Getting involved

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Overview

- Work programmes
- Building consortia
- Developing proposals
- Relationships

PACE-Net Plus is a project funded by the European Commission to reinforce EU-Pacific cooperation on Science, Technology & Innovation, and to promote the development of mutually beneficial partnerships. Grant Agreement no.: 244514

What is a Work Programme?

- Each year the European Commission publishes a Work Programme that contains all of the call details for the coming year
- May also include preliminary information about the following year's programme also
- Over 1,000 pages!
- ICT, Nano, Space, Health, Food, Energy, Transport, Climate Change, Societies… typically ~100 pages each
- Read the following to learn how the Work Programme are developed: http://www.vinnova.se/en/Publications-and-events/Publications/Products/A-rough-guide-to-the-FP7-Work

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Example: ICT

Leadership in enabling and industrial technologies

- Information and Communication Technologies (ICT)

HORIZON 2020

WORK PROGRAMME 2014 – 2015

5. Leadership in enabling and industrial technologies

i. Information and Communication Technologies

Important Notice on the First Horizon 2020 Work Programme

This Work Programme covers 2014 and 2015. Due to the launching phase of Horizon 2020, parts of the Work Programme that relate to 2015 (topics, dates, budget) are provided at this stage on an indicative basis only. Such Work Programme parts will be decided during 2014.

(European Commission Decision C (2013)8631 of 10 December 2013)

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Example: ICT

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Future Internet

Future Internet

Over the last 30 years, the Internet has become a major infrastructure for growth, job creation, and social progress. Internet must continue to foster and support development and to accommodate all the diverse usages for which it was not initially foreseen. The aim is therefore to address the most critical technical and use aspects for the Internet to be apt to support the huge future expectations of society at large.
The Future Internet topics will therefore i) address the limitations of an Internet not designed to support the very large set of requirements imposed by an ever more diversified usage; ii) support the advent of more efficient computational and data management models responding to the challenges posed by increased device / object connectivity and data-intensive applications; iii) leverage the Internet to foster innovative usages of social and economic value also benefiting from the geospatial capabilities of the Future Internet.
The area strategy is based on a complementary set of technology push – usage pull actions. The technology perspective primarily addresses the limitations of communication networks and cloud computing infrastructures and services when moving towards a hyper connected world with hundreds of billions of devices fuelled by ambient and pervasive services. The usage perspective is supported by the early availability of testbeds for experiments and research validation (FIRE+) and by innovative social and business collaborative usages with users in control and taking advantage of advanced technologies. This is complemented with actions towards web entrepreneurs to leverage downstream business opportunities.

ICT 5 – 2014: Smart Networks and novel Internet Architectures

Specific Challenge: The Internet architecture is fundamentally a "host centric" architecture, with limited "in network" service capability and static routing/addressing. Key functionalities like security, trust or mobility had not been planned in the original design. Additional service capabilities on the Internet have been made possible with overlay architectures or patches presenting inherent weaknesses. The ever larger portfolio of business models, processes, applications/devices that have to be supported, coupled with a rapidly growing number of application and societal requirements, calls for a new approach towards the Internet architecture, which will also bring computer architectures and network architectures closer for greater efficiency.
Multiple approaches have been researched: Information Centric Networks, Named Data Networking, Publish Subscribe information Networking, opportunistic and Disruption Tolerant Networking are a few of them, breaking the link between information and the physical network address where it is located. Recursive architectures have also been proposed, to better address security and trust issues and to reengineer the layered architecture.
The next wave of research in the field of Internet Architecture should solve remaining problems and bring the most promising options closer to deployment.

Scope: The focus of the research covers innovative Internet architectures and networking concepts that can meet the challenges and opportunities of the 21st century, taking into consideration the larger social, economic and legal issues that arise from the interplay

Future Internet

between the Internet and society. The target research is thus expected to address novel approaches to information access and delivery, built-in security and privacy, generalised mobility, and seamless integration with computing environments as typical drivers. The proposed approach should go beyond fixing today's recognised limitations (e.g. ICN for content networking). It should also be adapted to future applications such as sensor based applications. A key target will be to prove that the proposed architecture does actually scale and makes possible a low cost migration strategy from existing IP networks. Comparative pilot experiments using virtualised platforms are encouraged.

