Horizon 2020 – Structure and themes

I Excellent Science

1. European Research Council (ERC)
2. Future and Emerging Technologies *) (FET).
   a) Open
   b) Proactive
   c) Flagships
3. Marie Skłodowska-Curie (MSCA) – actions: training, career development and mobility for researchers
4. Research Infrastructures

II Industrial Leadership

1. Leadership in Enabling and Industrial Technologies
   1.1. ICT
   1.2. nanotechnology
   1.3. materials
   1.4. biotechnology
   1.5. manufacturing and processing
   1.6. space
2. Risk finance: loans & equity funding
3. Innovation in SMEs
4. EIC Pilot *) 2018 -> EIC Pilot Accelerator incl. SME instrument

III Societal Challenges

1. Health, demographic change and wellbeing
2. Food security, sustainable agriculture and forestry, marine, maritime and inland water research and bioeconomy
3. Secure, clean and efficient energy
4. Smart, green and integrated transport
5. Climate action, resource efficiency and raw materials
6. Europe in a changing world: inclusive, innovative and reflective societies
7. Secure societies – protecting freedom and security of Europe and its citizens

Several options for SME participation!

- 20% of the budget or pillars II + III to SMEs
- SME Instrument (1/3)
- Collaborative projects (2/3)

Science with and for society, Spreading excellence and widening participation

<table>
<thead>
<tr>
<th>Joint Research center JRC</th>
<th>European Institution of Innovation and Technology EIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuclear research EURATOM</td>
<td></td>
</tr>
</tbody>
</table>
EIC Accelerator Pilot (SME Instrument)

For SMEs with truly innovative product / service with significant commercial potential “European Champion League”

Only for-profit SMEs (individual SMEs)

For companies aiming at fast international growth

Innovation very close to commercialisation – not R&D funding!

fully bottom up

Technology Readiness Level (TRL) 6->

Määräajat:
9.10.2019
8.1.2020
18.3.2020
19.5.2020
7.10.2020
Technology Readiness Level & Funding rates

**Horizon 2020 opportunities vs. national funding:**
- Higher funding rates for industry
- Pre-payments
- Close to market activities funded with grants
- EIC Pilot Accelerator offers grant + equity option

**Tutkimuksellisen työn osuus:**
- BF näkemys: 100-60%
- Myynti, jakelu: 50-0%
## SME Instrument – what?

<table>
<thead>
<tr>
<th>Phase 1: Concept and feasibility assessment – <strong>last cut off 5.9.2019!</strong></th>
<th>Phase 2: R&amp;D, demonstration, market replication</th>
<th>Phase 3: Commercialisation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input:</strong></td>
<td><strong>Input:</strong></td>
<td><strong>Activities:</strong></td>
</tr>
<tr>
<td>• Idea/Concept :</td>
<td>• “Business Plan II” plus description of activities under Phase II (~30 pages)</td>
<td>• Promote instrument as quality label for successful projects</td>
</tr>
<tr>
<td>• “Business Plan I” (~10 pages)</td>
<td></td>
<td>• Support via networking, training, coaching, information, addressing i.a. IP management, knowledge sharing, dissemination</td>
</tr>
<tr>
<td><strong>Activities:</strong></td>
<td>• Feasibility of concept</td>
<td>• Business acceleration services; trade fairs etc.</td>
</tr>
<tr>
<td>• Risk assessment</td>
<td>• Risk assessment</td>
<td>• No direct funding for the above</td>
</tr>
<tr>
<td>• IP regime</td>
<td>• IP regime</td>
<td>• Facilitate access to private finance</td>
</tr>
<tr>
<td>• Partner search</td>
<td>• Partner search</td>
<td>• SME window in the EU financial facilities (debt facility and equity facility)</td>
</tr>
<tr>
<td>• Design study</td>
<td>• Design study</td>
<td></td>
</tr>
<tr>
<td>• Pilot application intention</td>
<td>• Pilot application intention</td>
<td></td>
</tr>
<tr>
<td><strong>Output:</strong> elaborated</td>
<td><strong>Output:</strong> elaborated</td>
<td><strong>Output:</strong> investor-ready “Business plan III”</td>
</tr>
<tr>
<td>• “Business plan II”</td>
<td><strong>Output based payments:</strong></td>
<td><strong>Output based payments:</strong></td>
</tr>
<tr>
<td><strong>Lump sum:</strong></td>
<td>• Development, prototyping, testing</td>
<td>• 0,5 to 2,5 M€ EC grant ~12 to 24 months</td>
</tr>
<tr>
<td>EC grant 50.000 €</td>
<td>• Piloting innovative processes, products and services</td>
<td></td>
</tr>
<tr>
<td>• ~ 6 months</td>
<td>• Miniaturisation/design of products</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Planning &amp; developing scaling-up (market segments, process etc.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Market replication</td>
<td></td>
</tr>
</tbody>
</table>

