**EN**

## Horizon 2020 Work-Programme 2018-2020

Towards the next Framework Programme for Research and Innovation:

# European Innovation Council (EIC) pilot

Important notice on the Horizon 2020 Work Programme

This Work Programme covers 2018, 2019 and 2020. The parts that relate to 2019 and 2020 are provided at this stage on an indicative basis. Such Work Programme parts will be decided during 2018 and/or 2019.

*(European Commission Decision C(2017)7124 of 27 October 2017)*

## About this document

This is the Work Programme part for the three-year European Innovation Council (EIC) pilot under Horizon 2020, the EU's Framework Programme for Research and Innovation.

**To prepare for applying to an EIC pilot call, please go to the 'EIC pilot Web Page', which will direct you to the most appropriate funding scheme for your needs.**

http://ec.europa.eu/research/eic/index.cfm

**The 'EIC pilot Web Page' will channel you through to the Horizon 2020 participant portal, which contains all the practical information you need to participate as well as details of your National Contact Point, who can give you support in your own language.**

# Summary


The European Innovation Council (EIC) pilot supports innovators developing breakthrough innovations with the potential to create new markets and boost jobs, growth and prosperity in Europe.

| | |
|---|---|
| **SME Instrument** | *Close-to-market and scale-up projects of a single SME or a consortium of SMEs* established in EU Member States or Horizon 2020 associated countries. |
| **Fast Track to Innovation (FTI)** | *Close-to-market projects of consortia* with three to five entities from at least three different EU Member States or Horizon 2020 associated countries. Industry must participate. Interdisciplinary approaches encouraged. |
| **FET Open** | *Early-stage, science and technology research by consortia exploring novel ideas for radically new future technologies that challenge current paradigms and venture into the unknown*. Open to research into any area of technology. Aims to attract new, high-potential research and innovation players. |
| **Horizon Prizes** | *Horizon Prizes boost breakthrough innovation* by fostering solutions to challenges which bring major benefits to society. |

**Support and Exploratory Actions** help to optimise the impact of EU investment in EIC innovators and innovations; they contribute to building an EIC community and a vision underpinning a possible future EIC.

# Contents

# Introduction

The last decade saw the emergence of major new markets and a global platform economy. Today's successful, high-growth innovative enterprises often rely on new business models and technologies emerging at the intersection between sectors and disciplines.

But despite early technology leads, the EU has supported the creation of few companies that shape and capture these new markets. While Europe compares relatively well internationally in terms of numbers of start-ups, too few of these succeed in scaling up and generating the new, high-skilled jobs on which Europe's future depends and which would strengthen Europe's position in the platform economy.

***The EU needs to help improve the conditions enabling the emergence and rapid scale-up of highly innovative enterprises.***

The interim evaluation of Horizon 2020 found that while the programme demonstrates potential in terms of fostering breakthrough, market-creating innovation, support for doing so needs to be substantially strengthened.

This part of the Horizon 2020 work-programme aims to do just that. It contains a package of actions, which were previously fragmented over different parts of the work programme. At the same time, reforms have been introduced to boost impact[1].

These actions represent a pilot phase for a European Innovation Council (EIC)[2] that is being considered for the next EU research and innovation programme. They provide support with no thematic restrictions to innovative firms and entrepreneurs with the potential to scale up rapidly at European and global levels. They are particularly aimed at people and companies who have ideas that are radically different from existing products or services on the market or under development (not incremental improvements), are highly risky, and require significant investments to get to market. As such they complement the focus on a broader innovation dimension (e.g. sector-specific, incremental) in other parts of the work programme (such as Innovation in SMEs, Access to Risk Finance, Leadership in Industrial Technologies).

The objective is to strengthen breakthrough innovations and boost the number of high-growth companies. It is anticipated that this part of the work programme will support around 1000 projects to that effect. The overall budget of €2.7 billion broadly reflects the

[1] These reforms follow responses to the "call for ideas" for a European Innovation Council.
[2] As announced in the Commission's communication on the Start-up and Scale-up Initiative.

multiannual funding profile of the constituent elements.

***The EIC Pilot brings together several innovation support schemes: the SME Instrument, the Fast Track to Innovation (FTI), FET Open, and Horizon Prizes. Each addresses the needs of a particular community in the innovation ecosystem.***

The **SME Instrument** addresses SMEs with a radically new idea underpinned by a business plan for rolling out marketable innovation solutions and with ambitions to scale up. **FTI** targets industry-driven consortia seeking a quick market uptake of new solutions, and brings together actors with complementary backgrounds, knowledge and skills. **FET Open** uses interdisciplinary collaboration to tap into Europe's excellent science base for exploring radically new technologies, which may become the game-changers of the future. **EIC Horizon Prizes** boost breakthrough innovation by fostering solutions to challenges which bring major benefits to society.

***These schemes have been adapted to support market-creating innovation more effectively.***

Market-creating innovations are radically new, breakthrough products, services, processes or business models that open up new markets with the potential for rapid growth at European and global levels. Market-creating innovations take shape at the intersection between different technologies, industry sectors and scientific disciplines, linked to domains such as agriculture, energy, health, ICT, space and transport. The removal of pre-defined topics in the SME Instrument (now fully bottom-up), and the absence of such topics in FTI and FET-Open, helps foster this process, as was illustrated with the Horizon 2020 interim evaluation: 96% of FTI consortia, for instance, report that they were developing radically new products, services, business processes or models.

Picking up on another recommendation from the Horizon 2020 interim evaluation, independent, expert evaluations of project proposals ensure that the quality of proposals and the teams behind them are rigorously assessed, with interviews now included in a second step of the SME Instrument evaluation process.

Steps are underway to help firms receiving grants access other forms and sources of finance appropriate to their scale-up and innovation development needs, such as crowdfunding, business angel investments, venture capital and loans via InnovFin[3] and other EU access to finance solutions under the Investment Plan for Europe[4] or COSME[5] or the European Structural and Investment Funds[6].

The results of projects will be closely monitored. Performance indicators are

[3] Cf. http://www.eib.org/products/blending/innovfin/index.htm

[4] Cf. https://ec.europa.eu/commission/priorities/jobs-growth-and-investment/investment-plan_en

[5] Cf. https://ec.europa.eu/growth/access-to-finance/cosme-financial-instruments_en

[6] Cf. https://ec.europa.eu/regional_policy/en/funding/financial-instruments.

the new products, services and processes for new markets being developed, private investment attracted during and after the project, and the turnover and employment of the companies that take part. These indicators will be gauged by reporting by the projects, by links to external databases on company performance, and by assessments by outside experts. For the latter, the EIC pilot will make use of the Innovation Radar, a tool to assess the market potential of innovations and the market-readiness of innovators. The Innovation Radar will also help communicate the results to potential investors.

Applicants may wish to look at other European support networks (such as the Enterprise Europe Network) as well as at facilities funded by Horizon 2020 for testing and demonstrating technologies or at Thematic Smart Specialisation Platforms. The use of space data from the EU's space programmes[7] is also encouraged.

[7] See http://copernicus.eu and https://gsa.europa.eu

Note

The EIC pilot's actions will also connect with activities undertaken by the Eurostars-2 Programme, the European Institute of Innovation & Technology (EIT), Startup Europe, InvestHorizon, the EU's space programmes (Copernicus and Galileo/EGNOS) and European Structural and Investment Funds (ESI Funds), including the Seal of Excellence initiative and the Thematic Smart Specialisation Platforms.

With the exception of the SME Instrument phase 1, grant beneficiaries must **share research data** by default, as stipulated in Article 29.3 of the Horizon 2020 Model Grant Agreement (including the creation of a Data Management Plan). **Participants may opt out of these arrangements, both before and after the signature of the grant agreement.** For more information, see General Annex L of the work programme.

# SME Instrument

H2020-EIC-SMEInst-2018-2020

*This call is expected to continue in 2020*

# Who should apply to the SME Instrument?

## *Are you an innovative, high-flying small or medium-sized business with European and global ambitions?*

Have you got an idea for an innovation that targets new markets and could boost the growth of your company?

Are you looking for substantial funding to develop and scale up your idea?

And could you make use of business development resources and coaching to take your company forward? Then the SME Instrument is for you.

The SME Instrument supports high-risk, high-potential small and medium-sized enterprises to develop and bring to market new products, services and business models that could drive economic growth.

The SME Instrument is for innovators with ground-breaking concepts that could shape new markets or disrupt existing ones in Europe and worldwide.

## *Competition for SME Instrument support is tough.*

The SME Instrument is very selective.

Only the most convincing and excellent proposals can be funded after a thorough evaluation by multinational panels of technology, business and finance experts.

Selected companies receive funding and are offered business coaching to scale up their innovation idea, and can also receive mentoring. They are helped in networking with other SME Instrument clients, with other companies of all sizes, and with potential co-investors and follow-up investors across Europe. As an SME Instrument client, you will gain visibility and boost your chances of success in European and international markets.

## *Europe needs more radical, market-creating innovations to improve productivity and international competitiveness and generate new jobs and higher standards of living.*

These innovations must meet user and customer needs and tackle societal, technological and business challenges in a sustainable way.

## *Have you got what it takes? Then apply now!*

# Principles and funding of the SME Instrument

### *Who can apply?*

For-profit SMEs, including young companies and start-ups, from any sector. You must be established in an EU Member State or a Horizon 2020 associated country.

### *What topics are covered?*

There are no set topics. Negative impacts on climate and the environment should be avoided.

### *How does it work?*

The SME Instrument provides full-cycle business innovation support. It has three phases, including a coaching and mentoring service.

### ➔ *Feasibility study: Phase 1*

**Phase 1** helps you get a grip on the R&D, technical feasibility and commercial potential of a ground-breaking, innovative idea and develop it into a credible business plan for scaling it up.

Activities can include, for example, risk assessment, market research, user involvement, analysis of regulatory constraints or standards regimes, intellectual property management, partner search, or feasibility assessment.

Your goal in Phase 1 is to formulate a solid, high-potential innovation project with a European or global growth-oriented strategy

Your proposal must be based on an initial business plan and outline the specifications of a more elaborate one, which will be the outcome of the project.

### *Phase 1 funding is a lump sum of €50 000[8]. Projects should last around 6 months.*

### ➔ *From concept to market: Phase 2*

**Phase 2** helps you develop your business concept further into a market-ready product, service or process aligned with your company's growth strategy. Activities could, for example, include trials, prototyping, validation, demonstration and testing in real-world conditions, and market replication. If the activity concerns a primarily technological innovation, a Technology Readiness Level (TRL) of 6 or above is envisaged. You can subcontract work essential for your innovation project.

### *You can apply to Phase 1 as a means of preparing for Phase 2, or you can apply directly to Phase 2.*

Your proposal must be based on a strategic business plan that was either developed in Phase 1 or by another means. Your proposal must specify the expected outcome of the project and criteria for success, as well as the expected impacts on your company in

[8] Commission Decision C(2013)8198 authorising the reimbursement of cost under the form of a lump sum for SME Instrument Phase 1 actions under Framework Programme Horizon 2020 states that the total eligible cost for a Phase 1 project is €71 249. Applying the co-financing rate of 70%, the amount of the grant is established at €50 000.

both qualitative and quantitative terms (e.g. on turnover, employment, market size, IP management, sales, return on investment, or profitability).

You must pay particular attention to IP protection and ownership, and present convincing evidence or measures to ensure the possibility of commercial exploitation (often known as 'freedom to operate'). You should also address regulatory and standardisation issues.

Grant funding is provided (funding rate 70%) of between €0.5 million and €2.5 million. You can request a higher or lower amount, duly justified, when applying. Your project should normally take 12 to 24 months to complete, but could be longer in exceptional and well-justified cases.

