



# Background note

## Horizon 2020

Last update 8 March 2012

### Horizon 2020: the Future Common Strategic Framework for EU research and Innovation Funding

The proposed Framework Programme for Research and Innovation, which will enter into force in 2014, will bring together the current Framework Programme for Research (FP7), the Competitiveness and Innovation Framework Programme (CIP) and the European Institute of Innovation and Technology (EIT). It will also include mainstreamed funding to support the EU's Innovation Union. The set of proposals for Horizon 2020 consists of:

- a proposal for Horizon 2020, laying down the general objectives
- a proposal for a single specific programme to implement Horizon 2020, laying down the implementation modalities and the content in terms of the broad lines of activities;
- a proposal for a single set of Rules for Participation and Dissemination, laying down the modes of funding and reimbursement of costs, conditions for participation, selection and award criteria and the rules on ownership, exploitation and dissemination of results;
- a separate proposal for the part of Horizon 2020 focussing on nuclear research
- a separate proposal revising the regulation governing the activities of the European Institute for Research and Innovation.<sup>1</sup>

The programme will be more streamlined than current funding schemes, and will be implemented through a set of harmonised rules and procedures. This way, research and innovation activities will be coupled together coherently, and the impact of EU funding will be increased. Horizon2020 intends to maximise the contribution of EU funded research and innovation to the EU2020 objectives. The total proposed budget for Horizon 2020 is Eur 80bln. Horizon2020 will be implemented through three priorities:

- **Part I: Excellence in the science base (26% of proposed Horizon2020 budget).** This block will aim at developing talent within Europe and attracting leading researchers to Europe. The emphasis will be on:
  - stronger support for frontier research (through the European Research Council);
  - future and emerging technologies;
  - skills, training and career development of researchers (Marie Curie Actions);
  - networking of, access to, and development of priority research infrastructures.
- **Part II: Creating industrial leadership and competitive frameworks (30% of proposed Horizon2020 budget).** This objective will aim at supporting and promoting business research and innovation in enabling technologies, services and emerging sectors with a strong focus on leveraging private sector investment in R&D, and to address SME-specific problems. It will be

<sup>1</sup> All documents constituting the Horizon 2020 proposal can be found here: [http://ec.europa.eu/research/horizon2020/index\\_en.cfm?pg=h2020-documents](http://ec.europa.eu/research/horizon2020/index_en.cfm?pg=h2020-documents)

achieved by creating a coherent set of instruments, along the whole "innovation chain", from basic research to bringing in innovative products and services to market, as well as support non-technological innovation, like in design and marketing. Priority actions will cover:

- increasing strategic investments and leadership in current and future enabling and industrial technologies and services, with dedicated support for ICT, nanotechnology, biotechnology, and advanced materials, manufacturing and processing; convergence across and between the different technologies will be strengthened;
- space research and innovation and low carbon and adaptation technologies, with particular regard to ensuring an integrated approach to key enabling technologies;
- facilitating access to risk finance and venture capital (building on the FP7 Risk Sharing Finance Facility and CIP financial instruments);
- **Part III: Tackling societal challenges (44% of proposed Horizon2020 budget)**. To respond directly to the challenges identified in the Europe 2020 strategy, activities covering the entire spectrum from research to market will be supported. This include innovation actions (pilots, demonstration, test-beds, support to public procurement and market uptake of innovation), cross-disciplinary approaches, and socio-economic and humanities research. The focus will be on:
  - health, demographics changes and well-being -including active ageing, independent and assisted living;
  - food security and the bio-based economy;
  - smart, green and integrated transport, including
    - Improving transport and mobility in urban areas
    - Substantial reduction of traffic congestion
    - Substantial improvement in the mobility of people and freight;
  - Climate Change and resource-efficiency, including raw materials, focusing on
    - Climate Change adaptation
    - Providing knowledge & tools for effective decision making and public engagement;
  - Secure, clean and efficient energy
    - Bring to market technologies and services for smarter and more efficient energy use
    - Unlock the potential of efficient and renewable heating-cooling systems
    - European Smart Cities and Communities;
  - and, inclusive, innovative and secure societies
    - Building resilient and inclusive societies in Europe
    - Closing the research and innovation divide
    - Strengthening the evidence base for the Innovation Union and European Research Area
    - Supporting new forms of innovation, including social innovation and creativity
    - Innovation in smart digital public services
    - Ensuring societal engagement in research and innovation.

