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COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 12.3.2009
SEC(2009) 268

COMMISSION STAFF WORKING DOCUMENT

Accompanying document to the

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

**on Mobilising Information and Communication Technologies to facilitate the transition
to an energy efficient, low carbon economy**

Projects on ICT for Energy Efficiency and on Energy Efficient ICTs

{COM(2009) 111 final}
{SEC(2009) 269}
{SEC(2009) 270}

Projects on ICT for Energy Efficiency and on Energy Efficient ICTs

The Commission funded a few projects in ICT for energy efficiency in the second part of 6th Framework Programme for Research and Technological Development (FP6). In 2007, **ICT for Energy Efficiency** was introduced as a specific theme under the ICT priority of the 7th Framework Programme for Research and Technological Development (FP7).

Research focuses on solutions for the electricity grid (smart grid), buildings and transport, and R&D on solid-state lighting. Furthermore, the same themes were introduced into the Competitiveness and Innovation Programme to complement the research activities with pilot projects. The Commission also provides funding to **energy-efficient ICTs**.

The following list includes relevant examples from each area.

ACRONYM	FULL TITLE	EU Funding
FP6 Energy Efficiency for ICT		
Hydra	Networked Embedded System middleware for heterogeneous physical devices in a distributed architecture	7 650 000
IRRIIS	Integrated Risk Reduction of Information-based Infrastructure Systems (IRRIIS)	6 995 831
COOPERS	Cooperative Networks for Intelligent Road Safety	9 799 210
CVIS	Cooperative Vehicle-Infrastructure Systems	21 905 795
	Subtotal	46 350 836
FP6 ICT for Energy Efficiency		
IMPROVE	Improving Display and Rendering Technology for Virtual Environments	1 879 757
Circles of light	Compact SOI nanophotonic Raman Laser and modulator and detector based on circular grating resonator devices	1 065 000
VIBES	VIBration Energy Scavenging	2 600 000
MIMOSA	Microsystems platform for MOBILE Services and Applications	10 000 000
e-CUBES	3-D-Integrated Micro/Nano Modules for Easily Adapted Applications	12 000 000

MUFLY	Fully Autonomous Micro Helicopter	2 700 000
OSIRIS	Original System for Image Rendition via Innovative Screens	7 100 000
FLEXIDIS	Flexible Displays	14 320 000
GIBON	Opt-electronic integration for 100 Gigabit Ethernet Optical Networks	1 850 000
HECTO	High-speed Electro-optical Components for integrated Transmitter and receiver in Optical communications	2 364 992
LANCER	Light Amplifiers with NanoClusters and ERbium	2 199 942
IOLOS	Integrated Optical Logic and Memory Using Ultrafast Micro-ring Bistable Semiconductor Lasers	1 250 000
MEPHISTO	Merger of Electronics and Photonics Using Silicon Based Technologies	2 099 966
PHOLOGIC	Nanophotonic Logic Gates	2 000 000
OLAS	Organic electrically pumped LASer by engineering of heterostructures in field-effect devices	1 600 000
POLYCOM	Plastic optical fibres with embedded active polymers for data communications	1 550 000
PLASMOCOM	Polymer-based nanoplasmonic components and devices	1 849 710
DOMINO	Antimonide Quantum Dots for Mid-Infrared Nano-Photonic Devices	2 027 919
VILLAGE	Versatile Infrared Laser source for Low-cost Analysis of Gas Emissions	1 800 000
OLLA	Organic LEDs for ICT and Lighting Applications	12 000 000
WISDOM	Wirespeed Security Domains Using Optical Monitoring	1 140 000
MUFINS	Multi-functional integrated arrays of interferometric switches	2 694 795
HYCON	ID Control: taming heterogeneity and complexity of networked embedded systems	4 600 000
FLAME	Flexible Organic Active Matrix OLED displays for Nomadic Applications	3 000 000

AMAZOLED	Active Matrix of Any Shape with Organic Light Emitting Diode displays	4 800 000
WASP	Wirelessly Accessible Sensor Populations	10 100 000
	Subtotal	110 592 081
FP7 Energy Efficiency for ICT		
ALPHA	Architectures for fLexible Photonic Home and Access networks	11 200 000
BONE	Building the Future Optical Network in Europe	3 700 000
DICONET	Dynamic Impairment Constraint Networking for Transparent Mesh Optical Networks	3 200 000
FUTON	Fibre Optic Networks for Distributed and Extendible Heterogeneous Radio Architectures	6 600 000
OMEGA	Home Gigabit Access	12 100 000
ReDeSign	Research for Development of Future Interactive Generations of Hybrid Fibre Coax Networks	1 800 000
SARDANA	Scalable Advanced Ring-based passive Dense Access Network Architecture	2 600 000
SENDORA	SEnsor Network for Dynamic and Opportunistic Radio Access	3 800 000
SENSEI	Integrating the Physical with the Digital World of the Network of the Future	15 000 000
UCELLS	Ultra-wide band real-time interference monitoring and CELLular management Strategies	2 700 000
TeleFOT	Field Operational Tests of Aftermarket and Nomadic Devices in Vehicles	9 703 001
POBICOS	Platform for Opportunistic Behaviour in Incompletely Specified, Heterogeneous Object Communities	2 300 000
Smartfreight	Smart freight transport in urban areas	2 200 000
OLED100 EU	Organic LED Lighting in European Dimensions	12 500 000
	Subtotal	89 403 001
FP7 ICT for Energy Efficiency		
ATHENIS	Automotive Tested High-voltage Embedded Non-	5 150 000