### ➔ *Commercialisation: Phase 3*

**Phase 3** helps you take advantage of additional EU support extended via a range of business support services offered on the EIC Community Platform, open to SMEs benefiting from the different EIC calls for proposals. This support can take the form of training, links to investors, partnering and networking with other EIC SME clients and larger firms and services to help you access international markets, e.g. via participation in overseas trade fairs. Phase 3 is not necessarily subsequent to Phase 1 or Phase 2; it provides specific support to EIC SME clients, mainly to help them access new markets or customers and link with investors. It does not provide direct funding. In the 2018-2020 period, Phase 3 is open to SMEs receiving grants under the FTI and FET-Open schemes, in addition to SMEs receiving grants from the SME Instrument budget.

All Phase 3 support services are accessible through a single, dedicated entry point, which serves as an information portal and networking space. *[See 'EIC Support Actions']*

### *Coaching*

If you are an SME benefiting from grant funding from the SME Instrument, FTI or FET-Open, we offer business coaching to help your business scale up and grow.

### *Coaching covers business development, organisational development, cooperation, and financing.*

For SME Instrument clients, up to 3 coaching-days are available in Phase 1, and up to 12 coaching-days in Phase 2. SMEs taking part in FTI or FET-Open are offered up to 12 coaching-days.

The free-of-charge coaching service is facilitated by the Enterprise Europe Network (EEN). Coaching is delivered by one or more qualified, experienced business coaches recruited from a database managed by the European Commission. All coaches meet stringent criteria regarding business experience and coaching skills. Throughout your project, the EEN will complement the coaching support. EEN offers a service package covering an assessment of your firm's innovation management capacities and the identification of a suitable coach or consulting package to address the gaps,

EEN also provides access to its innovation and internationalisation services.

## *Mentoring*

If you are an SME benefiting from grant funding from the SME Instrument, FTI or FET-Open, we will offer mentoring to individual founders, CEOs and leaders.

***Mentoring aims to develop leadership skills such as resilience, tenacity and strategic insight.***

The mentoring scheme will involve one-to-one meetings with an experienced entrepreneur, who will share expertise and provide impartial guidance and support.

Mentors will be CEOs of firms that have moved beyond the start-up stage. To begin with, mentors will be drawn from a pool of SME Instrument Phase 2 current and former clients willing to act as mentors on a *pro bono* basis.

Mentors and mentees will be matched up via the EIC Community Platform and during EIC Events and other suitable events.

We will introduce the mentoring scheme during 2018, and announce more details nearer the launch-date.

# Call conditions for the SME Instrument

**Type of funding: SME instrument Phase 1 / Phase 2**

## *Opening dates, deadlines, indicative budgets*

| **Opening date:**<br>7 November 2017 | **Deadline of cut-off**<br>***All deadlines are at 17.00.00 Brussels local time*** |
|---|---|
| *phase*<br>1 | **08 February 2018**<br>**03 May 2018**<br>**05 September 2018**<br>**07 November 2018**<br>**----------**<br>**13 February 2019**<br>**07 May 2019**<br>**05 September 2019**<br>**06 November 2019**<br>**----------**<br>**12 February 2020**<br>**06 May 2020**<br>**02 September 2020**<br>**04 November 2020** |
| *phase*<br>2 | **10 January 2018**<br>**14 March 2018**<br>**23 May 2018**<br>**10 October 2018**<br>**----------**<br>**09 January 2019**<br>**03 April 2019**<br>**05 June 2019**<br>**09 October 2019**<br>**----------**<br>**08 January 2020**<br>**18 March 2020**<br>**19 May 2020**<br>**07 October 2020** |
| The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening. The Director-General responsible may delay the deadline(s) by up to two months. The deadline(s) in 2019 and 2020 are indicative and subject to separate financing decisions for 2019 and 2020. | |

| Budget of the SME Instrument[9] | € millions | | |
|---|---|---|---|
| | **2018** | **2019** | **2020** |
| **Overall indicative budget** | 479.74 | 552.26 | 600.99 |
| **Phase 1** *divided equally between cut-off dates in each year* | 10% | 10% | 10% |
| **Phase 2** *divided equally between cut-off dates in each year* | 87% | 87% | 87% |
| **Phase 3** | 1% | 1% | 1% |
| **Coaching and mentoring** | 1% | 1% | 1% |
| **Evaluation** | 1% | 1% | 1% |

## Who can benefit from SME Instrument funding?

A proposal will be considered **eligible** if:

- Its content corresponds, wholly or in part, to the description of the SME Instrument call.
- The single beneficiary, or every beneficiary of a consortium, is a for-profit SME[10] located in an EU Member State or a Horizon 2020 associated country.
- There is no concurrent submission or implementation with another SME Instrument Phase 1 or Phase 2 project. If an applicant is involved in two proposals that were formally submitted but not yet reviewed under phase 1 and/or 2, only the proposal that was submitted first will be considered eligible.

## What are the requirements for an SME Instrument proposal to be admissible?

A proposal will be considered **admissible** if the following conditions are met:

- ☐ it was submitted in the electronic submission system before the final cut-off deadline;
- ☐ it is readable, accessible and printable;
- ☐ it is complete and includes the requested administrative data, the proposal description, and the obligatory supporting documents specified below;
- ☐ for a Phase 2 proposal, it includes a mandatory first commercialisation plan.

[9] The budget amounts for the 2018 budget are subject to the availability of the appropriations provided for in the draft budget for 2018 after the adoption of the budget 2018 by the budgetary authority or, if the budget is not adopted, as provided for in the system of provisional twelfths. The budget amounts for the 2019 and 2020 budget are indicative and will be subject to separate financing decisions to cover the amounts to be allocated for 2019 and for 2020.

[10] 'For-profit SMEs' means micro-, small- and medium-sized enterprises, as defined in Commission Recommendation 2003/361/EC, that are not 'non-profit legal entities' as defined in the Horizon 2020 Rules for Participation (Regulation No 1290/2013): i.e., a 'legal entity which by its legal form is non-profit-making or which has a legal or statutory obligation not to distribute profits to its shareholders or individual members'.

### *How long can my SME Instrument proposal be?*

In **Phase 1**, the maximum length of a proposal (proposal description, sections 1 to 3) is **10 pages**.

In **Phase 2**, the maximum length of a proposal (proposal description, sections 1 to 3) is **30 pages**.

The page limits, the sections subject to the limits and the formatting applicable are shown in the 'proposal templates' in the Participant Portal electronic submission system.

If your proposal exceeds the page limits, you will receive an automatic warning and be advised to resubmit a version that conforms to the limits.

After the cut-off deadline, excess pages will automatically be made invisible, and will not be taken into consideration by the experts evaluating your proposal.

## *Evaluation rules for the SME Instrument*

### Selection criteria

- ***Financial capacity:*** Applicants for mono-beneficiary grants (single SME applicants) are not subject to an automatic financial viability check. Coordinators of consortia of several SMEs will be invited, at proposal stage, to complete a self-assessment using an online tool.
- ***Operational capacity***: During the evaluation of the award criterion 'Quality and efficiency of implementation', experts will judge whether each individual participant has, or will have in due time, sufficient operational capacity to successfully carry out their tasks in the proposed work-plan. This assessment will be based on the competence and experience of the applicant, including their operational resources (human, technical, other) and, if applicable and on an exceptional basis, the measures proposed to secure these resources by the time of the implementation of the tasks.

The operational capacity of each applicant is determined on the basis of the following supporting documents, which are required when submitting a proposal:

- ☐ A CV or description of the profile of the persons who will be primarily responsible for carrying out the proposed activities.
- ☐ A brief description of relevant products, services (including widely used datasets or software) or other achievements (which may also include previous projects or activities connected to the subject of the proposal).
- ☐ A description of any significant infrastructure and/or any major items of technical equipment relevant to the proposed work.
- ☐ A description of any third parties that are not represented as project partners but who will nonetheless be contributing towards the work, for example by providing facilities or computing resources.

## Award criteria

Proposals are evaluated by experts on the basis of **three award criteria:** 'impact', 'excellence', and 'quality and efficiency of implementation'. The aspects examined under each criterion are described in the table below.

| ***Impact*** |
| --- |
| ***50% WEIGHTING*** |
| Convincing specification of **substantial demand** (including willingness to pay) for the innovation; demand generated by new ideas, with the potential to create new markets, is particularly sought after.<br>Total **market size** envisaged. |
| Convincing description of **targeted users or customers** of the innovation, how their needs have been addressed, why the users or customers identified will want to use or buy the product, service or business model, including compared to what is currently available if anything at all. |
| *Phase 1 (only)*: Good understanding of need for a realistic and relevant analysis of **market conditions**, total potential market size and growth-rate, competitors and competitive offerings, key stakeholders, clear identification of opportunities for market introduction: potential for market creation is particularly sought after.<br>*Phase 2 (only):* Realistic and relevant analysis of **market conditions and growth-rate,** competitors and competitive offerings, key stakeholders, clear identification of opportunities for market introduction, market creation or disruption (e.g. via new value-chains). |
| Realistic and relevant description of how the innovation has the **potential to scale-up the applicant company (or companies).** This should be underpinned by a convincing business plan with a clear timeline, and complemented, where possible, by a track-record that includes financial data. |
| **Alignment of proposal with overall strategy of applicant SME (or SMEs)** and commitment of the **team** behind them. Demonstration of need for commercial and management experience, including understanding of the financial and organisational requirements for **commercial exploitation** and **scaling up** (and - *Phase 2 only*) as well as key third parties needed. |
| *Phase1 (only)*: Outline of **initial commercialisation plan** and how this will be developed further (in-house development, licensing strategy, etc.).<br>*Phase 2 (only)*: Realistic and relevant **strategic plan for commercialisation**, including approximate time-to-market or deployment. Activities to be undertaken after the project.<br>***The 'commercial strategy' aspect is particularly examined in Step 2 of the evaluation of Phase 2 proposals.*** |
| **European/global dimension** of innovation with respect to both commercialisation and assessment of competitors and competitive offerings. |
| *Phase 1 (only)*: Realistic and relevant description of **knowledge protection** status and strategy**,** need for **'freedom to operate'** (i.e., possibility of commercial exploitation), and current IPR situation or a plan for obtaining this information. Where relevant, description of potential regulatory requirements. |

*Phase 2 (only):* Evidence of or realistic measures to ensure **'freedom to operate'** (i.e., possibility of commercial exploitation), convincing **knowledge-protection strategy**, including current IPR filing status, IPR ownership and licensing issues. **Regulatory and/or standards requirements** addressed.

Taken as whole, to what extent the above elements are **coherent and plausible.**

## *Excellence*

***25% WEIGHTING***

**High-risk/high-potential innovation idea** that has something that nobody else has. It should be **better and/or significantly different** to any alternative. Game-changing ideas or breakthrough innovations are particularly sought after.

Its **high degree of novelty** comes with a high chance of either success or failure.

Realistic description of **current stage of development** (*Phase 2 only:* TRL 6, or something analogous for non-technological innovations), and clear outline of **steps planned to take this innovation to market**.

**Highly innovative solution that goes beyond the state of the art** in comparison with existing or competing solutions, including on the basis of costs, ease of use and other relevant features as well as issues related to climate change or the environment, the gender dimension, any other benefits for society, or (*Phase 1 only*) includes plans for obtaining this information.

**Very good understanding of both risks and opportunities** related to successful market introduction of the innovation from both technical and commercial points of view or (*Phase 1 only*) includes convincing plans for obtaining this information.