A further Part IV deals with the activities of the European Commission's Joint Research Centre (JRC), which provides scientific support to European Union institutions.

Full details on the content and implementation of the individual activities above can be found in Annex I of the proposed Council Decision establishing Horizon 2020 (p.26-89 - <http://bit.ly/t1CWjO>).

## European Institute of Technology and Innovation (EIT)

As part of the Horizon2020 budget, the EIT (<http://eit.europa.eu/>) has proposed to set up new Knowledge and Innovation Communities (KICs) in two phases:

- The first group, to be set up in 2014, will have the following themes: innovation for healthy living and active ageing; food4future (sustainable food supply chain, from farm to fork); raw materials (sustainable extraction, processing, recycling and substitution of raw materials).
- The next wave of KICs, to be established in 2018, will focus on: added value manufacturing (developing more competitive, sustainable and environmentally-friendly manufacturing processes); smart secure societies; and urban mobility (delivering a greener, more inclusive, safer and smarter urban mobility system).

## Links between Cohesion Policy and Horizon 2020

The Commission is proposing a clear division of labour between cohesion policy and Horizon 2020. Current capacity building in Research & Innovation like Regions of Knowledge would be cut or moved to Cohesion Policy.

- **Cohesion policy:** provide capacity building and support for regions in building up their research and innovation capacity through ERDF and European Territorial Cooperation
- **Horizon 2020:** Focussing on raising excellence, implemented through open competition and independent reviews regardless of geographical location of the involved actors. A specific programme would focus on "closing the innovation divide".

This might mean a net gain of Research & Innovation spending in more developed and transition regions. However this net gain will not be accessible under Horizon 2020 competitive bidding with possible 100% direct costs, but rather left to thematic focus of individual operational programmes. Cities would have to work through the managing authorities of their Operational Programmes. Furthermore, in convergence regions the funding available for innovation and research might be substantially lower, as investments in R&I are less prioritised for these regions within the current proposal on Cohesion Policy.

**Transnational capacity building** would be restricted to interregional cooperation under the European Territorial Cooperation objective. It remains unclear however how this would provide for cooperation between research-driven clusters of regional and local authorities, universities, research centres and companies - as it is the case in the current Regions of Knowledge programme.

Within Horizon 2020, a specific programme would look at **lowering regional disparities in research and innovation performance**. This would include

- Linking in a competition emerging institutions, centres of excellence and innovative regions in less developed Member States to international leading counterparts elsewhere in Europe, financed partly through Cohesion Policy.
- Establishing 'ERA Chairs' to attract outstanding academics to institutions with a clear potential for research excellence, in order to help these institutions fully unlock this potential and hereby create a level playing field for research and innovation in the European Research Area.
- Supporting access to international networks for excellent researchers and innovators who lack sufficient involvement in European and international networks.

- Supporting the development and monitoring of smart specialisation strategies through a specific policy support facility.

### Funding instruments

Actions financed under Horizon2020 will be implemented using the below set of funding instruments

- **Research and innovation grant** (principal funding scheme for Horizon2020) - Actions may cover all or some parts of the innovation & research activities, including fundamental research, industrial R&D, training, mobility and career development, dissemination, demonstration, pilots, testing and user involvement, market replication, support to research & innovation infrastructures, standard setting, networking and coordination.
- **Training and mobility grant** - Funding to single beneficiaries, funding bodies or consortia to undertake activities focussing on training, mobility and career development of researchers.
- **Programme co-fund grant** - Funding to bodies managing non-Union research & innovation programmes to support activities including networking and coordination between programmes in different countries.
- **Coordination and support grant** - Funding for accompanying measures other than procurement contracts, notably: dissemination, awareness raising and communication actions; networking, coordination or support services; policy dialogues and mutual learning exercises and expert support (for instance for evaluation, assessment or review), studies.
- **Debt finance and equity investment** - Debt facility will provide loans for investment in R&I, guarantees to beneficiaries offering loans in research & innovation, and guarantees for national and regional debt-financing in R&I. Equity facility will provide venture capital to individual enterprises during start-up phase.
- **Prizes** - Prizes may take the form either of a reward for past achievements or of inducement prizes to be awarded for the achievement of a pre-specified target. Prizes can have an open date for submission.
- **Procurement** - Contracts in order to obtain, against payment of a price the supply of movable or immovable assets, the execution of works or the provision of services. This may include
  - Public pre-commercial procurement -procuring R&D services which involve risk-benefit sharing under market conditions with clear separation of the R&D phase from deployment of commercial volumes of the end-product.
  - Public procurement of innovative solutions, where contracting authorities act as a launch customer for innovative goods or services which are not yet available on a large-scale commercial basis.

