for urban freight data collection.

- The transport operation of delivery vehicles within zero-emission zones.

- Optimisation of terminals connecting long distance transport and urban distribution

- Funding schemes: CP Small/Medium scale – Level 1



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Topic: GC.SST.2011.5

Integrated intermodal traveller services

● Objective:

- develop integrated traveller information services that are up-to-date, reliable, user-friendly and wide-ranging
- integrate available traveller information systems for all transport modes (rail, air road and waterborne) in order to provide and establish an open platform for planning, booking and travelling multimodal journeys.

● Coverage:

- Solutions to provide “early warning” to travellers including regular updates on delays and service disruptions
- Forecast mechanisms to deliver short term forecasts of state of relevant transport modes
- Standardized interfaces to deliver cross mode information.
- International Cooperation encouraged with countries, such as Brazil, China and Russia

● Funding schemes: CP - FP Small/Medium scale SICA – Level 1





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Topic: GC.SST.2011.6

Capability of improving and exploiting capacity

- Objective:

- Better exploit the goods transport capacity and increase the load factor through new ways of cooperation between manufacturing and transport industries to reorganise and scale-up transport flows

- Coverage:

- Promoting match-making and sharing sustainable logistics knowledge between manufacturing industries and the transport & distribution sector.

- Methodology to calculate revenues and benefits, including a legal framework to split costs and benefits in shared transportation.

- New business models for the entire supply-chain

- Application and validation of business models.

- Funding schemes: CSA-CA – Level 1





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Topic: GC.SST.2011.11- E-freight solutions and supply chain management

- Objective:

- ➔ Demonstrate the interoperability of a wide range of e-logistic solutions that have been developed recently through various EU funded and national projects.

- Coverage:

- ➔ To demonstrate the SME friendliness, giving SMEs access to easy-to-use and environmentally friendly co-modal transport options

- ➔ To create a solid European transport e-logistic framework, which in its turn is a sound basis for developments on e-customs, e-health, etc.

- Funding schemes: CP Small/Medium scale – Level 2



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How to know more?



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COOPERATION





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Information about the call (1)

Core documents:

- Call fiche:
 - ➔ **FP7-SST-2011-RTD-1**
 - ➔ **FP7-2011-GC-ELECTROCHEMICAL-STORAGE**
 - ➔ **FP7-ERANET-2011-RTD**

- **FP7 Transport Work programme**
- **Guides for Applicants**
 - ➔ **for Collaborative Projects**
 - ➔ **for Coordination and Support Action (support)**
 - ➔ **for Coordination and Support Action (coordinating)**



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Information about the call (2)

Additional documents:

- Rules for submission, evaluation and selection procedures
- Model Grant Agreement
- Guide to Financial Issues



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Information about the call (3)

Where do I find these documents?

- Call pages:

<http://cordis.europa.eu/fp7/dc/index.cfm>

Links to:

- Electronic Proposal Submission System (EPSS)
- National Contact Points

Additional Documents:

http://cordis.europa.eu/fp7/find-doc_en.html



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Contacts

Specific questions related to EGCI topic

Call	Name	E-mail
FP7-SST-2011-RTD-1	Mr. Maurizio Maggiore, DG RTD	maurizio.maggiore@ec.europa.eu
FP7-2011-GC-ELECTROCHEMICAL-STORAGE	Mr Patrice Millet, DG RTD	Patrice.millet@ec.europa.eu
FP7-ERANET-2011-RTD	Mr Joerg Niehoff, DG RTD	joerg.niehoff@ec.europa.eu

**Slides and Video Recordings of the EGCI Information Day
of 09 July 2010 in Brussels are available via:**

Website:

http://ec.europa.eu/research/industrial_technologies/lists/events-fp7-information-day-2010_en.html

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More information (1)

FP7 Cordis homepage:

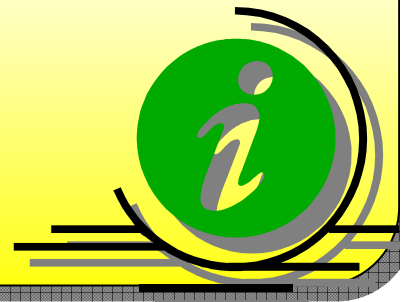
http://cordis.europa.eu/fp7/home_en.html

DG RTD Transport:

http://ec.europa.eu/research/transport/index_en.cfm

European Green Car Initiative:

<http://www.green-cars-initiative.eu/>





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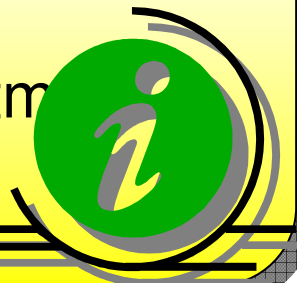
More information (2)

General sources of help

FP7 Enquiry service: <http://ec.europa.eu/research/enquiries>
Nat. Contact Points: http://cordis.europa.eu/fp7/ncp_en.html

Specialised and technical assistance

EPSS Helpdesk support@epss-fp7.org
IPR helpdesk <http://www.ipr-helpdesk.org>
CORDIS Helpdesk
http://cordis.europa.eu/guidance/helpdesk/home_en.htm





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FP7-SST-2010-RTD-1- Timetable

Date of publication	30 July 2010
Deadline for submission	02 Dec 2010, 17:00
Evaluation of proposals	Jan 2011 – March 2011
Initial information letter incl. ESRs	March 2011
Launch negotiations	April 2011
Signature of first grant agreement	Sep 2011



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Vielen Dank fuer Ihre Aufmerksamkeit!

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