*Phase 2 only*: Documentation on the **technological, practical and economic feasibility of the innovation**.

***The 'feasibility' aspect is particularly examined in Step 2 of the evaluation of Phase 2 proposals.***

*Phase 1 (only):* **Objectives for the feasibility study** and the **approach and activities** to be developed are consistent with the expected impact of the project.

*Phase 2 (only)*: **Objectives for the innovation proposal** as well as the **approach and activities** to be developed are **consistent with the expected impact** (i.e. commercialisation or deployment resulting in company growth). Appropriate definition provided of specifications for outcome of project and criteria for success.

Taken as whole, to what extent the above elements are **coherent and plausible.**

## *Quality and efficiency of implementation*

***25% WEIGHTING***

**Technical/business experience of the team,** including management capacity to lead a growing team

*Only Phase 1:* If relevant, the proposal includes a plan to acquire missing competences.

*Only Phase 2*: If relevant, the proposal includes a plan to acquire missing competences, namely through partnerships and/or subcontracting*****, and explains why and how they are selected (*subcontractors must be selected using 'best value-for-money' principles*).

| |
|---|
| ***The 'team' aspect is particularly examined in Step 2 of the evaluation of Phase 2 proposals.*** |
| **Availability of resources required** (personnel, facilities, networks, etc.) to develop project activities in the most suitable conditions.<br>Where relevant, complementarity of partners in a consortium.<br>*Only Phase 2:*<br>Where relevant, realistic description of how key stakeholders / partners / subcontractors could be involved***** (*subcontractors must be selected using 'best value-for-money' principles*).<br>Where relevant, the estimated budget and the procedure planned for selecting the subcontractors are appropriate*****. |
| **Realistic timeframe and comprehensive description of implementation** (work-packages, major deliverables and milestones, risk management) taking the company's or applicant's innovation ambitions and objectives into account. |
| *******Subcontracting is acceptable to the extent required for the implementation of the proposed activities. Subcontracting may be an essential part of the implementation of the project, but should not be a disproportionate part of the total estimated eligible costs. Subcontractors must be selected using 'best value-for-money' principles.* |
| Taken as whole, to what extent the above elements are **coherent and plausible.** |

## Evaluation procedure

### After each Phase 1 cut-off

- Proposals are evaluated in one step.
- A proposal is evaluated remotely by a number of evaluators with a mixture of technology, industry sector, business and finance expertise.
- Each evaluator scores each of the three award criteria from 0 to 5. Scores with a resolution of one decimal place may be given.
- The quality threshold of each criterion is 4 out of 5. The overall quality threshold, applying to the weighted sum of the three individual scores, is 13 out of 15.
- The consensus score at the level of the three evaluation criteria is the median of the scores given by each evaluator. The overall consensus score is the weighted sum of these separate scores. Proposals that have passed all thresholds are ranked in the order of their final score.
- If necessary, a panel review is organised remotely.

### After each Phase 2 cut-off

Applications are evaluated in two steps.

*Step 1: remote evaluation*

- A proposal is evaluated remotely by a number of evaluators with a mixture of technology, industry sector, business and finance expertise.

- Each evaluator scores each of the three award criteria from 0 to 5. Scores with a resolution of one decimal place may be given.
- The quality threshold of each criterion is 4 out of 5. The overall quality threshold, applying to the weighted sum of the three individual scores, is 13 out of 15.
- The consensus score of a proposal at the level of the three evaluation criteria is the median of the scores given by each evaluator. The overall consensus score is the weighted sum of these scores.
- Proposals that pass all quality thresholds will be considered for step 2.

*Step 2: face-to-face interview*

- Starting with the highest-scoring proposal and in descending, sequential order, proposals are passed to Step 2 until, as a batch, either the total amount of EU funding requested is as close as possible to twice the budget available, or all proposals eligible for funding have been accounted for. The actual threshold to pass to Step 2 will therefore be dynamic and depend on the volume of proposals received that pass all quality thresholds.

- Each applicant whose proposal has passed to Step 2 is invited to a face-to-face interview in Brussels.
- Only staff of applicants can represent them. Representation by third parties is forbidden.
- The interview is conducted by evaluators with a mixture of technology, industry sector, business and finance expertise.
- During the interview, the applicant is posed questions designed to clarify aspects of the proposal evaluated in Step 1, in particular those indicated above under 'award criteria'.
- In Step 2, proposals will receive, in addition to the score in Step 1, an 'A' mark or a 'B' mark from the final panel review.
- Only proposals that have passed all quality thresholds and receive an 'A' mark are proposed for funding.

**For both Phase 1 and Phase 2**

- During the electronic proposal submission process, you can provide up to three names of persons that should not act as an evaluator of your proposal, for commercial or other reasons.
- To set a priority order for proposals given the same consensus score in Phase 1, the following method is used:
  - Proposals are first prioritised according to scores given for the award criterion 'impact'.
  - Where those scores are equal, priority is then determined using scores for the award criterion 'excellence'.
  - If necessary, a further prioritisation is based on the degree of gender balance among the personnel named in the proposal as primarily responsible for carrying out the project.

## *Communication to applicants after evaluation procedure*

### Phase 1

For each proposal, applicants receive an **evaluation summary report** with the scores obtained and a qualitative assessment with respect to each of the aspects considered under each of the three award criteria.

### Phase 2

Each applicant invited to an interview in Step 2 receives an invitation at the end of Step 1.

For each proposal, applicants receive an **evaluation summary report** with the scores obtained and a qualitative assessment with respect to each of the aspects considered under each of the three award criteria (Step 1 of the evaluation). For proposals that have passed to Step 2, the report will contain an A or B mark and an additional qualitative assessment.

Phase 1 and Phase 2 applicants meeting all quality thresholds but not receiving funding will receive a Seal of Excellence.

## *Consortium agreement*

Members of consortium are required to conclude a consortium agreement, in principle prior to the signature of the grant agreement.

## *Indicative timetable for evaluation and grant agreement signature*

- Information about the outcome of the evaluation: Maximum 2 months after the corresponding cut-off date set out above for phase 1 and maximum 4 months after the corresponding cut-off date set out above for phase 2.
- Indicative date for the signing of grant agreements: Maximum 3 months from the final date for submission in phase 1 and maximum 6 months from the final date for submission in phase 2.

# Fast Track to Innovation (FTI)

H2020-EIC-FTI-2018-2020

*This call is expected to continue in 2020*

# Who should apply to FTI, the Fast Track to Innovation?

***Are you looking for partners that can help you with a fast go-to-market of an industry-driven, innovative concept that has strong potential to make your company grow and scale-up?***

Do you see co-creation or open innovation as ways to advance your innovation cycle and enter the market within three years?

Are you looking for substantial funding to test, demonstrate and validate your innovation with users before full commercial roll-out, potentially via a spin-off company or a joint venture?

***Then FTI is the scheme for you.***

Innovation is fostered when new ideas can emerge and easily translate into socio-economic value, shaping new markets and laying the foundations of a stronger, high-tech industrial base for Europe.

Working together, partners with complementary backgrounds, knowledge and skills, in both new and established value-chains, can turn ideas into world-beating products, processes and services that tackle societal challenges.

***FTI accelerates the market uptake of ground-breaking innovations by providing funding in an open, accessible scheme that nurtures ideas from consortia of innovators of all types and sizes from across Europe.***

Participation by industry — defined as private-for-profit organisations — is mandatory; industry is best-placed to ensure the due commercial exploitation of the innovation developed; in addition, company growth and development in order to strengthen Europe's industrial leadership are explicitly pursued with FTI support.

# Principles and funding of FTI

FTI supports actions undertaking innovation from the demonstration stage through to market uptake, including activities such as piloting, test-beds, systems validation in real-world working conditions, validation of business models, pre-normative research, and standard-setting.

The maximum EU contribution per action is €3 million (funding rate: 70% for for-profit entities; 100% for not-for-profit entities).

***FTI targets relatively mature, ground-breaking new technologies, concepts, processes and business models that need final development to be able to shape a new market and achieve wider deployment.***

If your proposal involves technological innovation, your consortium should declare that the technology or the technologies concerned are at least at Technology Readiness Level (TRL) 6. The intention will be to bring the TRL up to 8 for technological innovations and to an analogous level of maturity for non-technological innovations during the lifetime of the FTI action. TRLs are described in General Annex G of the work programme.

FTI actions are encouraged to be interdisciplinary, cutting across different sectors and technologies. Actions supporting innovative concepts that have the potential to disrupt or to create new markets are particularly welcome.

In your proposal, you should:

- ☐ Specify the intended outcome and describe key performance indicators and success criteria.
- ☐ Make reference to and incorporate a business plan clearly describing the market potential, business opportunities for participants, measures to enhance the probability of eventual commercial take-up, and a credible commercialisation strategy that identifies next steps and specifies other actors to be involved.
- ☐ Pay particular attention to IP protection and ownership and to the possibility of commercial exploitation (often known as 'freedom to operate').
- ☐ Specify the expected impact in terms of competitiveness and growth of the business partners in the consortium, measured in terms of turnover and job creation.
- ☐ Clearly describe the expected impact in both qualitative and quantitative terms, with factors such as time sensitivity and international competitiveness considered in the light of the technology field, innovation area and industry sectors concerned.

***The time to initial market take-up should be no more than 3 years from the start of your FTI action.***

In very well-justified cases linked to the specific characteristics of a particular innovation field or industry sector, the time to initial market take-up could be longer.

Possible impacts on sustainability or climate change, in particular, or on other cross-cutting objectives of Horizon 2020, must be highlighted.

Participation from industry in your consortium is mandatory. Universities and research and technology organisations can also participate. Actors with an important role in commercialisation are encouraged to take part, such as cluster organisations, end-users, industry associations, incubators, investors, and the public sector. Including start-ups with ground-breaking ideas that could create new markets is encouraged.

# Call conditions for FTI

**Type of funding: Innovation Action**

## *Opening date, deadlines, indicative budgets*

| **Opening date**:<br>07 November 2017 | **Deadline of cut-offs**<br>***All deadlines are at 17.00.00 Brussels local time*** |
|---|---|
| FTI | **21 February 2018**<br>**31 May 2018**<br>**23 October 2018**<br>**----------**<br>**21 February 2019**<br>**23 May 2019**<br>**22 October 2019**<br>**----------**<br>**19 February 2020**<br>**09 June 2020**<br>**27 October 2020** |
| **The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening. The Director-General responsible may delay the deadline(s) by up to two months. The deadline(s) in 2019 and 2020 are indicative and subject to separate financing decisions for 2019 and 2020.** | |

## *Budget of FTI*[11]

| | *€ millions* | | |
|---|---|---|---|
| | **2018** | **2019** | **2020** |
| **Overall indicative budget** | 100.00 | 100.00 | 100.00 |
| | *divided equally between cut-off dates in each year* | | |

## *Who can benefit from FTI funding?*

The **eligibility conditions** described in General Annex C of the work programme apply, with the following exceptions:

- Participation of three to no more than five different legal entities, independent of each other, in a consortium.

[11] The budget amounts for the 2018 budget are subject to the availability of the appropriations provided for in the draft budget for 2018 after the adoption of the budget 2018 by the budgetary authority or, if the budget is not adopted, as provided for in the system of provisional twelfths. The budget amounts for the 2019 and 2020 budget are indicative and will be subject to separate financing decisions to cover the amounts to be allocated for 2019 and for 2020.

- Allocation of at least 60% of the overall budget to consortium partner(s) from industry; *or* a minimum of 2 industry partners out of a consortium of 3 or 4; *or* a minimum of 3 industry partners out of a consortium of 5.
- Requested EU contribution not more than €3 million.
- All consortium members established in EU Member States or in countries associated to Horizon 2020.