### Origin and Current Status

- June 2010 - adoption of Europe 2020 Strategy
- October 2010 - Innovation Union flagship initiative as part of Europe 2020 (COM (2010) 546 final)
- November 2010 - Interim evaluation of FP7 and CIP
- February 2011 - Green Paper 'Towards a Common Strategic Framework' (COM (2011) 48)
- February 2011 - EUROCITIES comments on Green Paper 'Towards a Common Strategic Framework'
- June 2011 - Multiannual Financial Framework proposal for 2014-2020
- September 2011 - Communication on Partnering in Research and Innovation (COM(2011) 572 final)
- 30 November 2011 -
- 30 November 2011 - Publication of Horizon2020 proposals, in particular
  - Communication from the Commission Horizon 2020 - The Framework Programme for

#### Research and Innovation (COM(2011) 808 final)

- Proposal for a Regulation of the European Parliament and Council establishing Horizon 2020 - the Framework Programme for Research and Innovation (2014-20) (COM(2011) 809 final)
- Proposal for a Regulation of the European Parliament and Council laying down the rules for the participation and dissemination in Horizon 2020 (COM(2011) 810 final)
- Proposal for a Council Decision establishing the Specific Programme implementing Horizon 2020 (COM(2011) 811 final)
- January 2012 - First Exchange of view and nomination of rapporteurs in European Parliament
  - Horizon 2020 Framework (2011/0401) Riera Madurell (S&D/ES)
  - Horizon 2020 Specific Programme (2011/0402) Carvahlo (EPP/PT)
  - Rules for Participation (2011/0399) Ehler (EPP/DE)
  - EIT Strategic Innovation Agenda (2011/0387) Matias (GUE/PT)
  - EIT Regulation (2011/0384) Lamberts (Greens/BE)
- 27/28 February 2012 - Second exchange of views in Parliaments Industry Committee (ITRE)

#### Next Steps

- Timetable at the Committee of the Regions (CoR):
  - Working document 23 April 2012
  - Plenary 18-19 July 2012
- Provisional timetable in European Parliament:
  - Public hearing 20 March 2012
  - Possible joint hearing cohesion policy/H2020 29 May 2012 (tbc)
  - Consideration of draft report 30/31 May 2012
  - Deadline for tabling amendments 7 June 2012 at 12h00
  - Consideration of amendments 10/11/12 July 2012
  - 2nd consideration of amendments (+ compromises) 24 September 2012
  - Vote ITRE 8/9 October 2012
  - Vote plenary November 2012
- By end 2013: Adoption of legislative acts by Parliament and Council on Horizon 2020
- 2014: Horizon 2020 starts

#### Further info

Horizon2020 website: [http://ec.europa.eu/research/horizon2020/index\\_en.cfm](http://ec.europa.eu/research/horizon2020/index_en.cfm)

EUROCITIES response to the consultation on the Green Paper on a Common strategic framework for EU research and innovation funding:

[http://ec.europa.eu/research/horizon2020/pdf/contributions/post/european\\_organisations/eurocities.pdf#view=fit&pagemode=none](http://ec.europa.eu/research/horizon2020/pdf/contributions/post/european_organisations/eurocities.pdf#view=fit&pagemode=none)

Innovation Union: [http://ec.europa.eu/research/innovation-union/index\\_en.cfm](http://ec.europa.eu/research/innovation-union/index_en.cfm)

Europe 2020: [http://ec.europa.eu/europe2020/index\\_en.htm](http://ec.europa.eu/europe2020/index_en.htm)

FP7: [http://ec.europa.eu/research/fp7/index\\_en.cfm](http://ec.europa.eu/research/fp7/index_en.cfm)

CIP: <http://ec.europa.eu/cip/>

EIT: <http://eit.europa.eu/>

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