



Future Networks

Objective ICT-2013.1.1

ICT Call 11

Network Technologies
DG CONNECT

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ICT Call for Proposals 11

- Call identifier: FP7-ICT-2013-11
- Date of publication: 18 September 2012
- Deadline: 16 April 2013, at 17:00.00 Brussels local time
- Indicative budget: EUR 236.5 million



Challenge 1: Pervasive and Trusted Network and Service Infrastructures

1.1: Future Networks

Call 11

1.2: Software Engineering, Services and Cloud Computing

1.3: Digital Enterprise

1.4: A reliable, smart and secure Internet of things for Smart Cities

1.5: trustworthy ICT

1.6: Connected and Social Media

1.7: Future Internet research Experimentation (FIRE)

1.8: Expansion of use Cases

1.9: Technology Foundation Extension and Usage

Future Networks Target Outcomes

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



Future Networks 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).



Future Networks Indicative budget distribution

Targets a, b, c, d

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

Target e

CSA: EUR 2 million

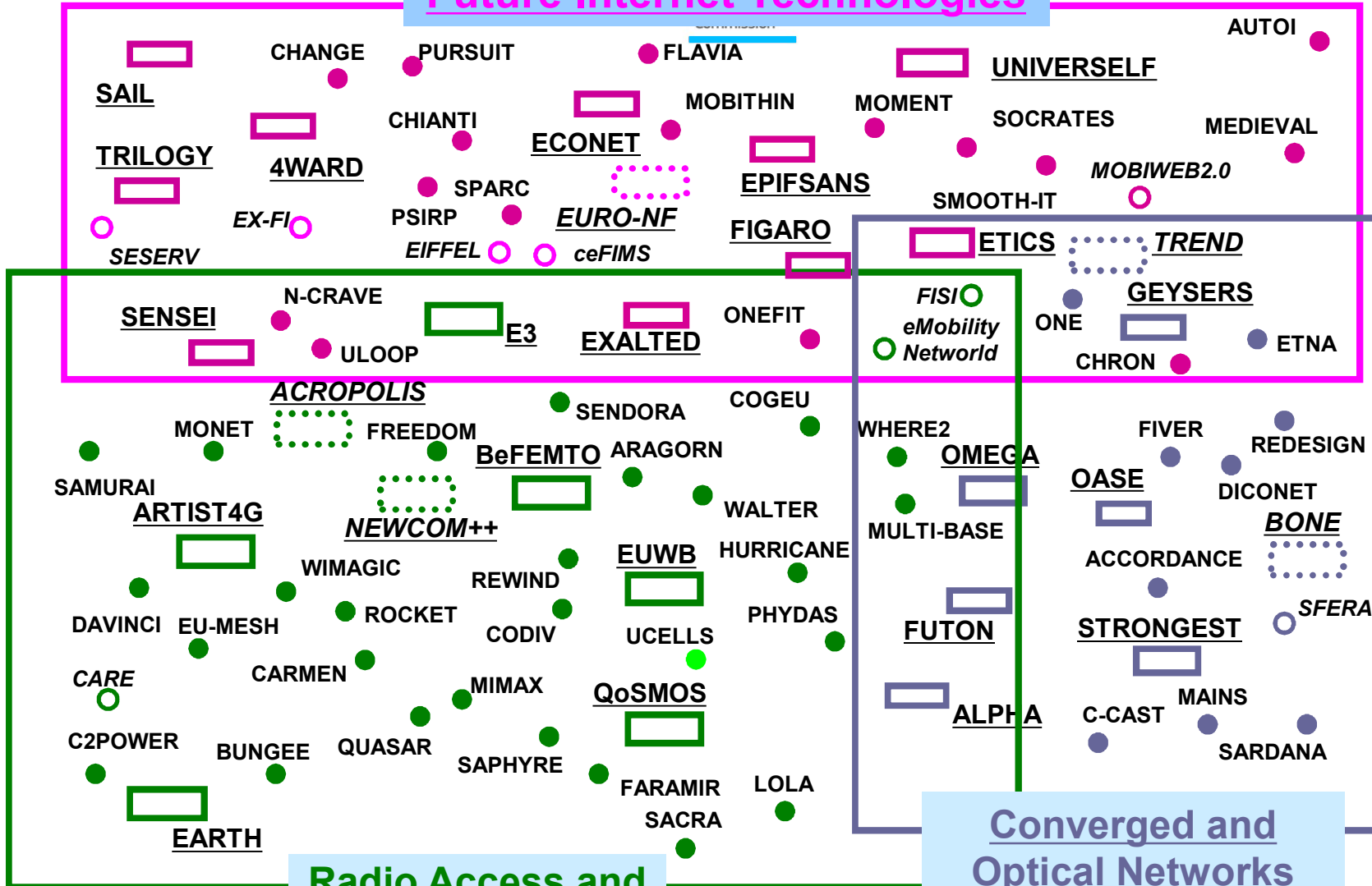
Future Networks

What are we looking for

- Highly innovative proposals addressing topics partially covered in previous calls; e.g.: hybrid wireless and cable networks; novel internet architectures; software defined networks; network virtualization; integration satellite/terrestrial technologies
- Proposals (CSA) preparing the research community for H2020: take-up, innovation



Future Internet Technologies



Radio Access and Spectrum Use

Converged and Optical Networks



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Project portfolio - Call 8: 37 proposals retained (under negotiation)

- Wireless and mobile broadband systems: *5GNOW, ABSOLUTE, CROWD, DIWINE, DUPLO, E3Networks, EMPHATIC, iJOIN, HARP, LEXNET, METIS, Mobile Cloud Network, MOTO, PHYLAWS, SEMAFOUR, TROPIC*
- High capacity end-to-end infrastructures technologies: *COCONUT, COMBO, CONTENT, DISCUS, FOX-C, IDEALIST, LIGHTNESS, SODALES*
- Novel Internet architectures, management and operation frameworks: *eCOUSIN, FUSION, LEONE, METIS, Mobile Cloud Network, mPLANE, RITE, SmartenIT, Trilogy 2*