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**Phase 1 recommended**

**but direct application to Ph2 possible**

**New: Equity option up to € 15 Mio.**
Accelerator Pilot – Blended Finance

- Blended finance
  - Grant + equity
  - To scale faster
  - EIC to share risk and raise the interest of private investors/VC’s

- Grant similar to SME Instrument phase 2 <2,5 M€
- Equity by EIC Fund <15 M€
  - Investment instruments depend on co-investors
  - Equity or convertible bond/loan (vaihtovelkakirjalaina)
  - Conversion to shares is based on the valuation of the next round
  - Milestones and tranches
  - Hands off, no board seat, standard information rights
  - Exit schedule and path needs to be discussed with EIC Fund

- Learning by doing in Accelerator Pilot
Hakuprosessi - linkit

- Funding and Tender Opportunities Portal
- EIC Accelerator Guidelines for Applicants
- EIC Accelerator (Phase 2) proposal template
  - (lataa aina viimeisin versio F&T-portaalista)
- Self-evaluation form
- EIC Accelerator (Phase 2) Model Grant Agreement
- EIC Pilot Work Programme
Accelerator Pilot
Step-by-step

1. Submission of Proposals
2. Remote Evaluation
3. Ranking of Proposals
4. Interview
5. Grant Agreement

In case of blended finance option:
- Due Diligence
- Equity Investment
Concrete changes in the submission and evaluation process in relation to the new features in the WP

- New Submission Templates
- Revised criteria and weightings
- Revised setup, process and criteria
- New Model Grant Agreement

Responsibility:
- Applicants
- EC Evaluation
- Experts
- SPV

Research and Innovation
Major revision of the submission forms to fit with the scope and objectives of the EIC Accelerator Pilot

Rationale

- Collect information needed for the evaluation of blended finance proposals
- Further align the proposal content with regular business plan structure
- Get additional information on financial situation, projections and capabilities

Structure

Part A – Administrative form

Additional call specific questions:

- Request for blended finance and associated equity amount requested
- Consent to receive counter-offer with requested grant amount for activities above TRL8 in the form of blended finance

Part B – Proposal Template

- Introduction
- Section 1 – Excellence
- Section 2 – Impact
- Section 3 – Implementation

Document 1 (30 pages max – pdf)

- Annex 1 – Security and Ethics
- Annex 2 – CVs
- Annex 3 – Others

Document 2 (no page limit – pdf)

- Annex 4 – Financial & Corporate Information

Document 3 (no page limit – pdf and xls)

- Annex 5 – Pitch deck

Document 4 (no page limit – pdf)
Part A – Importance of the call specific questions

5 - Call specific questions

Call specific declaration(s)

Are you requesting blended finance (combination of a grant with an investment in equity)?

☐

If you are applying for grant-only, and should the evaluation conclude there are activities above TRL 8 in your proposal, do you give the European Commission consent to provide the requested amount of funding in the form of blended finance?

☐ Yes  ☐ No

- Not considered for blended finance
- If applicants cannot demonstrate they have the ability to secure resources for the activities above TRL 8, the proposal will be rejected
- If such an ability is properly demonstrated, applicant can receive the grant requested reduced by the budget of the Work Package(s) containing activities above TRL 8

Applicants of proposals selected to be funded will receive a blended finance offer.

- Grant part will be the requested amount in the proposal, reduced by the budget of the Work Package(s) containing activities above TRL 8.
- Equity part will include the sum of the budget for the Work Package(s) containing activities above TRL 8.
### Part B / Section 1-3 – Alignment of the structure with business canvas, simplification and new requirements