Expected impact:

- Peer-reviewed scientific publications, patents, new PhDs, and new open source software releases. Key scientific publications like ACM Sigcomm will be targeted.
- Contributions to standards: IETF, IRTF may be targeted.
- Creation of a Future Internet architecture network of European researchers and users of sustainable nature, i.e. beyond the availability of public European research funds.
- Links with related International developments, e.g. with the US NSF Future Internet Architecture programme follow up and with similar programmes in Asia, notably Korea and Japan, supporting global views on open standards and interoperability.
- Migration/deployment strategies and roadmaps validated by key industrial players (operators/service providers) and the other stakeholders (regulators, policy makers) taking an active part in the development of the internet.
- Strengthen European industry for closer integration of datacom and telecom.
- Contribution towards at least one large scale validation trial.

Type of action:
Research & Innovation Actions – Proposals requesting a *Small contribution* are expected

The conditions related to this topic are provided at the end of this call and in the General Annexes.

ICT 6 – 2014: Smart optical and wireless network technologies

Specific Challenge: Network traffic is expected to keep on showing two-digits annual growth rates in all network segments over the coming years and beyond. The limits of existing technological approaches for both optical and wireless technologies are about to be reached. As far as access networks are concerned, the cost of current solutions also represents a barrier to reaching a (quasi-) universal coverage with ultra-high speed, be it with optical or wireless access. New challenges imposed by major trends in the usage of communications networks are to be taken into account as well as the high projected increase of mobile and ubiquitous broadband access which requires further developments in backhaul networks, for which optical and wireless technologies constitute key enablers.
In the specific wireless domain, spectrum is a scarce public resource whose usage is often strategic for the economy and society, which must be optimised in view of the expected exponential traffic and usages growth as outlined in the Commission Communication on

conditions

Conditions for these calls

For all topics within the two ICT calls, the following apply:

If indicated in the specific challenge description, the Commission considers that proposals requesting a contribution in the brackets indicated below for *Small* or *Large* would allow the specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts:

- *Small contribution*: Contribution from the EU of between EUR 2 million and EUR 4 million
- *Large contribution*: Contribution from the EU of between EUR 5 million and EUR 8 million

The projects funded under the two ICT calls of the Work Programme 2014-15 will participate in the Pilot on Open Research Data in Horizon 2020 in line with the Commission's Open Access to research data policy for facilitating access, re-use and preservation of research data. Projects have the possibility to opt out of the Pilot. A related new element in Horizon 2020 is the use of Data Management Plans (DMPs) detailing what data the project will generate, whether and how it will be exploited or made accessible for verification and re-use, and how it will be curated and preserved. The use of a Data Management Plan is required for projects participating in the Open Research Data Pilot. Further guidance on the Open Research Data Pilot is made available on the Participant Portal.

H2020-ICT-2014

Publication date:	11 December 2013.
Opening:	11 December 2013 except topic ICT37 that opens on 01/03/2014[35] for phase 1 and phase 2 and topic ICT14 that opens on 15 July 2014[36].
Deadline(s)[37, 38]:	at 17.00.00 Brussels time on the following dates

[35] The Director-General responsible may delay this date by up to two months.

[36] The Director-General responsible may delay this date by up to two months

[37] The Director-General responsible may delay these deadlines by up to two months

[38] The deadlines provided in brackets are indicative and subject to a separate financing decision for 2015.

conditions

All Topics except ICT14.a, ICT14.b, ICT14.c, ICT37	23 April 2014			
ICT14a, ICT14.b, ICT14.c	25 November 2014			
ICT37 [SME instrument] Open call cut-off dates	Phase 1 18/06/2014 24/09/2014 17/12/2014	Phase 2 09/10/2014 17/12/2014	Phase 1 [18/03/2015 17/06/2015 17/09/2015 16/12/2015]	Phase 2 [18/03/2015 17/06/2015 17/09/2015 16/12/2015]