### *What are the requirements for an FTI proposal to be admissible?*

The **admissibility conditions** described in General Annex B of the work programme apply.

### *How long should an FTI proposal be?*

The maximum length of a proposal is **30 pages** (proposal description, sections 1 to 3).

## *Evaluation rules for the FTI*

### Award criteria, scoring and threshold

The criteria, scoring and threshold described in General Annex H of the work programme apply, with the following exceptions:

- Evaluation scores are awarded for each criterion. Each criterion is scored from 0 to 5. Scores with a resolution of one decimal place may be awarded.
- The threshold for the criteria 'Impact' and 'Excellence' is 4. The threshold for the criterion 'Quality and efficiency of the implementation' is 3. The overall threshold, meaning the sum of the three individual scores, is 13.
- The consensus score of a proposal at the level of the three evaluation criteria is the mean (average) of the separate scores given by each evaluator. The overall consensus score is the weighted sum of these separate scores.
- The consensus report comprises the individual reports or key extracts from them, and will provide a summary of the main weaknesses of your proposal.
- The aspects to be considered for each evaluation criterion are set out below.

| ***Impact***<br>***50% WEIGHTING*** |
|---|

The objectives of the proposed action are in line with the expected impacts of the FTI, notably **fast development, commercial take-up and/or wide deployment of innovative solutions, time to initial market take-up, leveraging of private investment in research and/or innovation**. In addition, in line with the objectives of the European Innovation Council Pilot, proposals that can create a new market are particularly sought after.

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| The proposed innovation will lead to **enhanced innovation capacity of the consortium partners, and in particular of the industry partners**. |
| The proposed innovation/solution has a clear European or global dimension, in the sense |

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| that it is set to create **substantial demand from European and global markets and/or can create a new market or disrupt an existing one at European or global level**, which is well documented and supported with evidence on customer/user/market needs that can be translated into sales. The proposal provides a realistic and convincing analysis of the targeted market(s) and client/user base and how the innovation will meet their needs. |
| The way the project will strengthen the **growth/ scale-up and competitiveness of the industry partners** involved is well documented. |
| Framework conditions such as **regulation and standards, market size, prospects for growth, competitive edge and intended positioning of the solution towards possible others (competitor analysis)** are documented, and the outlook can be described as positive for market launch within 3 years' of time. |
| The **commercialisation plan is realistic and convincing** – containing a clear description of the new business opportunity and the way to capitalise on it. The plan includes effective measures to **exploit and disseminate the action's results** (including with respect to IPR management and standards). There is a broader strategy for knowledge management and protection with regards to the proposed innovation/solution, ensuring **"freedom to operate"**. Key stakeholders that can help with market introduction are identified, and a convincing strategy to get them on board exists. Communication, marketing and sales efforts are planned in a coordinated way, on the basis of a realistic timetable, and fit into a solid commercial strategy. |
| Based on the provided market analysis and the projected commercialisation strategy, the likely **return on investment** of the proposed innovation (for instance in the form of **projected rapid scale-up leading to job creation and/or company growth**) is sufficiently attractive to justify EU funding under FTI. |
| The proposed innovation is expected to generate a positive **impact at the European level other than economic** (societal, environmental, scientific, etc.). Wherever appropriate, the minimisation of impacts on climate and the environment is pursued. |
| The proposed **financing plan** for further roll-out of the innovation is realistic and convincing and offers a sufficient guarantee and coverage to allow for further scale-up of the action and companies involved. |
| ***Excellence*** |
| ***25% WEIGHTING*** |
| The **objectives** of the proposal are defined **in a clear and pertinent way**, support Horizon 2020 objectives, and are directed towards fast, wide market uptake. |
| The proposed activities to be executed will contribute to a **credible, realistic and optimal development of the innovation** to the level of market uptake. |
| The underlying, jointly developed business innovation concept of the proposed innovation is sound, and has already been tested in an operational/production environment. It has a potential to **bring important progress to or revolutionise an existing industrial sector, business practice and/or societal challenge.** |
| The proposed innovation is ambitious and is set to **add substantial value to Europe (e.g. considerably contribute to Europe's industrial leadership or the solution of Horizon 2020** |

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| **societal challenges)**, and this is well identified and elaborated in the proposal. Game-changing ideas or breakthrough innovations are particularly sought after.<br>**A high degree of novelty comes with a high chance of either success or failure.** |
| The proposed innovation has successfully been tested in an operational or production environment (stage of development at TRL 6 or similar for non-technological innovations) and **can move to market take-up (B2B or B2C) within maximum 36 months.** |
| The proposal demonstrates that **the intrinsic quality of the innovation will be significantly higher than current state-of-the-art solutions**, in terms of value for money, problems solved, new applications, sustainability, etc. |
| ***Quality and efficiency of implementation***<br>***25% WEIGHTING*** |
| The **work plan is coherent and effective**. It takes into account the project's ambition and objectives, includes a realistic and relevant time-frame, and refers to a sound and comprehensive implementation plan, in particular in relation to major deliverables. Tasks and resources are allocated in an appropriate and cost-effective way. |
| The proposal demonstrates that the **partners** of the consortium are **complementary**, and **together have what it takes** (personnel, facilities, skills, networks, access to markets…) **to deliver on groundbreaking innovation and fast, wide market uptake**. Implementation risks and threats are well identified; the proposal contains a **risk mitigation plan**, with detailed actions. |
| Both the **organisational framework/governance structure** underpinning the action and the **decision-making processes** are established in a **clear and efficient** way. |

## *Evaluation procedure*

The procedure for setting a priority order for proposals with the same score is given in General Annex H of the work programme. The full evaluation procedure is described in the relevant guide published on the Participant Portal.

## *Consortium agreement*

Members of consortium are required to conclude a consortium agreement, in principle prior to the signature of the grant agreement.

## *Indicative timetable for evaluation and grant agreement signature*

- Information about the outcome of the evaluation: maximum 3 months after the corresponding cut-off date set out above.
- Indicative date for the signing of grant agreements: maximum 6 months from the final date for submission.

# FET-Open

## *Novel ideas for radically new technologies*

H2020-FETOPEN-2018-2020

The call 'EIC – FET–Open' is reflected in this WP section for the reasons outlined in the Introduction. However, only the text of this call as included in the work programme section on Future and Emerging Technologies (FET) has legal value.

# Principles and characteristics of FET-Open, and who should apply

*FET-Open aims to establish European leadership in the early exploration of future technologies. It looks for opportunities of long-term benefit for citizens, the economy and society. It aims to mobilise Europe's most creative and forward thinking researchers from all disciplines to work together and explore what may become the leading technology paradigms of the future.*

FET Open supports early stage science and technology research exploring new foundations for radically new future technologies by challenging current paradigms and venturing into unknown areas. A bottom-up selection process widely open to any research idea builds up a diverse portfolio of new research directions. Early detection of promising new areas, developments and trends, along with attracting new and high-potential research and innovation players, are key factors.

**FET Open** combines high scientific ambition with concrete technological implications. It aims to attract interdisciplinary consortia that do not shy away from exploring connections between remote disciplines in order to open-up new and potentially game changing technological directions that FET as a whole aims to develop into the leading technology paradigms of the future, including through FET-Proactive projects and FET-Flagship initiatives. In spite of the high initial risk, the long-term impact can be enormous: these new technologies can become the core for new high-growth companies, for new industries or for radically new ways of tackling societal challenges.

**The FET-Open call** is a part of the European Innovation Council (EIC) pilot. It provides the EIC with a bold exploratory engine that shatters the frontiers of current thinking. All FET-Open projects, even if far from today's markets, are full of great ideas to inspire the entrepreneurial minds that the EIC attracts. While keeping its own identity of excellence in science and technology research, the exposure of FET-Open within the EIC allows new and sometimes unexpected opportunities to be detected and picked up early on. For those cases, the FET Innovation Launchpad is designed to assist in the first steps to accelerate the real-world impact of a result from FET research – a win-win for both research and for innovation. Other parts of the EIC provide further tools for achieving high-impact on society and/or the economy. Furthermore, by being part of the EIC pilot, FET-Open participants have access to the assistance, networking and financing possibilities offered by the EIC thus further increasing the leverage and increased impact from the initial high-risk investment in FET projects.

Proposals are invited against the following topics:

# FET-Open Challenging Current Thinking

## *Specific Challenge*

To lay the foundations for **radically new future technologies** of any kind from visionary interdisciplinary collaborations that dissolve the traditional boundaries between sciences and disciplines, including the social sciences and humanities. This topic also encourages the driving role of new actors in research and innovation, including excellent young researchers, ambitious high-tech SMEs and first-time participants to FET under Horizon 2020 from across Europe.

## *Scope*

Proposals are sought for cutting-edge **high-risk / high-impact interdisciplinary research with all of the following essential characteristics** ("FET gatekeepers"):

- **Radical vision**: the project must address a clear and radical vision, enabled by a new technology concept that challenges current paradigms. In particular, research to advance on the roadmap of a well-established technological paradigm, even if high-risk, will not be funded.
- **Breakthrough technological target**: the project must target a novel and ambitious science-to-technology breakthrough as a first proof of concept for its vision. In particular, blue-sky exploratory research without a clear technological objective will not be funded.
- **Ambitious interdisciplinary research** for achieving the technological breakthrough and that opens up new areas of investigation. In particular, projects with only low-risk incremental research, even if interdisciplinary, will not be funded.

The inherently high risks of the research proposed shall be mitigated by a flexible methodology to deal with the considerable science-and-technology uncertainties and for choosing alternative directions and options.

The Commission considers that proposals requesting a contribution from the EU of up to €3 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

## *Expected impact*

- Scientific and technological contributions to the foundation of a new future technology.
- Potential for future social or economic impact or market creation.
- Building leading research and innovation capacity across Europe by involvement of key actors that can make a difference in the future, for example excellent young researchers, ambitious high-tech SMEs or first-time

participants to FET under Horizon 2020[12].

### *Type of action*

Research and Innovation action.

***The conditions related to this topic are provided at the end of this call and in the General Annexes.***

[12] First time participation here refers to the individuals involved, not their institution or organisation.

# FET-Open Coordination and Support Actions

## *Specific Challenge*

To promote excellent collaborative research and innovation on future and emerging technologies to secure and renew the basis for future European competitiveness and growth, and that will make a difference for society in the decades to come.

## *Scope*

Proposals for Coordination and Support Actions (CSA) should be driven by relevant actors in the research field and address only one of the following sub-topics:

### a) FET Communication and Outreach

Support communication activities on the FET programme and its achievements and outreach actions targeting a wide range of audiences including the general public, and going well beyond the world of academia and research. This shall stimulate the emergence of a FET community and its connection to relevant multipliers and other stakeholder networks. The activities shall use a diversity of channels and interventions (for example news items, social media, interviews, workshops, exhibitions, competitions, code camps and participatory actions for wider engagement).

### b) FET Innovation

Stimulate the impact on innovation from FET-funded research and improving the innovation readiness levels of FET results, for example by providing a kind of "market place" for FET technologies, by connecting the world of research with that of, potential users, technology leaders, technology transfer organisations, entrepreneurs, investors or alternative financing channels.

### c) FET Observatory

Ongoing and systematic identification of new and emerging technologies from FET portfolio analysis, trends analysis (using for instance bibliometric tools, media watch, consultations and workshops) and broader horizon scanning (beyond research), including also consideration of ethical implications, gender differences and long-term impacts on society and humankind.

Specificity to the nature of FET is a must (e.g., upstream positioning, interdisciplinarity, high-risk, novelty, long-term impact,…).