#### Structure

<table>
<thead>
<tr>
<th>Introduction</th>
<th>1 - Excellence</th>
<th>2 - Impact</th>
<th>3 - Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Basic information &amp; summaries (1)</td>
<td>- Idea and solution</td>
<td>- Market and customers</td>
<td>- Team and capabilities</td>
</tr>
<tr>
<td></td>
<td>- Innovativeness</td>
<td>- Commercialisation strategy</td>
<td>- Financing needs (3)</td>
</tr>
<tr>
<td></td>
<td>- Stage of development</td>
<td>- External strategic partners</td>
<td>- Need EIC support (4)</td>
</tr>
<tr>
<td></td>
<td>- Feasibility and risks</td>
<td>- IP</td>
<td>- Risks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Scale-up potential (2)</td>
<td>- Approach</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Resources</td>
</tr>
</tbody>
</table>

#### Simplified

- Newly introduced or increasing focus

1. Help to get a rapid understanding of the innovation and put in context
2. Increased focus in the WP, including in step 2 of the evaluation
3. (4) Newly introduced in the WP (leveraging of investments and non-bankability)
Annex 4 – Financial & Corporate Information will support the evaluation of the award criteria

<table>
<thead>
<tr>
<th>Structure</th>
<th>Particular Use / Relevance</th>
</tr>
</thead>
</table>
| Table 1 – Simplified financials | - Financial information required to substantiate the financial needs, being for grant-only and blended finance  
- Ownership & capital structure is relevant for blended finance requests to understand nature and importance of owners  
- Information on current financing round will be useful to explain the remaining financing provided by other sources  
- Cashflow gives indication on solvency and ability to further finance the innovation  
- Financing track-records and current efforts will be used to substantiate the need for EIC support |
| - Profit & Loss  
- Cash flows  
- Balance sheet  
- Business metrics and ratios | |
| Table 2 – Company financial data | |
| Table 3 – Company financing history | |
| Table 4 – Company ownership and capital structure (Blended applicants only) | |
| Table 5 – Current financing round | EVALUATION ⇒ Implementation / leveraging of investments and non-bankability – Step 1 & 2  
- Simplified financials will also be used to quantify the scale-up potential of the innovation (impact)  
- EVALUATION ⇒ Impact / potential to scale-up – Step 1 & 2 |
| ! Figures for the company in k€ | |

Research and Innovation
Vinkkejä hakemukseen

- Hyvä hakemus on selkeä, ytimekäs ja helposti ymmärrettävä, looginen ja ehjä kokonaisuus
- Sisällön lisäksi ammattimainen vaikutelma (kieli ja ulkoasu)
- Kaikista osioista tarvitaan hyvät pisteet
- Perustele ja argumentoi, älä oleta - arvioija on alan ja/tai liiketoiminnan asiantuntija, mutta ei tiedä kaikkea
- Älä toista samaa tekstiä monta kertaa
- Tiivistelmä ja johdanto luetaan ensin – tee niistä selkeät ja ymmärrettävät, myy hanke heti kättelyssä
- Taulukoita ja kuvia kannattaa käyttää melkein joka sivulla
- Varaa riittävästi aikaa ja hio hakemus valmiiksi ennen sen lähettämistä – vaatimustaso on korkea!
- Keskustele aiheesta ja tarkistuta hakemus NCPIlää ja muilla ulkopuolisilla
Statistika osallistumisesta
H2020 SME Instrument Phase 2
Suomalaiset osallistujat 19.8.2019 EASME Data Hub

60 PARTICIPANTS  82,86M€ ALLOCATED

Suosituimmat aiheet:
ICT
Ekoinnovaatiot & raaka-aineet
Energia
Rakentaminen & liikenne
Rahoituksensaajat (sme.easme-web.eu)

EIC SME Instrument data hub

- 720 DEGREES OY
- AB NANOL TECHNOLOGIES OY
- ADAMATIC OY
- ALLECO OY
- ALPHASENSE OY
- ANGULAR VELOCITY OY
- ARCTIC IP INVESTMENT AB
- AURELIA TURBINES OY
- Attax Oy
- BIOLAN OY
- BIOMENSIO OY
- BIONOVA LTD
- BITTILIM BIOSIGNALS OY
- BLACK DONUTS ENGINEERING OY
- BRIGHTERWAVE OY
- BRIGHTPLUS OY
- Benete Oy
- Black Bruin
- CH-Bioforce Oy
- CLOUDSTREET OY

BIOMENSIO OY

http://www.biomensio.com

Project: BioMensio mobile biosensing platform: the first truly palm-sized and accurate digital multi-drug test