Overall indicative budget: EUR 703.5 million, of which EUR 694.5 from the LEIT-ICT part 2014 budget[39] and EUR 9 million from the LEIT-NMP part 2014 budget[40] and EUR 170 million from the LEIT-ICT part 2015 budget[41]

All single stage		2014 EUR million	2015 EUR million
Smart Cyber-Physical Systems	ICT1.a	37	
	ICT1.b	17	
	ICT1.c	2	
Smart System Integration	ICT2.a	35	
	ICT2.b	9	
	ICT2.c	3	
	ICT2.d	1	
Advanced Thin, Organic and Large Area Electronics (TOLAE) technologies	ICT3.a	17	
	ICT3.b	15.5	
	ICT3.c	3	
	ICT3.d	2.5	
Smart Networks and novel Internet Architectures	ICT5	24	
Smart optical and wireless network technologies	ICT6.a	29	
	ICT6.b	1	
Advanced Cloud Infrastructures and	ICT7.a	66	

[39] Subject to the availability of the appropriations provided for in the draft budget for 2014 after the adoption of the budget for 2014 by the budgetary authority or if the budget is not adopted as provided for in the system of provisional twelfths.

[40] Subject to the availability of the appropriations provided for in the draft budget for 2014 after the adoption of the budget for 2014 by the budgetary authority or if the budget is not adopted as provided for in the system of provisional twelfths.

[41] The budget amounts are indicative and will be subject to a separate financing decision to cover the amounts to be allocated for 2015.

conditions

Evaluation procedure: The procedure for setting a priority order for proposals with the same score is given in part H of the General Annexes.

The full evaluation procedure is described in the relevant guide associated with this call.

- Indicative timetable for evaluation and grant agreement:

	Information on the outcome of the evaluation (*single or first stage*)	Information on the outcome of the evaluation (*second stage*)	Indicative date for the signing of grant agreements
All topics except ICT37 (SME instrument)	Maximum 5 months from the final date for submission	-	Maximum 3 months from the date of informing applicants
ICT37 [SME instrument]	Two months after the corresponding cut-off date set out above for phase 1 and four months after the corresponding cut-off date set out above for phase 2.		One month from the date of informing applicants in phase 1 and two months from the date of informing applicants in phase 2.

Consortium agreement: In line with the Rules for Participation and the Model Grant Agreement, participants in Research and Innovation Actions, in Innovation Actions and, in the case of two or more SMEs submitting a proposal, also participants to SME Instruments proposals are required to conclude a consortium agreement prior to grant agreement.

Financial support to third parties:

ICT1.b, ICT11.a, ICT15.a	In view of the implementation of financial support to third parties, the proposal shall clearly detail the objectives and the results to be obtained and include at least the following elements: - a fixed and exhaustive list of the different types of activities for which a third party may receive financial support, - the definition of the persons or categories of persons which may receive financial support, - the criteria for awarding financial support and the criteria for calculating the exact amount of the financial support, - the maximum amount to be granted to each third party and the criteria

What is a consortium

- The basic requirement for proposals: at least 3 different organisations from 3 different EU Member States or Associated Countries
- Most projects have more than this, ~10-20 is normal
- Different actors in the consortium bring different competencies, facilities, networks and experience
- Diversity is an advantage (country, sector, gender, economy, experience, etc.)
- One partner is the *coordinator* (i.e. project manager), usually experienced
- Selected other partners can be scientific leaders

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Proposals

- These are large projects… hence many technical requirements for the proposal
- However, your European partners (especially the coordinator) will do *most* of the work
- You need to know how much your involvement will cost (regardless of whether you get EC funding or not)
    - (Aus/NZ) You need to have a robust funding plan for your involvement that doesn't involve €
    - Note that it is usually acceptable to request budget for your travel to Europe (maybe another partner has this budget in their component)

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Proposals

- Each project is divided into *work packages*, to help micromanage the project via
  - Deliverables
  - Milestones
- One work package must include training, knowledge transfer and dissemination

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Relationships

- Most partners know some or all of the other partners
  - Trust is critical
  - Experience with delivering on such projects
- Many third country partners are never invited, simply because many European researchers simply don't consider the possibility
  - … reach out to your European colleagues… ask them to include you

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Thank you

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