- Flexible, resilient, broadband and integrated satellite communication: *ABSOLUTE, BATS, CoRaSat*
- Coordination and Support Actions and Networks of Excellence: *CRS-I, NetSoc, NEWCOM#, FLAMINGO*

More info on the above projects (*end of Oct. '12*):

http://cordis.europa.eu/fp7/ict/future-networks/projects_en.html



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Relevant European Technology Platforms (ETPs):

- **Net!Works:** communications networks and services; players of the communications networks sector: industry leaders, innovative SMEs, and leading academic institutions.
<http://www.networks-etp.eu/about-networks.html>
- **The Integral Satcom Initiative (ISI):** Satellite Communications; embraces major part of relevant private and public stakeholders from Satellite Communications (SatCom) and Space sector in Europe.
<http://www.isi-initiative.org/>
- **Photonics21.** The platform represents photonics research priorities at European level and aims to implement a common photonics strategy for Europe and to align synergies between industry, science and policy.
<http://www.photonics21.org/>



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Prospects of this area in H2020

- **Bridge to H2020:** through the CSAs (e.g. uptake of integrated all-optical networks and spectrum-flexible broadband systems, innovation, standardization)
- **Coverage of the objective in H2020:** ICT R&I is part of the priority "Industrial Leadership". ICT R&I includes *Future Internet (Infrastructures, technologies and services)*
- **On-going public consultations:** Open workshop 29/6/2012 - Future Networks: Consultation on Future Network Technologies Research and Innovation in HORIZON2020
http://ec.europa.eu/information_society/events/future_networks/concertation/horizon2020-stakeholder-consultation/index_en.htm#_ftn1



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Additional information

Future Networks on CORDIS:

http://cordis.europa.eu/fp7/ict/future-networks/home_en.html

Future Networks - Call 8:

Integrated Project Portfolio Analysis Trends Summary

<http://cordis.europa.eu/fp7/ict/future-networks/documents/call8-trends.pdf>

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