Project Acronym: BioMensio

Project Phase: Phase 2

In the EU, well over 8 million people have been found to drive under the influence of illicit drugs. In the US, fatal traffic accidents caused by drugged driving has already surpassed alcohol-induced traffic deaths. Drug intoxication testing is an efficient mechanism that helps to avoid drug-related fatalities, such as traffic accidents or heavy machinery mishandling. However, the current testing solutions are not suited for wide scale deployment and thus cannot make a meaningful impact in the war against drugs. They are hampered by the bulkiness and high cost of instrumentation, uncertain levels of accuracy, and inability to detect the growing variety of drugs. BioMensio multi-drug testing platform is the first palm-sized and highly accurate device to detect drug intoxication from saliva, designed specifically for the police to detect drugged drivers, paramedics to better understand patient condition, and employers to prevent workplace injuries. Our patented bio-sensing technology enables to simultaneously measure a person’s intoxication from virtually any widely used narcotics, in an easy-to-administrate test that provides results in just 1-2 minutes. This by far exceeds the performance of any other current or up-and-coming technology. BioMensio is a spin off company from Siemens Technology Accelerator and VTT Technical Research Centre of Finland, and has been backed with €3.5 million early stage funding. We are now beyond the proof-of-concept phase and are ready to scale our technology. We target the globally growing €1 billion saliva-based rapid drug testing market, which is fuelled by increasingly stringent government norms and workplace drug testing legalisation worldwide. As the key to reduce drug related fatalities and injuries is widely deploying and applying preventative tools, the main goal of our project is bring our patented bio-sensing platform to the mass market.

Topic: Biotechnology

Total budget: 3 560 030 €

EU Contribution: 2 492 021 €

Call ID: H2020-SMEinst-2019-2020-2

Participants:
- BIOMENSIO OY (Coordinator) - Finland
Optomed Oy
H2020 SME-2: 1.8.2017-31.7.2019, EU-tuki €1.97M (70%)

Optomed Oy myy kustannuksiltaan alhaisia digitaalisia kuvantamislaitteita ensisijaisesti silmänpohjakuvaukseen ja silmätutkimukseen.

• Liiketoimintamallina on myydä laitteita jakelijaverkoston kautta loppuasiakkaille ja toimia OEM valmistajana sekä kehittää palvelutoimintaa (etädiagnostiikka). Päätuote fundus-kamera, joka on tarkoitettu silmänpohjan sairauksien seulontakuvaluksiin ja muutosten dokumentointiin.

• Juha Tanskanen: ”Optomed Oy:n liikevaihdosta suuri osa syntyy viennistä ja yrityksellä on hyvät mahdollisuudet laajentaa toimintaansa ja kasvaa kansainvälistymisen avulla. SME-2 rahoitus tukee yrityksen kansainvälistymistä uusille markkinoille ja vahvistaa asemaa nykyisillä markkinoilla.”
ESSENCE AND OBJECTIVES

“Innovation is fostered when new ideas can emerge and easily translate into socioeconomic value, shaping new markets and laying the foundations of a stronger, high-tech industrial base for Europe.” (From the EIC work program, p. 23)

The Fast Track to Innovation program funds **breakthrough innovation projects**, in **small industrial consortiums** (3-5 participants). This program helps to **accelerate the market up-take** of projects, by providing funding to innovative ideas and **co-creation**, for all types of entities, in different sizes and across Europe.

The FTI scheme targets relatively mature **technologies, processes** and **business models**, which need final development and a “**last push**”. It supports actions undertaking innovation from the **demonstration stage towards market uptake** (no more than a 3 year time frame). **Eligible actions** could be: piloting, test-beds, systems validation in real-world working conditions, validations of business models, pre-normative research, standard-setting, etc.
CALL CONDITIONS FOR FTI

- A **consortium** must consist of 3-5 participants and must be from at least three different states of the EU or Associated Countries. Participants are legal entities, minimum 3 from 3 different countries, **independent of each other** (see the definition independence in the [rules of participation](#), article 8).

- **Industry** involvement is mandatory:
  - Allocation of at least **60%** overall budget to industry; or
  - **Min. 2** industry partners out of a consortium of 3-4; or
  - **Min. 3** industry partners out of a consortium of 5

- All subjects are eligible for submission (it is a ‘**bottom-up**’ scheme).

- Maximum grant per consortium from **1 to 3 million Euros**.

- All consortium members established in EU Member States or in [associated countries](#) to Horizon 2020.

- **Technology Readiness Level** (TRL) is at least **TRL 6** (or similar phase of development in non-technological innovation). That means a demonstrator of the innovation is available and works in a “real life” environment.