The Commission considers that proposals requesting a contribution from the EU of up to € 0.5 million (and up to 0.7 million for a.) would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

## *Expected impact*

- Strengthening globally recognised European leadership in the early exploration of visionary, new and emerging technologies and with a

strong engagement of scientists, citizens, innovators and policy makers.

- Improved long-term innovation potential in Europe both from the abundance of novel ideas and the range of actors ready to take them forward.
- Improved readiness across Europe to engage in inter-disciplinary research collaboration and to take up new, open and responsible research and innovation practices, with due attention to aspects such as education, gender differences and long-term societal, ethical and legal implications.

### *Type of action*

Coordination and support action

***The conditions related to this topic are provided at the end of this call and in the General Annexes.***

# FET Innovation Launchpad

## *Specific Challenge*

This topic aims at turning results from FET-funded projects into genuine societal or economic innovations.

## *Scope*

Short individual or collaborative actions focused on the non-scientific aspects and the early stages of turning a result of an ongoing or recently finished project funded through FET under FP7 or Horizon 2020[13] into a genuine innovation with socio-economic impacts. The precise link with the relevant FET project and the specific result for which a FET Innovation Launchpad proposal is intended, are to be explicitly described in the proposal. This topic does not fund research or activities that are/were already foreseen in the original FET project. Activities proposed should reflect the level of maturity of the result to be taken up. They can include the definition of a commercialisation process, market and competitiveness analysis, technology assessment, verification of innovation potential, consolidation of intellectual property rights, business case development. Proposals can include activities with, for instance, partners for technology transfer, licence-takers, investors and other sources of financing, societal organisations or potential end-users. Limited low-risk technology development (for instance for demonstration, testing or minor adjustment to specific requirements) can be supported as long as it has a clear and necessary role in the broader proposed innovation strategy and plan.

The Commission considers that proposals for actions no longer than 18 months and requesting a contribution from the EU of up to € 0.1 million would allow this specific challenge to be addressed appropriately.

## *Expected impact*

- Increased value creation from FET projects by picking up innovation opportunities.
- Improved societal and market acceptance of concrete high-potential innovations from FET projects.
- Stimulating, supporting and rewarding an open and proactive mind-set towards exploitation beyond the research world.
- Contributing to the competitiveness of European industry/economy by seeding future growth and the creation of jobs from FET research.

## *Type of action*

Coordination and support action

[13] Research and Innovation Actions funded under any call in the FET work programmes under Horizon 2020 for 2014-2015, for 2016-2017, and for 2018-2019-2020; projects funded under the FET part of any of the LEIT-ICT work programmes under FP7. See the Call Conditions for specific eligibility conditions.

***The conditions related to this topic are provided at the end of this call and in the General Annexes.***

# Conditions for the call

# EIC - FET-Open – Novel ideas for radically new technologies

## *Opening dates, deadlines, indicative budgets*[14]

| **Opening date**: 7 November 2017 | **Deadline of cut-offs** *All deadlines are at 17.00.00Brussels local time* |
|---|---|
| FETOPEN-01-2018-2019-2020 (RIA) | **16 May 2018**<br>**24 January 2019**<br>**18 September 2019**<br>**13 May 2020** |

| ***Budget of FETOPEN-01-2018-2019-2020 (RIA)*** | *€ millions* | | |
|---|---|---|---|
| | **2018** | **2019** | **2020** |
| **Overall indicative budget** | 181.20 | 162.80 | 361.00 |

| **Opening date**: 7 November 2017 | **Deadline of cut-offs** *All deadlines are at 17.00.00 Brussels local time* |
|---|---|
| FETOPEN-02-2018 (CSA) | **11 April 2018** |
| FETOPEN-03-2018-2019-2020 (CSA) | **16 October 2018**<br>**08 October 2019**<br>**14 October 2020** |

[14] The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.
The Director-General responsible may delay the deadline(s) by up to two months.
The deadline(s) in 2019 and 2020 are indicative and subject to separate financing decisions for 2019 and 2020.
The budget amounts for the 2018 budget are subject to the availability of the appropriations provided for in the draft budget for 2018 after the adoption of the budget 2018 by the budgetary authority or, if the budget is not adopted, as provided for in the system of provisional twelfths.
The budget amounts for the 2019 and 2020 budget are indicative and will be subject to separate financing decisions to cover the amounts to be allocated for 2019 and for 2020.

| Budget of FETOPEN (CSA) | € millions | | |
|---|---|---|---|
| | **2018** | **2019** | **2020** |
| **Overall indicative budget FETOPEN-02-2018 (CSA)** | 2.00 | | |
| **Overall indicative budget FETOPEN-03-2018-2019-2020 (CSA)** | 2.50 | 2.70 | 3.00 |

The call opens at 17.00.00 Brussels local time on the opening date.

The total indicative budget for the FET-Open topic FETOPEN-01-2018-2019-2020 is EUR 647,50 million. The indicative funding budgets available per cut-off date for this topic are as follows:

1. Cut-off date 16/05/2018: €123,70 million
2. Cut-off date 24/01/2019: €160,40 million
3. Cut-off date 18/09/2019: €160,40 million
4. Cut-off date 13/05/2020: €203 million

€57.50 million from the 2018 budget will be used to fund in part the last cut-off of the Horizon 2020 FETOPEN-2016-2017 call under the FET work-programme 2016-2017.

## *Indicative timetable for evaluation and grant agreement signature*

For single stage procedure:

- Information on the outcome of the evaluation: Maximum 5 months from the final date for submission; and
- Indicative date for the signing of grant agreements: Maximum 8 months from the final date for submission.

### *Eligibility and admissibility conditions*

The conditions are described in General Annexes B and C of the work programme. The following exceptions apply:

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|---|---|
| **FETOPEN-03-2018-2019-2020** | Proposals must build on results from an ongoing or recently finished project, funded as a result of call in any FET topic under FP7 or Horizon 2020 and clearly identified in the proposal. For a project to be considered "recently finished" in the context of this call topic its actual end date must be at most one year before the deadline for proposal submission to this topic. For a |

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|---|---|
| | project to be considered "ongoing" in the context of this call topic the deadline for proposal submission to this topic must be within the period limited by the contractual start date and end date of the project.<br><br>Proposals must include a declaration by the coordinator of the necessary rights and ownership of results to be exploited, as described in the proposal. Applicants that are not the owner of the result to be taken up in the proposal must provide a letter from the relevant beneficiary or beneficiaries of the previous FET project that own(s) the result that confirms the existence of the necessary agreements with the coordinator of the current proposal, including on IPR. |

## *Evaluation criteria, scoring and threshold*

The criteria, scoring and threshold are described in General Annex H of the work programme. The following exceptions apply:

| | |
|---|---|
| **FETOPEN-01-2018-2019-2020** | **Excellence**<br><br>Adherence to the "FET gatekeepers" as described in the call text:<br><br>• Clarity of the radical vision of a science-enabled technology and its differentiation from current paradigms.<br><br>• Novelty and ambition of the proposed science-to-technology breakthrough that addresses this vision.<br><br>• Range of and added value from interdisciplinarity for opening up new areas of research; non-incrementality of the research proposed.<br><br>• High-risk, plausibility and flexibility of the research approach.<br><br>**Threshold: 4/5, Weight: 60%**<br><br>**Impact**<br><br>• The extent to which the outputs of the project would contribute to the expected impacts listed in the work programme under this topic. |

| | |
|---|---|
| | • Effectiveness of measures and plans to disseminate and use the results (including management of IPR) and to communicate about the project to different target audiences.<br><br>**Threshold: 3.5/5, Weight: 20%**<br><br>**Quality and efficiency of the implementation**<br><br>The following aspects are taken into account:<br>• Coherence and effectiveness of the research methodology and work plan to achieve project objectives and impacts, including adequate allocation of resources to tasks and partners.<br>• Role and complementarity of the participants and extent to which the consortium as a whole brings together the necessary expertise.<br><br>**Threshold: 3/5, Weight: 20%** |
| **FETOPEN-03-2018-2019-2020** | **Excellence**<br><br>The following aspects are taken into account:<br>• Clarity and quality of the innovation idea and its link with the previous or ongoing FET project indicated in the proposal.<br>• Concreteness of objectives and their pertinence for moving the output of FET research through the initial steps of a process leading to a commercial or social innovation.<br>• Suitability and necessity of the proposed activities to reach the stated objectives, including their complementarity to actions already foreseen or expected from the previous or ongoing FET project.<br><br>**Threshold: 3/5, Weight: 40%**<br><br>**Impact**<br><br>Contributions to the impacts listed under this topic in the work programme:<br>• Added innovation potential with respect to the FET project from which this innovation originates. |

| | |
|---|---|
| | • Extent of economic and/or societal benefits resulting from this innovation as identified in the proposal.<br>• Suitability of measures for taking the innovation beyond the research world, including through engagement with prospective exploitation partners, other stakeholders, users or society.<br>**Threshold: 3.5/5, Weight: 40%**<br>**Quality and efficiency of the implementation**<br>The following aspects are taken into account:<br>• Quality of workplan and management.<br>• Relevance of expertise in the consortium.<br>• Appropriate allocation of resources (person-months).<br>**Threshold: 3/5, Weight: 20%** |

## *Evaluation Procedure*

The procedure for setting a priority order for proposals with the same score is given in General Annex H of the work programme. The following exceptions apply:

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|---|---|
| **FETOPEN-01-2018-2019-2020** | The following specific page limits apply. Sections 1 to 3 of the Part B of the proposal should consist of a maximum of 15 A4 pages. The limits will be clearly shown in the "proposal templates" in the Participant Portal electronic submission system. Sections that are not subject to limits will be indicated.<br>A proposal that, according to the evaluator's assessments, does not convincingly satisfy all FET gatekeepers as described under this topic will be declared out of scope. The communication to the applications will include the evaluators' assessments, or relevant extracts from them.<br>At consensus stage, the consensus score for each evaluation criteria will be the median of the corresponding scores attributed by the individual evaluators. The consensus report will comprise a collation of the comments from individual reports, or extracts from them. The final review panel will decide on the final score based on its consensus discussions. The panel will also decide on any additional comments, possibly including advice not to resubmit the proposal. |

| | |
|---|---|
| **FETOPEN-02-2018** | Grants will be awarded to proposals according to the ranking list. However, in order to ensure a balanced portfolio of supported actions, at least the highest-ranked proposal per sub-topic will be funded provided that it attains all thresholds. |
| **FETOPEN-03-2018-2019-2020** | The following specific page limits apply. Sections 1 to 3 of the Part B of the proposal should consist of a maximum of 7 A4 pages. The limits will be clearly shown in the "proposal templates" in the Participant Portal electronic submission system. Sections that are not subject to limits will be indicated.<br><br>At consensus stage, the consensus score for each evaluation criteria will be the median of the corresponding scores attributed by the individual evaluators. The consensus report will comprise a collation of the comments from individual reports, or extracts from them. The final review panel will decide on the final score based on its consensus discussions. The panel will also decide on any additional comments, possibly including advice not to resubmit the proposal.<br><br>For deciding the priority order for proposals with the same score, the procedure for Innovation actions will apply. |

The full evaluation procedure is described in the relevant guide published on the Participant Portal.

### *Consortium agreement*

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|---|---|
| FETOPEN-01-2018-2019-2020 | Members of consortium are required to conclude a consortium agreement, in principle prior to the signature of the grant agreement. |

# CALLS and OTHER ACTIONS for 2020

## Call - FET-Open – Novel ideas for radically new technologies[15]

***H2020-FETOPEN-2018-2020-continued***

Topics:

FET-Open Challenging current thinking [continued]

FET Innovation Launchpad [continued]

[15] This is the continuation of a call for which information is provided in the first sections of this work programme part.

