



H2020-ICT-2014 and H2020-ICT-2015

Overview of ICT 15 - ICT 16 - ICT 17 Funding Opportunities

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The new Framework Programme

- H2020 is the financial instrument implementing the *Innovation Union*, a *Europe 2020* flagship initiative aimed at securing Europe's global competitiveness
- H2020 is NOT business as usual (i.e. a mere continuation of FP7)
- H2020 transitioned from R&D to Research and **Innovation** (R&I)
- H2020 is aimed at bringing great ideas from the lab to the **market**



H2020-ICT-2014

ICT 15 Big Data and Open Data Innovation and Take-up

- a) Innovation Actions (Collaborative Projects)
- b) Coordination and Support Actions

Budget

- a) 39 M€
- b) 11 M€

Deadline: 23 April 2014, 17:00 Brussels time

***Innovation actions* (as describe in the H2020 Work Programme)**

- Actions primarily consisting of activities directly aiming at producing plans and arrangements or designs for new, altered or improved products, processes or services.
- For this purpose they may include prototyping, testing, demonstrating, piloting, large-scale product validation and market replication.



ICT-15: the overall goal

Help EU companies build innovative multilingual data products and services by addressing systemic and technological barriers.

Develop/deploy technologies that will increase the competitiveness of European companies and organizations that have to deal with vast amount of data.

ICT-15 Collaborative Projects

- a.1) European data integration and reuse Incubator (*1 CP to be funded*)
- a.2) Innovation and technology transfer projects in multilingual data harvesting and analytics solutions and services (*several CPs to be funded based on budget availability*)

ICT-15 a.1) EU data Incubator

- 1 CP establishing a European open data integration and reuse **incubator** for **SMEs** to foster the development of **open data supply chains** and to educate and assist new users.
- A concept similar to the UK's Open Data Institute, but the EU DI will focus on EU open data also emphasising its integration with commercial/private datasets.
- The incubator will:

ICT-15 a.1) EU data Incubator

- Identify opportunities to establish (open+private) data supply chains
- Remove the barriers (technical, organizational) to the reuse of EU open data integrated with private data assets
- Attract participation of EU companies contributing (their own) data to the incubator as the basis for innovative applications
- Attract and manage SMEs interested in business or technology innovation

ICT-15 a.1) EU data Incubator

- Link to existing Open Data Portals (EU, national, regional) and open data incubators (national, regional)
- Spin-off mini projects building experiments and proofs-of-concept for business models and value-adding chains based on reuse of data.

This action involves financial support to third parties selected through open calls (conditions apply, see Part K of the general Annexes)

ICT-15 a.1) EU data Incubator

- Minimum 70% of the EU funding has to be allocated to fund the mini projects
- Mini projects to run for 6 to 12 months
- Mini project budget range: ~ 50.000-150.000 € (amount of funding typical of seed venture capital)
- Run well advertised call for proposals for to attract mini projects

ICT-15 a.2) Innovation and technology transfer projects

- CPs focused on innovation and technology transfer in multilingual data harvesting and analytics solutions and services.
- Cross sector, cross borders and/or cross lingual
- Have a clear business focus with a market validation strategy
- Consortia steered by a core of companies providing the business goals and requirements



ICT-15 a.2) the challenges

Innovation: to improve existing business process or open new business opportunities

Usability: to build it for end-users, not for data experts

Robustness: to build it for real world use, outside the lab

ICT-15 a.2) Innovation and technology transfer projects

Non-prescriptive Work Programme text but...the following are hard requirements

- This is about **innovation**, not research
- Forget the 'use case' wording/approach of the past: the business requirement is where to start from, not an afterthought
- Project size and duration 'fit for purpose', no artificial constructions

ICT-15 b): CSAs

1. Effective exchange and reuse of data assets (1 CSA)
2. Design and coordination of EU skills centres for big data technologies and business development (1 CSA)
3. Creation of a Big Data integrator platform in support of H2020 user communities (1 CSA)

ICT-15 b.1) Effective Exchange and Reuse of Data Assets

- Lay the foundation for effective exchange and reuse of data assets (including those controlled by the data subject) across: industry sectors, national boundaries and language barriers, public and private sectors
- Define legal and contractual framework to foster the exchange of data assets and set up pilots of a self-sustaining data market

ICT-15 b.2) Network of EU Skills Centres for Big Data

- Design and coordinate network of EU skills centres for big data technologies and business development
- Identify skills gaps in European industrial landscape
- Produce curricula and documentation for training of European data analysts and business developers, capable of (co)operating across national borders on the basis of a common vision and methodology

ICT-15 b.3) Big Data Integrator

Goal:

- Coordinate and consolidate relevant technology and user communities in any actions supported in H2020 addressing or making use of Big Data

Expected impact:

- Effective networking and consolidation of Big Data user and contributor communities, technology providers and other relevant stakeholders across all challenges and across the three pillars of H2020

ICT-15 Technical Background note

- http://ec.europa.eu/digital-agenda/events/cf/ict2013/document.cfm?doc_id=26738

H2020-ICT-2015

ICT 16 Big Data Research

- a) Innovation Actions (Collaborative Projects)
- b) Coordination and Support Actions

Budget

- a) 38 M€ * [Call opening: 15/10/2014](#)
- b) 1 M€ *

Deadline: 14 April 2015, 17:00 Brussels time

*indicative and subject to separate 2015 decision

H2020-ICT-2015

- “big data” is when the size of the data itself becomes part of the problem
- “big data” is data that becomes large enough that it cannot be processed using conventional methods
- 3Vs! (think about the challenges 3 years ahead!)