	volatile memory Integrated SoC	
AIM	A novel architecture for modelling, virtualising and managing the energy consumption of household appliances	2 609 867
AmI-MoSES	Ambient-Intelligent Interactive Monitoring System for Energy Use Optimisation in Manufacturing SMEs	2 000 000
Be Aware	Boosting Energy Awareness With Adaptive Real-time Environments	2 711 816
DEHEMS	Digital Environment Home Energy Management System	2 899 996
E4U	Electronics Enabling Efficient Energy Usage	449 997
GENESYS	Good practices for European developers of advanced ICT-enabled energy efficiency Systems	1 079 397
IntUBE	Intelligent Use of Buildings' Energy Information	2 700 000
ULTRA	Ultra-fast eElectronics for Terahertz Rapid Analysis in compact lab-on-chip applications	2 900 000
AEOLUS	Distributed Control of Large-Scale Offshore Wind Farms project proposal	2 500 000
SM4ALL	SMART HOMES FOR ALL AN EMBEDDED MIDDLEWARE PLATFORM FOR PERVASIVE AND IMMERSIVE ENVIRONMENTS FOR-ALL	2 900 000
POBICOS	Platform for Opportunistic Behaviour in Incompletely Specified, Heterogeneous Object Communities	2 300 000
HD-MPC	Hierarchical and Distributed Model Predictive Control of Large-Scale Systems	2 000 000
PRODI	Power plants Robustification based On fault Detection and Isolation algorithms	1 600 000
GINSENG	Performance Control in Wireless Sensor Networks	3 100 000
PECES	PErvasive Computing in Embedded Systems	1 750 000
DISC	Distributed Supervisory Control of Large Plants	1 900 000
MAC-TFC	Mems Atomic Clocks for Timing, Frequency control and Communications	3 350 000
MEMFIS	Ultrasmall MEMS FTIR Spectrometer	2 850 000

MEMS-4-MMIC	Enabling MEMS-MMIC technology for cost-effective multifunctional RF-system integration	2 900 000
E-STARS	Efficient Smart sysTems with enhAnced eneRgy Storage	2 600 000
FACESS	Flexible Autonomous Cost efficient Energy Source and Storage	3 400 000
Euridice	European Inter-Disciplinary Research on Intelligent Cargo for Efficient, Safe and Environment-friendly Logistics	8 248 853
Nearctis	A Network of Excellence for Advanced Road cooperative traffic management in the Information Society	2 500 000
Historic	Heterogeneous InP on Silicon Technology for Optical Routing and LogIC	2 300 000
PHASORS	PHase sensitive Amplifier Systems and Optical RegeneratoRS and their applications	2 698 947
MINIGAS	Miniaturised photoacoustic gas sensor based on patented interferometric readout and novel photonic integration technologies	1 850 000
SensHy	Photonic sensing of hydrocarbons based on innovative mid infrared lasers	2 350 000
SUBTUNE	Widely Tunable VCSEL using Sub Wavelength Gratings	2 787 695
DOTSENSE	Group III-nitride quantum dots as optical transducers for chemical sensors	1 223 789
GREENBAT	GREEN and SAFE thin film BATteries for flexible cost-efficient energy storage	2 799 319
ComboLED	Combined Organic LED Technology for Large-Area Transparent and low-cost lighting Applications	4 187 163
OLATRONICS	Development and integration of processes and technologies for the production of Organic Low-cost and large-Area flexible Electronics	3 800 000
FAST2LIGHT	High-throughput, large-area and cost-effective OLED production technologies	10 000 000
E3CAR	Nanoelectronics for an energy-efficient electrical car	42 824 358

SMARTPM	Smart Power Management in Home and Health	20 759 726
REEB	The European strategic research Roadmap to ICT enabled Energy Efficiency in Buildings and constructions	1 250 000
Smart House/Smart Grids	Smart House Interacting with Smart Grids to achieve next-generation energy efficiency and sustainability	2 557 257
BeyWatch	Building Energy WATCHer	2 873 170
	Subtotal	166 461 350
FP7 Socio-economic Sciences and Humanities (SSH) projects		
GILDED	Governance, infrastructure, lifestyle dynamics and energy demand: European post carbon communities	1.426.647
PACT	Pathways for carbon transitions	1.374.467
		2.801.114
FP7 Energy project		
OPEN METER	Open-access Standard for Smart Multi-Metering Services	2.400.000
		2.400.000
CIP PSP ICT for Energy Efficiency		
in-Time	Intelligent and Efficient Travel Management for European Cities	2 493 805
FREILOT	Urban Freight Energy Efficiency Pilot	2 036 134
ICT21EE	European ICT network for energy efficiency	405 000
iCars Network	Intelligent Cars Thematic Network	334 000
HosPilot*	Intelligent Energy Efficiency Control in Hospitals	2 170 000
In-Time*	Intelligent and Efficient Travel Management for European Cities	2 290 000
LITES*	LED-based intelligent street lighting for energy saving	1 280 000
BEST Energy*	Built Environment Sustainability and Technology in Energy	2 260 000

SAVE ENERGY*	Save energy in public buildings from 4 major European cities (Helsinki, Manchester, Lisbon and Rome)	2 230 000
BEPMS*	Building Energy Performance Management System	2 230 000
FREILOT*	Urban Freight Energy Efficiency Pilot	2 000 000
ICT4SMARTDG*	Thematic Network on ICT solutions to enable Smart Distributed Generation	531 000
SEESGEN-ICT*	Supporting Energy Efficiency in Smart Generation Grids through ICT	494 000
	Subtotal	20 753 939
	Total	438 762 321