# EIC Horizon Prizes

# EIC Horizon Prizes

## Who should apply

***EIC Horizon Prizes aim to boost breakthrough innovation across sectors by fostering cutting-edge solutions which bring major benefits to citizens and society.***

Are you an innovator, an academic, a start-up, an entrepreneur or a business willing to think out of the box, across sectors and disciplines?

Do you want to use your creativity and expertise to bring breakthrough solutions to the market faster or to develop cutting-edge solutions to address the problem?

Are you ready to engage with other innovators to develop close-to-market solutions which will answer major societal problems?

***Have a go!***

## Principles of EIC Horizon Prizes

***EIC Horizon Prizes set an ambitious goal, without saying how that goal should be achieved or who should achieve it. The prize is awarded to whoever can most effectively meet a defined challenge.***

EIC Horizon Prizes are particularly ambitious with regards to the societal problems to be addressed.

EIC Horizon Prizes call for breakthrough solutions from innovators, aiming to demonstrate the feasibility or potential of particular technologies and promote uptake.

The objectives of the prize contests are to solve a problem, without prescribing a specific solution to be implemented. The contests are built on simple, clear, comprehensive and objective targets that must be reached to win the contest. They address challenges to be solved by 2021 at the latest (see specific conditions for each contest).

Specific characteristics for each Prize are defined in the individual rules of contest, which lay down conditions for submission and participation, detailed award criteria (scoring and the weighting methodology), and the evaluation process.

Prizes are awarded to whoever can most effectively meet the defined challenge as set out in the rules of contest. The amount of the prize is not linked to the costs of the activities incurred by the winner; the principles of eligible costs, co-financing, non-retroactive award and no-profit do not apply.

For more information, please see the Horizon 2020 Model of Rules of Contest for Prizes.

# 1. EIC Horizon Prize for 'Innovative Batteries for eVehicles'

## *Challenge*

The challenge is to develop a safe and sustainable battery for electric-vehicles through the development of new materials and chemistries making use of abundant, sustainable low cost materials, which are easily available in Europe. Solutions are required to provide the same or better performance than vehicles with internal combustion engines and to be capable of recharging the electric vehicle within a time equivalent to fill a conventional gasoline/diesel fuel tank.

This prize will contribute significantly to the decarbonisation of Europe for the benefit of the EU's economy and its citizens.

This prize will:

- Foster knowledge, innovation and competitiveness in e-vehicle battery/ energy storage technologies.
- Enhance the European manufacturing base for e-vehicle batteries.
- Strengthen the European Industrial value chain (e.g. through exploitation or synergies with existing European industrial infrastructures).
- Strengthen European value added in the supply and knowledge of advanced materials and chemistries for batteries.
- Encourage electro-mobility, opening up new markets and incentivising technological innovations.
- Enhance employment prospects along the entire electro-mobility value chain.
- Contribute to a significant drop in CO2 and NOx emissions in line with global environmental policies.

***The specific rules of the contest will be published in the fourth quarter of 2017 by the European Commission, which will directly launch and manage the contest and award the prize based on the judgement of independent experts.***

## *Expected results*

A prototype battery with fast repowering and long-distance range, high recyclability, and long life cycle.

## *Eligibility criteria*

The contest is open to any legal entity (including natural persons) or group of legal entities established in an EU Member State or in a country associated to Horizon 2020.[16]

[16] For reasons of fostering Europe's competitiveness in the innovative battery sector, participation to this prize contest will be limited to EU Member States and Countries Associated to Horizon 2020.

## *Essential award criteria*

The prize will be awarded, after closure of the contest, to the contestant(s) who in the opinion of the jury demonstrates a solution that best meets the following cumulative criteria for a prototype battery (demonstrated and tested in adequate environment):

- Provides high standards for safety, sustainability and recyclability;
- Provides the same experience and user convenience, in terms of range and time required to recharge, as a conventional gasoline/diesel car;
- Has whole-life costs (in terms of battery materials and its functionality) equivalent or better than gasoline/diesel car;
- Demonstrates reliable power delivery without significant loss of performance for an economically acceptable life time (power delivery to be demonstrated for a life time higher than batteries currently available);
- Ensures that other performance criteria (car acceleration, safety, etc.) are maintained in comparison to a combustion engine powered vehicle,
- Demonstrates a significant advance in new material technologies while avoiding dependence on import materials (e.g. expensive, rare, and unsustainable materials);

## *Type of action*

Inducement prize

| *Indicative timetable* | |
|---|---|
| **Opening of contest** | **Fourth quarter of 2017** |
| **Deadline to submit applications** | **Fourth quarter of 2020** |
| **Award of prize** | **Fourth quarter of 2021** |

## *Indicative budget*

€10 million from the 2020 budget[17]

[17] of which EUR 5.00 million from the 'Access to Risk Finance' WP part, EUR 5.00 million from the 'Nanotechnologies, Advanced Materials, Biotechnology and Advanced Manufacturing and Processing' WP part.

# 2. EIC Horizon Prize for 'Fuel from the Sun: Artificial Photosynthesis'

## *Challenge*

The challenge is to build a fully functional, bench-scale prototype of an artificial photosynthesis based system which is able to produce a useable synthetic fuel.

Artificial photosynthesis is widely considered to be among the most promising new technologies to deliver sustainable alternatives to current fuel supplies. Due to its ability to use a combination of sunlight, water and carbon from the air to produce energy, artificial photosynthesis is regarded as a potential breakthrough energy technology. It can be used to produce hydrogen or carbon-based fuels – collectively referred to as "solar fuels" – which offer an efficient and transportable means of storage of solar energy. Solar energy, in turn, can be used as an alternative to fossil fuels and as a feedstock for a wide range of industrial processes.

The device to be built needs to integrate the whole process from light capture to fuel production and be capable of powering a small engine. The production of fuel in the form of hydrogen and the use of conventional photovoltaic cells for the light harvesting process or to collect light and electrolysers are not permitted.

For the purpose of this prize, artificial photosynthesis (AP) is understood to be a process that aims at mimicking the physical chemistry of natural photosynthesis by absorbing solar energy in the form of photons. The solution is required to use this energy to generate fuel molecules through a synthetic system to be delivered as a single integrated device that utilises either biomimetic, nanotechnology, synthetic biology or a combination of these systems.

Meeting the challenge will stimulate innovation and focus research and development towards energy applications in a new energy technology through increased public and commercial interest. Moreover, it will accelerate the development of new innovative energy conversion systems using solar light and natural elements to produce renewable fuels to be used in industry, housing and transport.

The challenge will also create a stimulus for industrial participation and creation of start-ups, pushing the artificial photosynthesis technology for fuel production to the next level of development.

Considering the innovative approach and the novelty of using artificial photosynthesis for fuel production, the prize will generate interest in the subject and foster interdisciplinary collaboration among potential applicants, such as students, young researchers and engineers. The competition is expected to highlight the diversity of potential solutions.

***The specific rules of the contest will be published in the fourth quarter of 2017 by the European Commission, which will directly launch and manage the contest and award the prize based on the judgement of independent experts.***

### *Expected results*

A number of innovative devices and systems demonstrating the use of sunlight to produce a fuel ready to be used.

### *Eligibility criteria*

The contest is open to all legal entities (i.e. natural or legal persons, including international organisations) or groups of legal entities.

### *Essential award criteria*

The prize will be awarded to the contestant(s) who will, in the opinion of the jury, demonstrate a solution that best meets the following cumulative criteria:

- Degree of system integration from light capture to fuel production;
- Device/system performance;
- Production of fuel that will be used in an engine.
- Widest market potential.
- Commercial potential of the device

### *Type of action*

Inducement prize

| *Indicative timetable* | |
|---|---|
| **Opening of contest** | **Fourth quarter of 2017** |
| **Deadline to submit applications** | **First quarter of 2021** |
| **Award of prize** | **Fourth quarter of 2021** |

### *Indicative budget*

€5 million from the 2020 budget[18]

[18] of which EUR 5.00 million from the 'Access to Risk Finance' WP part.

# 3. EIC Horizon Prize for 'Early Warning for Epidemics'

## *Challenge*

The challenge is to develop a scalable, reliable, and cost-effective early-warning system prototype to forecast and monitor vector-borne diseases in order to contribute to the prevention of outbreaks, mitigating their impact on local, regional and global scales, and providing support to existing elimination efforts.

According to the World Health Organisation (WHO), vector-borne diseases such as malaria, Zika, dengue or yellow fever cause more than 1 million deaths globally each year. Vectors are living organisms that can transmit infectious diseases between humans or from animals to humans. Vector-borne diseases are a global threat to public health and can have far-reaching economic and social impacts.

Climate and environmental phenomena contribute to creating the necessary conditions for these kinds of diseases to thrive. Variables such as rainfall, temperature and humidity affect the number and survival rate of mosquitoes and other vectors of diseases.

The 2030 Agenda for Sustainable Development, in the context of its Sustainable Development Goal 3 "Ensure healthy lives and promote well-being for all at all ages", aims to end the epidemics of malaria and neglected tropical diseases (amongst others) by 2030. It calls for strengthening the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.

The Earth Observation domain is changing with increasing amounts of data being generated from space-borne, air-borne, in-situ and citizen observatories. Effective management of big data in this domain shall be an essential element in improving the 'early warning' capabilities of any system which aims to mitigate epidemics related to vector-borne diseases. The full potential of combining all the available data is not yet harnessed and innovative solutions are needed to enable the system's wider use and exploitation in this context. Such solutions would not only help to improve the 'preparedness' and response related to vector-borne disease outbreaks, but also foster the creation of a digital solution marketplace in the domain of environmental and climate health risks.

***The specific rules of the contest will be published in the fourth quarter of 2017 by the European Commission, which will directly launch and manage the contest and award the prize based on the judgement of independent experts.***

## *Expected results*

- A reliable, cost-effective and scalable early warning system prototype to forecast and monitor vector-borne

diseases, which should encompass innovative technological solutions integrating big data derived from different sources (e.g. space-borne, airborne, in-situ and citizen observations) in Earth observation domain, including climate data, vector-related modelling, meteorology, and geo-located information related to vector-borne disease outbreaks and behaviour. These should be interoperable with public health data and other socio-economic data.

- Demonstration of the prototype at local level, taking into account any relevant societal factors in the chosen geographical area. It should be compatible for use with data coming from existing multi-disciplinary networks comprising health, humanitarian aid and emergency management actors, in order to leverage data and information from these networks, as well as to showcase the operational potential and added value of the solution.

## *Eligibility criteria*

The contest is open to all legal entities (i.e. natural or legal persons, including international organisations) or groups of legal entities.

## *Essential award criteria*

The prize will be awarded, after closure of the contest, to the contestant(s) who, in the opinion of the jury, demonstrates a solution that best meets the following cumulative criteria:

- Operational capability and data integration.
- Demonstrated Implementation within an affected community.
- Scalability and sustainability of the Early-Warning Concept.
- Focus on European technology demonstration.

## *Type of action*

Inducement prize

| *Indicative timetable* | |
|---|---|
| **Opening of contest** | **Fourth quarter of 2017** |
| **Deadline to submit applications** | **Third quarter of 2020** |
| **Award of prize** | **First quarter of 2021** |

## *Indicative budget*

€5 million from the 2020 budget[19]

[19] of which EUR 5.00 million from the 'Access to Risk Finance' WP part.

# 4. EIC Horizon Prize for 'Blockchains for Social Good'

## *Challenge*

The challenge is to develop scalable, efficient and high-impact decentralized solutions to social innovation challenges leveraging Distributed Ledger Technology (DLTs), such as the one used in blockchains.

