

FP7 ICT Work Programme 2011

Objective ICT-2011.6.6 Low carbon multi-modal mobility and freight transport

Challenge 6 (ICT for low carbon economy) explores how ICT can contribute to delivering a sustainable, low carbon society and help progress towards the Europe 2020 targets on climate and energy.



Objectives

ICT-2011.6.1 Smart Energy Grids

ICT-2011.6.2 ICT systems for energy efficiency

ICT-2011.6.3 ICT for efficient water resources management

EEB-ICT-2011.6.4 ICT for energy-efficient buildings and spaces of public use

ICT-2011.6.6 Low carbon multi-modal mobility and freight transport

ICT-2011.6.7 Cooperative Systems for energy efficient and sustainable mobility

GC-ICT-2011.6.8 ICT for fully electric vehicles

p.80-81, Work Programme 2011
ftp://ftp.cordis.europa.eu/pub/fp7/docs/wp/cooperation/ict/c-wp-201101_en.pdf

Challenge 6: ICT for a low carbon economy

ICT can assist in reshaping the demand side of our energy-dependant society, reducing energy consumption, and subsequently CO₂ emissions, in particular in electricity distribution, buildings and construction, transport and logistics, the public sector, rural areas and cities.

The Challenge focuses on the following:

- Future electricity distribution grids applying seamless communications systems to increase the connectivity, management, automation and coordination between suppliers (including renewable sources), consumers and networks;
- Energy efficient design and decision support tools optimizing the energy performance during systems development and operation (e.g. modelling, simulation and planning, enterprise management systems, data centres);
- Water management, including demand-side management, integrated water resource management frameworks and comprehensive decision support systems;
- Energy-efficient buildings, neighbourhoods as well as urban and rural areas improving the buildings construction cycle, improving the use of energy beyond buildings, advancing complex urban systems, and optimising the dynamics of energy supply and demand in neighbourhoods and extended urban and rural communities. This research will contribute to the Energy-Efficient Buildings Public-Private-Partnership launched in 2008 as part of the European Economic Recovery Plan;
- ICT for low-carbon multi-modal freight and logistics covering technologies and services for multi-modal freight and logistics as well as ICT for clean and

efficient multi-modal mobility for further improving energy efficiency and reducing CO₂ emissions in all modes of transport for passengers and goods;

– Cooperative Systems for low-carbon multi-modal mobility covering cooperative applications and services for energy efficiency and eco-friendly mobility as well as a European Wide Service Platform (EWSP) for services leveraging those cooperative systems;

– ICT for fully electric vehicles advancing the development and integration of major building blocks of the Full Electric Vehicle (FEV), and integrating the FEV with infrastructures. Projects supported under this objective will contribute to the European Green Cars Initiative, a Public-Private-Partnership launched in 2008 as part of the European Economic Recovery Plan.

Objective ICT-2011.6.6 Low carbon multi-modal mobility and freight transport

Target Outcome

a) ICT for low-carbon multi-modal freight and logistics

covering technologies and services for multi-modal freight and logistics, and using new technologies such as RFID, wireless sensor networks and common platforms and architectures. The focus is on:

– Integration of different transport modes (road, rail, air and sea transport), following Europe's transport policy principle of co-modality, in particular between road transport and other modes

– Intermodal interoperable logistics management and tracking systems and Intelligent Cargo systems which support the decarbonisation of transport by providing real-time process and status information on cargo and its movements to users, for increased transport efficiency and timeliness and the integration of the intelligent cargo systems into the multi-modal transport data infrastructures.

b) ICT for clean and efficient multi-modal mobility

for further improving energy efficiency and reducing CO₂ emissions in all modes of transport for passengers and goods:

– New tools, systems and services supporting energy-efficient driving and driver behaviour adaptation

– Environmentally aware route and access planning, intelligent road infrastructures, definition of digital map

attributes for eco-routing and advanced multi-modal travel and traffic advice and information systems for individual and collective transport

– Methodologies for assessing the impact of advanced ICT in energy efficiency and CO₂ reduction, and in instantaneous emission models which take into account driver behaviour.

c) Coordination and Support Actions

– In the framework of the Intelligent Car Initiative, support to the eSafety Forum activities such as stakeholder consultations, road mapping and organising events and dissemination.

– Support to research agendas for energy efficiency, international cooperation, user awareness raising and dissemination of research results, international standardisation and harmonisation.

– Support the establishment of European large scale actions spanning research, innovation and deployment of service infrastructures for sustainable mobility and transport.

The Coordination and Support Actions should include relevant stakeholders in the domain.

EXPECTED IMPACT

- Strengthened position of Europe's logistics and freight industries in the marketplace for low-carbon products and services
- Significant improvements in efficiency and environmental friendliness of mobility and transport in Europe; target: 25% reduction in GHG emissions in transport
- Full integration of intelligent cargo items into the multi-modal transport infrastructure, with special emphasis on urban multi-modal logistics
- Widening the market for new ICT-based mobility and transport services in Europe and worldwide.

Funding Schemes

a) and b): IP, STREP; c): CSA

Indicative budget distribution¹⁰

- IP, STREP: EUR 46 million, with a minimum of 50% to IPs and 30% to STREPs

- CSA: EUR 4 million

Call FP7-ICT-2011-7