Future Networks

Objective ICT-2013.1.1

ICT Call 11

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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 <u>wireless and mobile</u> <u>broadband</u> systems, based on flexible spectrum usage and reduced EMF and interference.   (IP, STREP)

b) High throughput low-latency infrastructures, based on dynamic <u>all-optical networks</u> and hybrid <u>wireless and cable</u> networks. (IP, STREP)

c) Internet architectures enabling innovation in <u>network virtualization</u>, specifically through <u>programmability</u> of network functions and protocols. (IP, STREP)

d) Tighter integration of <u>satellite and terrestrial</u> 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

<u>Targets a, b, c, d</u>

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

<u>Target e</u>
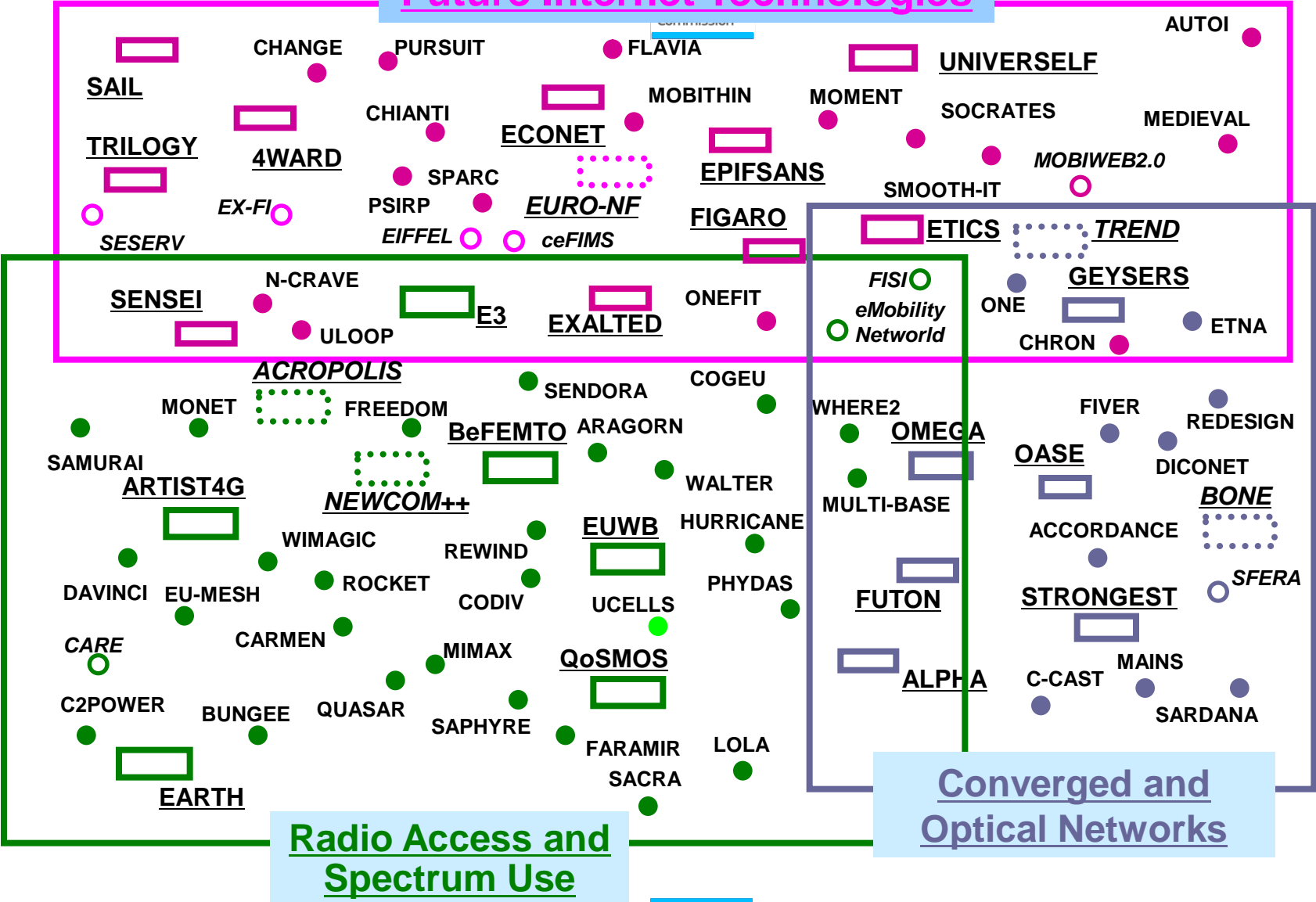
CSA: EUR <u>2 million</u>

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

IP STREP NoE CSA

Future Internet Technologies

CHANGE PURSUIT FLAVIA AUTOI

SAIL MOBITHIN **UNIVERSELF**

CHIANTI MOMENT SOCRATES MEDIEVAL

TRILOGY **4WARD** **ECONET**

SPARC **EPIFSANS** *MOBIWEB2.0*

EX-FI PSIRP **EURO-NF** SMOOTH-IT

SESERV *EIFFEL* *ceFIMS* **FIGARO** **ETICS** *TREND*

SENSEI N-CRAVE *FISI* **GEYSERS**

ULOOP **E3** **EXALTED** ONEFIT *eMobility Networld* ONE ETNA

ACROPOLIS CHRON

MONET FREEDOM SENDORA COGEU WHERE2 FIVER REDESIGN

SAMURAI **BeFEMTO** ARAGORN **OMEGA** **OASE** DICONET

ARTIST4G *NEWCOM++* WALTER MULTI-BASE *BONE*

WIMAGIC **EUWB** HURRICANE ACCORDANCE

DAVINCI EU-MESH REWIND **FUTON** **STRONGEST** *SFERA*

CARE ROCKET CODIV PHYDAS

CARMEN UCELLS MAINS

C2POWER MIMAX **QoSMOS** **ALPHA** C-CAST SARDANA

BUNGEE QUASAR SAPHYRE LOLA

EARTH FARAMIR SACRA

Radio Access and Spectrum Use

Converged and Optical Networks

Research and Innovation

Future Networks

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

Future Networks

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/

Future Networks

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

Future Networks

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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