DLT in its public, open and permissionless forms is widely considered as a ground-breaking digital technology supporting decentralized methods for consensus reaching as well as sharing, storing and securing transactions and other data with fewer to no central intermediaries.

In the wake of the widespread public attention for Bitcoin, several financial applications based on blockchains are already under development. However, the potential of DLTs to generate positive social change by decentralising and disintermediating processes related to local or global sustainability challenges is still largely untapped.

Examples of social innovations in which decentralized solutions based on DLTs have shown clear benefits over conventional centralised platform solutions include, but are not limited to:

- demonstrating the origin of raw materials or products and supporting fair trade and the fair monetization of labour;
- allowing for a greater visibility of public spending and a greater transparency of administrative and production processes;
- participation in democratic decision-making by enabling accountability, rewarding of participation and/or anonymity;
- enabling the development of decentralized social networks or clouds, or of decentralized platforms for the collaborative economy;
- managing property, land registry or other public records; and
- contributing to financial inclusion.

This challenge is targeted at a wide range of actors: individuals, social entrepreneurs, civil society organisations, research centres from technological and social disciplines, creative industries, students, hackers, start-ups and SMEs. Tackling this challenge requires a multidisciplinary expertise.

***The specific rules of the contest will be published in the fourth quarter of 2017 by the European Commission, which will directly launch and manage the contest and award the prize based on the judgement of independent experts. The indicative budget for this prize is €5 million. This is expected to be allocated in five awards of €1 million each, corresponding to different social application areas.***

## *Expected results*

- Pioneering decentralized solutions to global and/or local sustainability challenges.
- Generating positive social change by making available novel solutions for decentralizing and disintermediating processes.
- Demonstrating the viability of solutions enabling a more even distribution and sharing of information and resources which respects privacy while providing levels of transparency.
- Stimulating the emerging community of developers and practitioners of "blockchains for social good" applications.

## *Eligibility criteria*

The contest is open to all legal entities (i.e. natural or legal persons, including international organisations) or groups of legal entities.

## *Essential award criteria*

The prize will be awarded, after closure of the contest, to the contestants who in the opinion of the jury demonstrate a solution that best meets the following criteria:

- Social impact: both potential and already achieved by the implementation of the solution (e.g. size of the community of users engaged by the actual implementation).
- Decentralisation and governance: improvements in transparency and accountability (while respecting privacy and/or anonymity).
- Usability and inclusiveness;
- Viability at large scale: cost-efficiency (including energy consumption), scalability, security, and sustainability;
- Clear added value of the demonstrated implementation for European citizens, in societal, economic or environmental terms.

These criteria, scoring and the weighting methodology, as well as the detailed timetable and conditions for participation, will be further defined in the Rules of Contest.

While entrants are free to commercially exploit applications and services based on the developed solutions, their source code is required to be released under an Open Source Licence.

## *Type of action*

Inducement prize

| *Indicative timetable* | |
|---|---|
| **Opening of contest** | **Fourth quarter of 2017** |
| **Deadline to submit applications** | **Second quarter of 2019** |
| **Award of prize** | **First quarter of 2020** |

## *Indicative budget*

€5 million from the 2020 budget[20]

[20] of which EUR 5.00 million from the 'Access to Risk Finance' WP part.

# 5. EIC Horizon Prize for 'Low-Cost Space Launch'

## *Challenge*

The challenge is to develop a European technologically non-dependent solution for launching light satellites[21] into Low-Earth Orbit (LEO), which will enable dedicated low-cost launches with committed schedule and orbit.

The solution needs to be innovative, implementable, affordable in development and exploitation phases, and commercially viable. Applicants are required to take a holistic approach and produce results that move beyond (but are complementary to) existing solutions. Moreover, the solution will enhance on European access to space and associated technological non-dependence and thereby will provide strategic and competitive advantages for European companies, SMEs, universities and research organisations.

Space technologies, data and services have become indispensable to the daily lives of European citizens. Moreover, development of space technology boosts jobs, growth and investments in Europe and strengthens its role in the world. Space solutions can help Europe to respond better to new global and societal challenges: climate change, disaster management, security threats, migration, farming, transport, energy and many more.

While Europe has a world-class space sector, innovation in space and changing demands are leading to an increased appearance of light and agile satellites. Consequently, space solutions will increasingly consider this trend. Small satellites are well-suited for most kinds of institutional and commercial use: wireless communications networks, Internet services, broader connectivity, scientific observation, data gathering, Earth imaging and positioning. In terms of size, light satellites rely on a lower mass in comparison with conventional satellites. Their production is more cost-effective due to series manufacturing, agility and flexibility in operations. However, light satellites will also lead to an exponential increase in launch needs by 2020-2025.

Launch opportunities in Europe for this type of satellites are currently being standardised through auxiliary payload or rideshare solutions on the European launcher fleet. However, according to market studies, light satellites are expected to lead to a significant increase in launch needs by 2020-2025.

An established service for regular launches dedicated to light satellites will contribute to achieve the following goals:

- internal market growth in the manufacturing sector of small

[21] Class 1 (mini sats): 200.1Kg – 400Kg, Class 2 (micro sats): 60.1Kg – 200Kg, Class 3 (nano sats, including 12U+): 25.1Kg – 60Kg, Class 4 (cubesats, including 1U, 3U, 6U): 1Kg – 25Kg.

launchers and satellites and the downstream services sector;

- European leading position in export markets globally in the field of light satellites and small launchers;
- space-enabled seamless solutions for European citizens thanks to operational light satellites and small launchers.

***The specific rules of the contest will be published in the fourth quarter of 2017 by the European Commission, which will directly launch and manage the contest and award the prize based on the judgement of independent experts.***

### *Expected results*

- European low-cost access to space infrastructure and services solution dedicated to light satellites.

### *Eligibility criteria*

The contest is open to all legal entities (i.e. natural or legal persons, including international organisations) or groups of legal entities established in an EU Member State or in a country associated to Horizon 2020[22].

### *Essential award criteria*

The prize will be awarded, after closure of the contest, to the contestant(s) who in the opinion of the jury demonstrates a solution that best meets the following cumulative criteria:

- Excellence;
- Technical implementation;
- Service sustainability.

### *Type of action*

Inducement prize.

| *Indicative timetable* | |
|---|---|
| **Opening of contest** | **Fourth quarter of 2017** |
| **Deadline to submit applications** | **Fourth quarter of 2020** |
| **Award of prize** | **Fourth quarter of 2021** |

### *Indicative budget*

€10 million from the 2020 budget[23]

[22] The prize relates to the development of European critical space infrastructure, which is of strategic importance and security-critical for the Union and its Member States. Therefore:
(1) participation in this prize contest will be limited to legal entities established in EU Member States and Countries Associated to Horizon 2020;
(2) the rules of contest will:
(a) stipulate that a proposal may be rejected for security reasons;
(b) provide further details on the obligation to develop and deploy the solution in an EU Member State.

[23] of which EUR 5.00 million from the 'Leadership in Enabling and Industrial Technologies - Space' WP part, EUR 5.00 million from the 'Access to Risk Finance' WP part.

# 6. EIC Horizon Prize for 'Affordable High-Tech for Humanitarian Aid'

## *Challenge*

The challenge consists of developing innovative solutions for the delivery of humanitarian aid based on frugal application of advanced technologies.

The European Union and its Member States are major humanitarian donors. Humanitarian crises and disasters have increased in number, complexity and severity over the last 25 years. Given the scale of today's crises and disasters, funding to cover humanitarian needs cannot keep up. The humanitarian system is being challenged to do more, for more people, and at greater cost. Cooperation between international organisations and NGOs responding to crises, end-users and local actors, research and scientific communities and the private sector is crucial in this respect. Introducing innovative solutions for the delivery of humanitarian aid could help enhance the humanitarian response, which is particularly important for those in a most vulnerable situation.

Solutions should be developed through a frugal innovation approach, and should be novel and based on advanced technologies and services, demonstrating the added value and potential of one or more advanced technologies (no Information and Communication Technology-only solutions). Tested and proven in a humanitarian aid delivery, these solutions should be safe, scalable, resource-sustainable, replicable and usable in other contexts.

Innovative solutions should be inclusive, i.e. co-created and developed by different stakeholders with local actors, and accessible to a large number of people in a given context of humanitarian aid delivery settings.

***The specific rules of the contest will be published in the fourth quarter of 2017 by the European Commission, which will directly launch and manage the contest and award the prize based on the judgement of independent experts. The indicative budget for this prize is €5 million from the 2020 budget. This is expected to be allocated in five awards of €1 million, each in a different area such as shelter, water and sanitation, energy, heating or cooling, food, hygiene and medical care.***

## *Expected results*

- More cost-effective, more sustainable and higher-quality innovative solutions, leading to an optimised use of humanitarian funding and an enhanced response to urgent needs in a humanitarian aid setting, notably for those in a most vulnerable situation in areas such as shelter, water and

sanitation, energy, heating or cooling, food, hygiene and medical care.

### *Eligibility criteria*

The contest is open to all legal entities (i.e. natural or legal persons, including international organisations) or groups of legal entities.

### *Essential award criteria*

The prize will be awarded, after closure of the contest, to the contestants who, in the opinion of the jury, demonstrates a solution that best meets the following cumulative criteria:

- New solution tested successfully in a real environment, with a demonstrated potential of adaptability and scalability under different humanitarian aid settings and responding to the needs of those in a most vulnerable situation (taking age, gender, disability and minority into consideration).
- Quality and sustainability of the solution based on frugal application of advanced technologies, including the technological components (no ICT-only solutions).
- Affordability and improved cost-effectiveness for beneficiaries and organisations responding to crisis.
- Engagement with end users and perspective of a business case.

### *Type of action*

Inducement prize

| *Indicative timetable* | |
|---|---|
| **Opening of contest** | **Fourth quarter of 2017** |
| **Deadline to submit applications** | **First quarter of 2020** |
| **Award of prize** | **Fourth quarter of 2020** |

### *Indicative budget*

€5 million from the 2020 budget[24]

[24] of which EUR 5.00 million from the 'Access to Risk Finance' WP part.

**OTHER ACTIONS**

# EIC Exploratory Actions

# EIC Exploratory Actions

**EIC Exploratory Actions explore new possibilities for supporting breakthrough, market-creating innovations at EU level. They pave the way for novel, full-scale initiatives that may be rolled out after the EIC's pilot phase.**

## 1. 'Crowdfunding for R&I' pilot

Building on the findings of a recent study[25], one to be undertaken in 2018[26] and the first outcomes of a support action for SMEs[27], this exploratory action under the aegis of Horizon 2020's InnovFin financial instruments will explore the potential of one or more forms of crowdfunding to foster and fund breakthrough, market-creating innovations. The initial focus will be on crowdlending and equity crowdfunding. Regarding crowdlending, market evidence suggests that a guarantee to a platform's loan portfolio can mitigate firm and project-related risks and increase access to finance for highly innovative firms. For equity crowdfunding, there is potential for public investments to catalyse more successful fundraising campaigns by seed-stage, early-stage and growth-stage entities.

Expected impact: faster scale-up of a higher volume of highly innovative SMEs and small midcaps.

Type of action: Financial Instrument.

Indicative timetable: First quarter of 2019.

Selection procedure: to be decided during 2018 using an entrusted entity to be determined.

Indicative budget: EUR 20 million from the 2019 budget[28].

[25] *Assessing the Potential for Crowdfunding and Other Forms of Alternative Finance to Support R&I*, Open Evidence, spring 2017, https://bookshop.europa.eu/en/assessing-the-potential-for-crowdfunding-and-other-forms-of-alternative-finance-to-support-research-and-innovation-pbKI0116636/.

