

Future & Emerging Technologies in H2020

20-10-15

The aim of **Future & Emerging Technologies (FET)** is to initiate radically new lines of technology to derive competitive advantage from the science base.

FET will support advanced multidisciplinary science and cutting-edge engineering using a budget of 2,696 million euro over the 7 year period.

Historically The Future and Emerging Technologies (FET) activities have been restricted to the ICT domain. With the advent of H2020, FET now presents its **opportunity across the whole technology domain**

It is located in the Excellent Science pillar with a dedicated workprogramme section.

The programme has three lines of action:

- [FET **Open** supports early-stage joint science and technology research around new ideas for radically new future technologies.
- [FET **Proactive** nurtures emerging themes and structure communities by addressing a number of promising exploratory research themes.
- [FET **Flagships** support ambitious, grand challenges in S&T. Current projects are 'Graphene' and 'Human Brain Project' (HBP).



FET Open - novel ideas for radically new technologies

This scheme solicits brief (16 pages only!) Research & Innovation proposals **at any time**. It funds highly novel projects addressing topics at the front edge of science and technology.

A list of 'Gatekeepers' help to define the sort of projects which it will fund. Successful proposals will exhibit **all** of the following **features**

- [**Long-term vision,**
- [**Breakthrough Scientific & Technological target,**
- [**Novelty,**
- [**Foundational nature**
- [**High-risk,**
- [**Interdisciplinarity**

Proposals for **Research and Innovation Projects** are collected into 6 month long batches [closing at end of May 2016, with further batches foreseen for Jan 2017 and Sept 2017,...] The 16 page proposals within each batch are then evaluated as a group and those with the highest ranked scores proceed to achieve grant agreements with a batch budgets of ~60 M€. This process is very highly competitive.

There are additional small budgets for support actions.

FET Open supports early-stage joint science and technology research for radically new future technological possibilities and is entirely non prescriptive in its coverage.

It is important to **note that the proposal submission rules and formats for FET Open in H2020 are VERY different from those of its earlier existence.**

FET Proactive - emerging themes and communities

This scheme nurtures emerging themes and structure communities by addressing a number of promising exploratory research themes.

It operates by supporting **Research and Innovation actions** - using a single step proposal process, again limited to 16 pages. It focuses on specific topics.

The 2016-17 Workprogramme intends to support the following topics.

Area	Objective
1	Future technologies for societal change
	Being human in a technological world:
	New science for a globalised world
2	Biotech for better life
	Biotech for better life
	Bio-electronic medicines and therapies
	Cognitive neuro-technologies
3	Disruptive information technologies
	New computing paradigms and their technologies
	Quantum engineering
	Hybrid opto-electro-mechanical devices at the nano-scale
4	New technologies for energy and materials
	Ecosystem engineering
	Complex bottom-up construction

It also provides for a number of support actions and Co-Funding opportunities involving additional funding from Member States.

A research action addressing High Performance Computing with a budget of 85M€ is also included.

FET Flagships

FET Flagships are science-driven, large-scale, multidisciplinary research initiatives oriented towards a unifying goal, aiming at transformational impacts on science and technology and substantial benefits for European competitiveness and society. Further details from [here](#)

Links and Documents

<http://ec.europa.eu/digital-agenda/en/news/horizon-2020-future-emerging-technologies-fet-information-day>

[More on FET Open Gatekeepers](#)

<http://www.ictic.org/h/gatekeepers.pdf>