**Horizon 2020 Briefing Sheet – Objectives and Principles of ERC Funding**

Horizon 2020 is the EU’s main funding programme for research and innovation and will run from 2014 to 2020. The full call documents for the Horizon 2020 funding are expected to be launched in January 2014. However, we have been able to get hold of some draft documents which indicate the direction the Commission wishes to take.

The university will be running an information day on the new European Funds on Wednesday 11 December 2013 in Stoke. For further information email [externalprojects@staffs.ac.uk](mailto:externalprojects@staffs.ac.uk)

**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. These are for large scale projects.

Activities can be funded under three pillars:

Pillar 1: Excellent Science

Pillar 2: Industrial Leadership

Pillar 3: Societal Challenges

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| This call falls under **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. |

**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 sometimes 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.

**Call areas**

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| ***Physical Sciences & Engineering***  **PE1 Mathematics**  All areas of mathematics, pure and applied, plus mathematical foundations of computer science, mathematical physics and statistics.  **PE2 Fundamental Constituents of Matter**  Particle, nuclear, plasma, atomic, molecular, gas, and optical physics.  **PE3 Condensed Matter Physics**  Structure, electronic properties, fluids, nanosciences, biophysics.  **PE4 Physical and Analytical Chemical Sciences**  Analytical chemistry, chemical theory, physical chemistry/chemical physics.  **PE5 Synthetic Chemistry and Materials**  Materials synthesis, structure-properties relations, functional and advanced materials, molecular architecture, organic chemistry.  **PE6 Computer Science and Informatics**  Informatics and information systems, computer science, scientific computing, intelligent systems.  **PE7 Systems and Communication Engineering**  Electronic, communication, optical and systems engineering.  **PE8 Products and Processes Engineering**  Product design, process design and control, construction methods, civil engineering, energy systems, material engineering.  **PE9 Universe Sciences**  Astro-physics/chemistry/biology; solar system; stellar, galactic and extragalactic astronomy, planetary systems, cosmology, space science, instrumentation.  **PE10 Earth System Science**  Physical geography, geology, geophysics, atmospheric sciences, oceanography, climatology, cryology, ecology, global environmental change, biogeochemical cycles, natural resources management.  ***Life Sciences***  **LS1 Molecular and Structural Biology and Biochemistry**  Molecular synthesis, modification and interaction, biochemistry, biophysics, structural biology, metabolism, signal transduction.  **LS2 Genetics, Genomics, Bioinformatics and Systems Biology**  Molecular and population genetics, genomics, transcriptomics, proteomics, metabolomics, bioinformatics, computational biology, biostatistics, biological modelling and simulation, systems biology, genetic epidemiology.  **LS3 Cellular and Developmental Biology**  Cell biology, cell physiology, signal transduction, organogenesis, developmental genetics, pattern formation in plants and animals, stem cell biology.  **LS4 Physiology, Pathophysiology and Endocrinology**  Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular disease, metabolic syndrome.  **LS5 Neurosciences and Neural Disorders**  Neurobiology, neuroanatomy, neurophysiology, neurochemistry, neuropharmacology, neuroimaging, systems neuroscience, neurological and psychiatric disorders.  **LS6 Immunity and Infection**  The immune system and related disorders, infectious agents and diseases, prevention and treatment of infection.  **LS7 Diagnostic Tools, Therapies and Public Health**  Aetiology, diagnosis and treatment of disease, public health, epidemiology, pharmacology, clinical medicine, regenerative medicine, medical ethics.  **LS8 Evolutionary, Population and Environmental Biology**  Evolution, ecology, animal behaviour, population biology, biodiversity, biogeography, marine biology, eco-toxicology, microbial ecology.  **LS9 Applied Life Sciences and Non-Medical Biotechnology**  Agricultural, animal, fishery, forestry and food sciences, biotechnology, genetic engineering, synthetic and chemical biology, industrial biosciences; environmental biotechnology and remediation.  ***Social Sciences & Humanities***  **SH1 Individuals, Institutions and Markets**  Economics, finance and management.  **SH2 Institutions, Values, Beliefs and Behaviour**  Sociology, social anthropology, political science, law, communication, social studies of science and technology.  **SH3 Environment, Space and Population**  Environmental studies, geography, demography, migration, regional and urban studies.  **SH4 The Human Mind and Its Complexity**  Cognitive science, psychology, linguistics, education.  **SH5 Cultures and Cultural Production**  Literature and philosophy, visual and performing arts, music, cultural and comparative studies.  **SH6 The Study of the Human Past**  Archaeology, history and memory. |

**View Full Draft Work Programme**

If you are interested in seeing more details about these funding areas, the External Projects Team has copies of draft documents which outline the research areas the commission are looking to focus on for each theme. The documents cover 2 years.

**Policy**

H2020 still links back to key EU policies including:

* [Europe 2020 strategy](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF)
* [Innovation Union 2012](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2013:0149:FIN:en:PDF)
* [European Research Area](http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/intm/134168.pdf)

**Getting Involved**

The best way to get ahead of the game with these grants is to start talking to people who you could work with on projects and developing your network before the calls come out. The best ways to find contacts is to use existing leads and to talk to colleagues to see if they know anyone you could partner with.

Other ways could be though attending conferences or training courses which have a European audience.

**Useful Contacts**

European Commission Horizon 2020 website <http://ec.europa.eu/research/horizon2020/index_en.cfm>

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>

For in-house support on these grants contact [externalprojectss@staffs.ac.uk](mailto:externalprojectss@staffs.ac.uk)

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