UKRO Horizon 2020 Condensed

The basics

Horizon 2020 is the EU’s main funding programme for research and innovation and will run from 2014 to 2020. This factsheet provides a general introduction for individual researchers who might be interested in applying for funding. Horizon 2020 is due to start on 1 January 2014.

Horizon 2020 structure

What is Horizon 2020 and who should apply?

Horizon 2020 is a funding programme for all types of actors involved in research and innovation – academia, research, industry and other stakeholder organisations.

Horizon 2020 contains a number of different funding programmes and mechanisms, and is based on a structure of three pillars. There are opportunities for individual researchers and groups of researchers to apply for funding in each of these pillars. The choice of pillar and underlying programme depends on what a researcher is looking for funding for in terms of the size of the planned project, whether it is basic or applied or whether someone is interested in moving to another country.
A short word of caution before you continue reading – Horizon 2020 represents EU funding for research and innovation on a larger scale. The EU does not provide funding for occasional travel for research meetings, or smaller stand-alone conferences or workshops. EU funding has also become more and more competitive over recent years, so before investing a lot of work into proposal planning and submission we would recommend that you discuss the opportunities with your local research support officers. This will help you determine whether and where your project idea might fit in Horizon 2020. You can also speak to your UKRO European Advisor on how your funding needs would be best met.

**Pillar 1 – Excellent Science**

Under Excellent Science, four different schemes are available, largely for bottom-up funding for individual researchers or teams.

- The European Research Council (ERC) provides funding for excellent researchers at different stages of their career.
- Future Emerging Technologies (FET) is a funding mechanism for collaborative ‘high risk’ research under three different streams, FET Open, FET Proactive and the FET Flagships.
- The Marie Skłodowska-Curie Actions (MSCA) fund mobility, training and career development in academia, industry and other non-academic sectors through individual mobility grants and projects.
- Research Infrastructures includes funding for e-infrastructures and access to infrastructures for researchers.

**Pillar 2 – Funding Innovation**

Under this pillar, funding is available for the so-called Key Enabling Technologies (KETs), including ICT, Nanotechnologies, Advanced Materials, Biotechnology, Advanced Manufacturing and Processing and for research and innovation in the area of Space. In addition, there are two more industry oriented schemes available. Overall, this is probably the most industry and innovation focussed part of Horizon 2020 with many opportunities for applied research, especially under the KETs.

Under pillar two, there is also funding for the so-called ‘contractual Public-Private Partnerships’ (PPPs). Under these, there will be a range of topics with strong industry and market relevance focus.
Pillar 3 – Tackling Societal Challenges

Seven societal challenges have been identified under pillar 3:

1. Health, demographic change and wellbeing
2. Food security, sustainable agriculture, marine and maritime research and the bio-economy
3. Secure, clean and efficient energy
4. Smart, green and integrated transport
5. Climate action, resources and raw materials
6. Inclusive, innovative and reflective societies
7. Secure societies

Funding under this pillar is predominantly for collaborative projects, following a more top-down approach with two-year work programmes of defined, challenge-based topics. Usually, a minimum of three legal entities from three EU Member States participate in these projects.

Given that the overall aim of this pillar is to tackle Societal Challenges, most projects will require a broader approach in terms of disciplines and might require the inclusion of different stakeholders. If you are a researcher from the Social Sciences and Humanities (SSH) area, you will find that it is worth looking beyond Challenge 6, as all other challenges will also identify areas where input from SSH is relevant.

European Institute of Innovation and Technology

The European Institute of Innovation and Technology (EIT) aims at integrating the so-called ‘knowledge triangle’ of higher education, research and innovation. The EIT does this by funding Knowledge and Innovation Communities (KICs), which are large long-term projects bringing together organisations from all parts of the knowledge triangle. KICs focus on a major societal challenge, with a view to turning them into entrepreneurial opportunities in terms of products and services. There are three existing KICs (Climate KIC, ICT Labs and Inno-Energy) and calls for five more are planned under Horizon 2020 (on healthy living, raw materials, food security, manufacturing and urban mobility).
Other aspects

The Social Sciences and Humanities (SSH) and ICT will be mainstreamed across all of Horizon 2020. In addition, there will be measures under Widening Participation with the aim of building more excellence in less developed EU regions. Under the Science with and for Society, projects will look into issues such as gender equality in research, researcher career development, science education and the dissemination of scientific results.

Horizon 2020 also includes EURATOM, which funds activities in the fields of fusion energy research and nuclear fission and radiation protection. The Joint Research Centre (JRC) is the Commission’s own research centre with institutes across Europe. These normally do not provide funding but produce studies in different fields on behalf of the Commission.