[26] *Using Crowdfunding, Artificial Intelligence and Other Novel Ways of Evaluating Proposals for Breakthrough and Market-Creating Innovations* —see under 'EIC Support Actions' in this work programme part.

[27] See call ALTFI-01-2017 in the Horizon 2020 work programme 2016-2017 part on 'Access to Risk Finance': Improving access by innovative SMEs to alternative forms of finance.

[28] of which EUR 20.00 million from the 'Access to Risk Finance' WP part.

**OTHER ACTIONS**

# EIC Support Actions

# EIC Support Actions

## What's on offer, and how you can benefit

**EIC Support Actions build on initiatives started under the SME Instrument and will evolve during the pilot phase in the light of needs and demands.**

### 1. EIC Evaluators' Community

A reliable and trusted evaluation system is crucial for the success of the EIC pilot, and a community of expert evaluators is one of its most important assets. The pool of evaluators supporting the evaluations contains around 2500 experts. The Evaluators' Community will be created through a gathering of these experts in early 2018 focused on explaining and clarifying the objectives of the EIC pilot. Briefing materials, presentations and webinars will also be created and delivered.

Subject-matter of the contract(s) envisaged: preparation, execution and follow-up of events; design, delivery and evolution of media and information dissemination products and services.

Type of action: Public Procurement – one specific service contract.

Indicative timetable: fourth quarter of 2017.

Indicative budget: €0.95 million from the 2018 budget.

### 2. EIC Community Platform

An interactive platform for SME Instrument beneficiaries was created under the Horizon 2020 work programme 2016-2017. The duration, functionalities and services provided through this platform will be extended to encompass all SMEs that are EIC grant beneficiaries.

The platform will be linked to platforms offering services provided by InvestHorizon, such as investment-readiness training and introductions to investors, and by Startup Europe, such as the Web Investors Forum, the Accelerator Assembly, and the Crowdfunding Network. It will be supported till at least the end of 2020.

The action will support the extended community platform and its underlying activities, i.e.:

- ☐ *Promotion* through online and live interaction with potential investors, large enterprises, and public and private procurers, who will be able to create a profile on the platform for information-sharing and matchmaking.
- ☐ *Mentoring* through the creation of matchmaking profiles for mentors and mentees.

- *Participation in events* such as trade-fairs and major innovation or business conferences in Europe.
- *Access to existing services* offered by the Enterprise Europe Network (EEN), the EU Single Access to Finance Portal, the EU IPR Helpdesk, the European Observatory against Infringements of IPR, the Procurement of Innovation Platform, and other offerings at EU, national and regional levels such as the Thematic Smart Specialisation Platforms that could be of interest to participants in the EIC pilot.
- *Integration of data and insights from the Innovation Radar initiative* about EU–funded innovators and innovations, and acquisition of other financial, investment, patents and altmetrics data and analytics. This data will be leveraged to improve links between innovators with specific financing (or other 'go to market') needs and investors.
- *Procurement marketplace* to help SMEs to commercialise their innovations as first clients of public-sector innovation procurers, take advantage of public procurement opportunities, and better understand how the procurement market works and how to bid for procurements. There will also be activities to encourage public procurers to organise open-market consultations before procuring in order to give SMEs enough time to prepare bids and team-up with larger companies when bidding.
- Connection to *Lean LaunchPad* online and face-to-face training courses (Lean LaunchPad® is a widely taught entrepreneurship methodology for testing and developing business models based on querying and learning from potential users and customers).

This is not necessarily an exhaustive list.

Subject-matter of the contracts envisaged: design, evolution and maintenance of online interactive platform; design, implementation and evolution of products and services delivered or deployed via the platform.

Type of action: Public Procurement — several service contracts or extension of existing service contract(s).

Indicative timetable: first quarter of 2018 and first quarter of 2019.

Indicative budget: €1.50 million from the 2018 budget and €1.50 million from the 2019 budget.

## 3. EIC Events

EIC Events support international cooperation between highly innovative European SMEs and other entities both within Europe and in other parts of the world. They are designed to catalyse breakthrough innovations and speed up commercialisation.

A typical Event features investor pitching and a series of networking sessions and matchmaking socials to help you find potential collaborators, mentors, lenders and

investors, corporate partners and public procurement opportunities. Local universities and other public research organisations looking to commercialise research results are invited.

Each Event addresses innovation in the large, though some sessions may focus on particular sectors or geographies according to local circumstances and demand. To help SMEs get the most from participating in a Summit, follow-up support is available to facilitate business cooperation with other entities based either in or outside Europe.

Subject-matter of the contract envisaged: preparation, execution and follow-up of events.

Type of action: Public Procurement – one service contract.

Indicative timetable: third quarter of 2019; third quarter of 2020.

Indicative budget: €0.45 million from the 2019 budget; €0.45 million from the 2020 budget.

## 4. Expert Group to advise on the design of a European Innovation Council

The High Level Group (HLG) of Innovators ('expert group'), which was established in January 2017 with an initial duration of two years, may have its mandate renewed for the period 2019-20 in order to complete its work in advising the Commission on the possible design of a European Innovation Council (EIC).

The work of the expert group will build on early experience gained with the implementation of EIC pilot measures for the 2017-2018 period under Horizon 2020. Advice provided by the HLG will ensure future EU-level support for innovation takes advantage of existing best practices for innovation support in Europe and that it responds to the needs of entrepreneurs/innovators. The experts have in-depth knowledge in the field of market-creating innovation and related financial instruments, national and regional innovation programmes, and start-up/scaling up of innovative companies.

The activities carried out by the group will be essential to the development and monitoring of the Union policy on Research, technological development and demonstration.

A special allowance of €450/day for each full working day spent assisting the Commission in terms of Article 21 of Decision C(2016)3301 will be paid to the highly qualified specialists appointed in their personal capacity who act independently and in the public interest. This amount is considered to be proportionate to the specific tasks to be assigned to the experts, including the number of meetings to be attended and possible preparatory work.

Type of Action: Expert Contracts

Indicative timetable: 2019 and 2020

Indicative budget: €0.45 million from the 2018 budget[29]

## 5. Using crowdfunding, artificial intelligence, blockchain and other novel approaches to help evaluate proposals for breakthrough and market-creating innovations

In fields as diverse as scientific research, entrepreneurship and the arts, crowds of interested stakeholders are increasingly responsible for deciding which innovations to fund, a task largely performed at present by business angels and venture capitalists, lenders or experts hired by grant-making bodies. Little is known about how much the crowd differs from investors, lenders or experts in judging which proposals to support, how rational the crowd is in making funding decisions, and what tools might best assist the crowd in this process. Artificial intelligence (AI) is also being tested in many areas as a complement to human judgment in making funding and investment decisions. In addition, experiments with using blockchain for managing and verifying business identities, records and transactions are underway. This study will examine the potential of using crowdfunding, AI, blockchain and other novel approaches to help evaluate close-to-market innovation-driven proposals, especially those submitted in response to the SME Instrument call.

Type of action: Public Procurement – use of an existing framework contract – one direct service contract.

Indicative timetable: first quarter of 2018.

Indicative budget: €0.15 million[30].

[29] of which EUR 0.45 million from the 'Europe in a changing world – Inclusive, innovative and reflective societies' WP part.
[30] of which EUR 0.15 million from the 'Access to Risk Finance' WP part.

# Budget for European Innovation Council pilot

| | | Budget in € millions | | |
|---|---|---|---|---|
| | Budget-line | 2018 | 2019 | 2020 |
| **Calls** | | | | |
| H2020-SMEInst-2018-2020[31] | 08.020800 | 479.74 | 552.26 | 600.99 |
| H2020-FTI-2018-2020[32] | *See footnote* | 100.00 | 100.00 | 100.00 |
| H2020-FETOpen-2018-2020[33] | 09.040101 | 185.70 | 165.50 | 364.00 |
| **Other actions** | | | | |
| EIC Horizon Prizes[34] | *See footnote* | | | 40.00 |
| Public procurements[35] | *See footnote* | 2.60 | 1.95 | 0.45 |

[31] The SME Instrument call is financed from the single budget-line 08.020800 for a total, at minimum, of €1611.52, of which at least €160.50 million stems from 'Industrial leadership - Leadership in nanotechnologies, advanced materials, biotechnology and advanced manufacturing and processing', €305.73 million from 'Industrial leadership - Leadership in information and communications technology', €57.93 million from 'Industrial leadership - Leadership in space', €248.47 million from 'Societal Challenge 1 - Improving lifelong health and wellbeing', €129.54 million from 'Societal Challenge 2 - Securing sufficient supplies of safe and high-quality food and other bio-based products', €233.61 million from 'Societal Challenge 3 - Making the transition to a reliable, sustainable and competitive energy system', €236.92 million from 'Societal challenge 4 - Achieving a resource-efficient, environmentally-friendly, safe and seamless European transport system', €108.82 million from 'Societal challenge 5 - Achieving a resource-efficient and climate change resilient economy and a sustainable supply of raw materials', €51.38 million from 'Societal challenge 6 - Fostering inclusive, innovative and reflective societies', and €67.65 million from the 'Societal challenge 7 - Fostering secure European societies' WP parts. While these amounts are indicatively dedicated to the respective domain concerned, the SME Instrument will operate bottom-up and its budget will, as a whole, support firms developing the breakthrough, market-creating innovations that can occur, in particular, at the intersection between different technologies, industry sectors and scientific disciplines.

[32] The FTI Pilot call is financed for a total of €300 million (€100 million per year of implementation), of which at least €30.31 million was originally assigned to 'Industrial leadership - Leadership in nanotechnologies, advanced materials, biotechnology and advanced manufacturing and processing', €53.45 million to 'Industrial leadership - Leadership in information and communications technology', €10.11 million to 'Industrial leadership - Leadership in space', €52.25 million to 'Societal Challenge 1 - Improving lifelong health and wellbeing', €26.70 million to 'Societal Challenge 2 - Securing sufficient supplies of safe and high-quality food and other bio-based products', €40.96 million to 'Societal Challenge 3 - Making the transition to a reliable, sustainable and competitive energy system', €44.28 million to 'Societal challenge 4 - Achieving a resource-efficient, environmentally-friendly, safe and seamless European transport system', €21.28 million to 'Societal challenge 5 - Achieving a resource-efficient and climate change resilient economy and a sustainable supply of raw materials', €9.06 million to 'Societal challenge 6 - Fostering inclusive, innovative and reflective societies' and €11.61 million to 'Societal challenge 7 - Fostering secure European societies' WP parts.

[33] The FET Open call is financed from the 'Strengthening research in future and emerging technologies' WP part.

[34] EIC Horizon Prizes are financed for €30.00 million from the 'Access to Risk Finance' WP part, for €5.00 million from the 'Nanotechnologies, Advanced Materials, Biotechnology and Advanced Manufacturing and Processing' WP part and for €5.00 million from the 'Leadership in Enabling and Industrial Technologies - Space' WP part.

[35] Public procurements are financed for €4.85 million from the SME instrument budget line and for €0.15 million from the 'Access to Risk Finance' WP part.

| | | | | |
|---|---|---|---|---|
| Expert contracts[36] | 08.020306 | 0.45 | | |
| Financial instruments[37] | 08.020202 | | 20.00 | |
| **Estimated total budget** | | 768.49 | 839.71 | 1105.44 |

[36] This action is financed from the 'Europe in a changing world – Inclusive, innovative and reflective societies' WP part.
[37] This action is financed from the 'Access to Risk Finance' WP part.