Objective ICT-2013.1.1 Future Networks

The target is the development of future broadband (fixed and mobile) networks which will be energy-efficient, secure, and robust, and will use spectrum flexibly and efficiently. Future networks will be the infrastructure which connects the future Internet of people, content, clouds and things, and will meet the targets of the DAE (Digital Agenda Europe).

The focus in WP2013 is on a restricted set of technology priorities, which are key to achieving the targets[1].

a) Next generation heterogeneous wireless and mobile broadband systems, based on flexible spectrum usage and reduced EMF and interference.
b) High throughput low-latency infrastructures based on dynamic all-optical networks and hybrid wireless and cable networks.
c) Internet architectures enabling innovation in network virtualization, specifically through programmability of network functions and protocols.
d) Tighter integration of satellite and terrestrial communications technologies, as a critical infrastructure, in particular for public safety/security applications.
e) Coordination and support actions for (re)structuring the research effort in the sector.

Expected Impact

••• Developing key enabling technologies for the future generations of the European high-speed broadband and mobile network infrastructure (factor of 10 overall capacity increase, plus factor of 10 radio efficiency increase).
••• Improved flexibility and economic, spectral and energy efficiency of access/transport infrastructures (factor of 4 reduction in watts/bit).
••• Strengthened positioning of European industry in the fields of Future Internet technologies, mobile and wireless broadband systems, optical networks, and network management technologies.
••• Contributions to standards and regulation as well as the related IPR.
••• Adoption by network operators of integrated all-optical networks and of spectrum flexible broadband wireless systems (by 2020).

Funding Schemes
a), b), c), d): IP, STREP
e) CSA

Indicative budget distribution

••• IP/STREP: EUR 46.5 million, of which a minimum of 50% to IPs and 30% to STREPs
••• CSA: EUR 2 million

Call
FP7-ICT-2013-11 (opening on 18/09/2012, closing on 16/04/2013)

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[1] Photonic devices for communication networks supporting the overall vision and requirements of Objective 1.1 are developed in Objective 3.2.

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Future Networks FP7 Project Portfolio
http://cordis.europa.eu/fp7/ict/future-networks/projects_en.html