Funding, eligibility and project details

Funding rates for Horizon 2020 have been harmonised compared to its predecessor programme FP7. All beneficiaries are now entitled to a reimbursement of 100% of their direct costs related to a research project, with a single flat rate for indirect costs of 25%. For the so-called innovation actions (close-to-market activities, usually with a stronger industry focus), the general reimbursement rate is 70% (100% for non-for-profit entities).

What is funded?

What is funded exactly depends on the project type. The most common project type is a Collaborative Project (CP), which usually requires a minimum of three participants from three different EU Member States or the countries that are associated to Horizon 2020. CPs fund research activities including personnel costs, travel, consumables, management costs and dissemination.

There are other project types, such as the Co-ordination and Support Actions (CSAs), which do not fund research as such but fund, for example, the co-ordination of research policies across Member States in a particular field. They sometime fund studies and also occasionally conferences and other networking activities. In addition, the Commission is planning to include prize competitions in the Horizon 2020 work programmes.

Funding is mainly based on the reimbursement of actual direct costs incurred for a project. For some types of projects, such as the MSCA, funding can be based on flat rates and granted as lump sums.

What is the project duration and how many partners do I need?

The duration of projects can vary immensely, a typical small or medium-scale Collaborative Project would usually last 2-4 years, and larger projects could run for 3-5 years. There are no formal limits on project duration imposed under Horizon 2020. The best way to approach project planning is to ensure that projects are underpinned by solid time planning with clear milestones and objectives. Minimum or
maximum budget levels for projects in the Horizon 2020 work programmes can give an indication of the appropriate project duration. There are some exceptions where the duration of a project or grant is specified or suggested.

How many partners should be involved and which countries should be included in a project mainly depends on what you judge is most appropriate for the work you are planning to undertake. Again, there are no fixed rules as such on the maximum, but there are usually minimum requirements in terms of the number of partners and sometimes also the types of organisations in the project. We would also recommend that you look at projects funded under FP7 in your area to see some examples.

**Likely call timings**

The first Horizon 2020 calls are likely to be launched in early/mid December 2013. These would be the ‘2014’ calls followed by annual calls until 2020. Most calls will be launched at the same time, but certain calls will be launched at later dates during the year. Once dates are available, the UKRO Portal will provide a call calendar. After a call is launched, researchers usually have between 2-3 months until the deadline to prepare their proposals. In some cases, the Commission publishes early drafts of work programmes (which include topic outlines but usually not on budget and funding) before the official publication.

Depending on the area of Horizon 2020, it is possible that several calls are launched within a Societal Challenge for example, or that there is just one single call. There will also be cross-cutting calls with topics from different Societal Challenge areas but grouped under one overarching theme, such as ‘Blue Growth’ or ‘Smart Cities and Communities’.

**The 2014/15 Work Programme and relevant EU policy**

The 2014/15 Work Programme for Horizon 2020 will be the overarching document, containing individual work programmes for each part of Horizon 2020. The Work Programme will link back to major EU policies relevant to research and innovation, such as the ‘Europe 2020 strategy’ and the ‘Innovation Union’, or the goal of achieving the European Research Area. More information on these policies is available on the UKRO Portal.

Unlike in FP7, where most work programmes covered only one year, the first Horizon 2020 work programmes will cover two years. The main Horizon 2020 Work Programme will contain details of a number of focus areas, which will in turn be reflected in the individual work programmes and cut across the Societal Challenges.
Possible focus areas include:

- Sustainable food security
- Smart cities and communities
- Water innovation
- Disaster resilience
- Waste
- Blue growth
- New ideas for Europe
- Energy Efficiency
- Digital security
- Mobility for growth
- Competitive low-carbon energy
- Personalising health and care
- Smart cities and communities
- Water innovation

More information

- European Commission Horizon 2020 website (http://ec.europa.eu/research/horizon2020/index_en.cfm)
- To find examples of FP7 projects that are already funded (http://cordis.europa.eu/fp7/projects_en.html)
- Sign up to the UKRO Portal News to stay up to date on Horizon 2020 general developments, calls, events and results (http://www.ukro.ac.uk/subscriber/Pages/default.aspx).
- Use the Portal search function, for example using ‘Horizon 2020’, to find previously published articles (http://www.ukro.ac.uk/Search/advanced.aspx).
- For specific questions, contact your UKRO European Advisor (http://www.ukro.ac.uk/subscriber/ukro_info/Pages/staff_contacts.aspx)