ICT-16 a.1) Research and Innovation actions

Collaborative projects to develop novel data structures, algorithms, methodology, software architectures, optimisation methodologies and language understanding technologies for carrying out data analytics, data quality assessment and improvement, prediction and visualization tasks at extremely large scale and with diverse structured and unstructured data. Of specific interest is the real time cross-stream analysis of very large numbers of diverse, and, where appropriate, multilingual, multimodal data streams.



ICT-16 a.2) R&I , Benchmarks

Collaborative projects to define relevant benchmarks in domains of industrial relevance, assemble the data resources and infrastructure necessary for administering and validating the benchmarks and organise evaluation campaigns with a commitment to producing public reports on the performance of participants against the defined benchmarks. Since the goal is to create big data analysis and prediction benchmarking environments of sufficient general usefulness to be able to become self-sustaining after the end of funding.

ICT-16 b) Support Actions

Support actions to define challenges and prize schemes for verifiable performance in tasks requiring extremely large scale prediction and deep analysis. Compact consortia are required to organise and run well-publicised fast turn-around prediction competitions based on European datasets of a significant size.

ICT-16 b) Support Actions

Prize money

- Must be explicitly budgeted as cost of activity
- Can only be awarded to entities that are eligible for funding under H2020
- Skills and appetite for community, communications work
- Job of consortium is to administer the prize (not do research on its own)

ICT-16: What we will be looking for

The availability for testing and validation purposes of extremely large and realistically complex European data sets and/or streams is a **strict requirement** for participation as is the availability of appropriate populations of experimental subjects for human factors testing in the domain of usability and effectiveness of visualizations

ICT-16: What we will be looking for

Proposal must clearly state (ideally in a dedicated, easy to find, table):

- Which datasets: what type of data do they contain? how big are they now? How fast do they grow?
- When: must be available at the very beginning of the project. Additional data at M6, M12, M18...?
- From whom: which partner(s) of the consortium have which access rights?

ICT-16: What we will be looking for

- Can I use Twitter, Flickr, ...? No. Not primarily
- Ecologically valid (i.e. operational) data from European companies
- Data sets from EU open data portals
- Data sets from other EU public sources, e.g. Copernicus <http://www.copernicus.eu> see http://europa.eu/rapid/press-release_IP-13-1067_en.htm



H2020-ICT-2014

ICT 17 Cracking the language barrier

- a) Research and Innovation Actions, budget 4 M€
- b) Innovation Actions, budget 10 M€
- c) CSA, budget 1 M€

Deadline: 23 April 2014, 17:00 Brussels time



ICT-17: the overall goal

To facilitate multilingual online communication for the benefit of the digital single market which is still fragmented by language barriers that hamper a wide penetration of cross-border commerce, social communication and exchange of cultural content.

Current machine translation solutions typically perform well only for a limited number of target languages, and for a given text type.



ICT-17 a) Research and Innovation Action

- new paradigm leading to radically improved quality and coverage (in terms of languages and text types) of machine translation.
- focus on points where current systems fail (quality, adaptation, expensive to improve, need of large not available corpora...)
- test & validate against agreed benchmarks
- use existing and emerging structures (developed under CSA)
 - high quality = full compliance with user requirements
 - preferably language independent approach
 - focus on difficult target languages
 - research focus but clear innovation potential

ICT-17 b) Innovation Actions

- test, validate, evaluate quality improvement in realistic use situations - experiment opportunities for new approaches to automatic translation
- pilots in high-quality fully-automatic machine translation in any application area
- use situations: possibly online services, CEF, other digital infrastructures, e-commerce... → bottlenecks in digital single market

...ICT-17 b) Innovation Actions

- address "poorly served" languages
- connect, contribute & make use of platforms and infrastructures for language resources, open data...
- limited research and development activities are possible

ICT-17 c) CSA

- To promote a common infrastructure for MT benchmarking
- To promote optimal use of language resources from various sources (Member States, internet, business, research, administrations...)
- organisational and coordination aspects between all projects & actions in MT & LR area in all phases of lifecycle (research & innovation in H2020, deployment in CEF...)



Last but not least

- H2020's **Societal Challenges** are rich of data-related opportunities



Thank you!

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