- The intention is to bring the TRL up to level 8 (system complete) and to start commercialization within three years from the beginning of the project.
EIC - Smart Money

Funding

Global Business Coaching & Mentoring

Business Acceleration Services
EIC PILOT – Business Coaching and Acceleration Services

Coaching rationale with EIC programs ....

- Business Development ≠ Research & Technology
- 75% of Innovation Success ≡ Strategy & Leadership
- Coaching: 70% of companies survive five years
- We owe the impact to the taxpayer

Coaching Implementation

- Grant is for project, coaching is for company
- Coaching is based on specific business context
  - Life cycle maturity, market position
- Based on Needs Analysis (by E.E.N. Key Account Manager)
  - Is there a sound strategy?
  - Is company ready to implement strategy?
- Company selects a matching coach from KAM suggestions.
What we do so far...

- Corporate days
- Investor days
- Investor/SME Matchmaking tool: ScaleUpEU
- Online EIC community Platform
- Academy sessions & Training
- Access to European & International Trade fairs
What will soon come on top?

- Activities with public & private procurers
- Activities for early stage/researchers
- Visit to European innovation hubs (pilot)
- Peer2peer learning workshop(s) & enhanced training activities
Coaching ≠ Consulting

Consulting

- **Answering**, is advice by expert
- about IP, HR, market study

Coaching is learning and solving:

- **Challenging**, is asking questions
- Coach/SME identify problem together
- Coach helps to optimise ‘how to work’, is encouraging

(Mentoring is advice from experience)
EIC Community rationale

Purpose?

Business development for all EIC beneficiaries – SMEs and researchers

- **Partnering** (investors, corporates, peers, pub./priv. procurers)
- **Events** for pitching/networking
- **Market/Challenge** place
- **Mentoring**, signposting
- **How-to/success stories**, role models, skills
- **Main communication** tool between EIC benef. & the EIC BAS team

For whom?

- EIC SMEs’ beneficiaries
- Selected investors / Corporates / pub./priv. procurers / Researchers
- Coaches + KAMs, EIC staff, DGs
EIC Horizon Prizes

Principles

- Address difficult societal or technological challenges through game-changing innovation
- Accelerate the development of effective solutions and promote market uptake
- Apply out-of-the-box, innovative thinking
- Open participation across sectors and disciplines – innovators, start-ups and scale-ups, entrepreneurs, etc.
# EIC Horizon Prizes 2019-2021

<table>
<thead>
<tr>
<th>SIX CHALLENGE-DRIVEN PRIZES</th>
<th>VALUE</th>
<th>DEADLINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFFORDABLE HIGH-TECH FOR HUMANITARIAN AID</td>
<td>€5 million</td>
<td>2020</td>
</tr>
<tr>
<td>BLOCKCHAINS FOR SOCIAL GOOD</td>
<td>€5 million</td>
<td>2019</td>
</tr>
<tr>
<td>INNOVATIVE BATTERIES FOR EVEHICLES*</td>
<td>€10 million</td>
<td>2020</td>
</tr>
<tr>
<td>FUEL FROM THE SUN: ARTIFICIAL PHOTOSYNTHESIS</td>
<td>€5 million</td>
<td>2021</td>
</tr>
<tr>
<td>EARLY WARNING FOR EPIDEMICS</td>
<td>€5 million</td>
<td>2020</td>
</tr>
<tr>
<td>LOW-COST SPACE LAUNCH*</td>
<td>€10 million</td>
<td>2020</td>
</tr>
</tbody>
</table>

*Open to legal entities from Member States and Associated Countries only*
NCP* apunasi

- Kerromme hauista ja niiden sisällöstä
- Autamme hakuprosessissa
- Luemme ja kommentoimme hakemuksia
- Järjestämme haastattelukoulutuksia
- Seuraamme suomalaisten osallistumistilastoja
- Hyödynnämme työssä omia Brysselin-verkostojamme

*National Contact Point (NCP) = kansallinen yhteyshenkilö
Muita tiedonlähdeitä

- EASME: Enhanced European Innovation Council (EIC) Pilot
- Business Finland: H2020 pk-yritysrahoitus

Kansalliset pk-yritysten yhteyshenkilöt NCP:t
Outi Kauppinen
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Heini Günther
heini.gunther (at) businessfinland.fi

@Eutifi #H2020 #HorizonEurope #Heurope

EU-hankevalmistelijat

Horisontti 2020 -ryhmä