



Opportunities for funding in Horizon 2020

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Horizon 2020

A screenshot of a web browser displaying the European Commission's 'Funding & tender opportunities' portal. The browser's address bar shows the URL: https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-search. The page header includes the European Commission logo and the text 'Funding & tender opportunities Single Electronic Data Interchange Area (SEDIA)'. There are 'Register' and 'Login' buttons in the top right. A navigation menu below the header includes 'SEARCH FUNDING & TENDERS', 'HOW TO PARTICIPATE', 'PROJECTS & RESULTS', 'WORK AS AN EXPERT', and 'SUPPORT'. A blue banner for 'Horizon 2020 Framework Programme (H2020)' features a globe icon and a 'clear filter' button. The main content area is divided into a left sidebar and a main panel. The sidebar contains a search box with the placeholder 'Type your Keywords', a search button, and filter options: 'Match whole words only' (unchecked), 'GRANTS' (checked), and 'TENDERS' (unchecked). Below the filters are three buttons for submission status: 'FORTHCOMING', 'OPEN', and 'CLOSED'. The main panel is titled 'Funding and tenders' and shows '3689 results'. It has a 'Sort by:' section with radio buttons for 'opening date' (selected), 'title', 'ID', and 'deadline'. There is a download icon and a link to 'Download all funding and tender opportunities to your calendar or subscribe to the RSS feed (unfiltered)'. An orange button labeled 'Online manual "Find a grant"' is also present. At the bottom of the main panel, a snippet of a grant is visible: 'Grant Societal and political engagement of young people and their perspectives on'. The Windows taskbar at the bottom shows the time as 14:48 on 20-11-2019.

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/>

Photonics calls in ICT Workprogramme 2020

ICT-36-2020 Disruptive photonics technologies

ICT-37-2020 Advancing photonics technologies
and application driven photonics components
and the innovation ecosystem

DT-ICT-04-2020* Photonics Digital Innovation
Hubs

** Digitising and transforming European industry and
services: digital innovation hubs and platforms*

ICT-36-2020 Disruptive photonics technologies

Research & Innovation Actions [**47.5 M€**]

- i. 3D light field and holographic displays
- ii. Packaging and module integration for photonic integrated circuits (PIC)
- iii. Light to Fuel
- iv. Next generation biophotonics methods and devices as research tools to understand the cellular origin of diseases

ICT-37-2020 Advancing photonics technologies and application driven photonics components and the innovation ecosystem

Research & Innovation Actions [30 M€]

- i. Flexible Farm-to-Fork Sensing
- ii. Novel Photonics Integrated Circuit (PIC) Technology building blocks

Innovation Actions [15 M€]

- iii. Smart Photonic for Environmental Pollution Detection Sensing

DT-ICT-04-2020: Photonics Innovation Hubs

Innovation Actions [19M€]

The challenge is to provide a **sustainable ecosystem** of research and innovation support for the benefit of SMEs facilitating a broad uptake and integration of photonics technologies.

These Photonics Innovation Hubs will help speed up the uptake of photonics technologies in order to make European industry more competitive and foster new business and business models.

Business cases must be industrially relevant and should include industrialisation steps to TRL of 7 - 8

Digital Innovation Hubs

***One-stop-shop** access, supported through a **network of competence centres**, to services and capabilities such as expertise, training, prototyping, design, engineering, business support, financing advice,... pilot manufacturing for first users and early adopters enabling the wider up-take and deployment of technologies in innovative products.*

ICT-38-2020: Artificial intelligence for manufacturing

Research & Innovation Actions [47M€]

4 to 6M€ per project

Coordination and Support Action [1M€]

0.5M€ per project

Challenge: integrate AI technologies in manufacturing/process industries

- ***Specific industrial requirements*** (real-time, reliability...)
- ***AI cooperation with humans / ethical principles***
- ***Build upon results from AI research***
- ***Realistic use cases*** (at least 2)

(Coordination & Support Actions)

- ***Standardisation, international collaboration (EU-Japan), synchronization with activities in Member States***

DT-ICT-12-2020: AI for the smart hospital of the future

Actions 7-10 M€

Innovation Actions [40 M€]

***Piloting** at scale is needed to prove the transformative impact of AI.*

*Pilots should enable or support **clinical, diagnosis and treatment**, etc. carried out with clinical outcomes comparable to human delivered procedures.*

*Proposal should be developed with **health and care facility partners***



Closing: 22 Apr 2020

Future and Emerging Technologies Pro-active

Neuromorphic computing technologies 15 M€

FETPROACT-09-2020 (RIA)

Environmental Intelligence 18 M€

FETPROACT-EIC-08-2020 (RIA)

Emerging paradigms and communities 50 M€

FETPROACT-EIC-07-2020 (RIA)

FETPROACT-09-2020: Neuromorphic computing technologies

Research & Innovation Actions [15 M€]

...to create neuromorphic technologies that can outperform current systems in terms of size, scalability, connectivity, power consumption, ease of training, flexibility, reliability or any other relevant metrics

hardware, related algorithms and programming framework

FETPROACT-EIC-07-2020 : FET Proactive: emerging paradigms and communities

Research & Innovation Actions [50 M€]

Cutting-edge **high-risk / high-reward research and innovation** projects that aim to demonstrate a new technological paradigm

Sub-topics:

- a. Future technologies for social experience.
- b. Sub-nanoscale science for nanometrology
- c. Digital twins for the life-sciences



Closing:
12 Dec 2019 (First Stage)
14 May 2020 (Second Stage)

DT-NMBP-23-2020 Next generation organ-on-chip

Actions 4-7 M€

Research and Innovation Actions – two stages [30 M€]

Scope:

- Multidisciplinary research for the OnC tech
- Demonstrator applications involving modelling, diagnosis and therapy of human disease(s) of high and yet unmet medical need
- Industrial development/piloting
- Taking into account medical regulatory requirements

Thank you!



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<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/programmes/h2020>

FET Proactive Expected Impact (i)

- Scientific and technological **contributions** to the foundation and consolidation of a radically **new future technology**.
- Potential for future **returns in terms of societal or economic** innovation or market creation.
- Spreading excellence** and building leading **innovation capacity** across Europe by involvement of key actors that can make a difference in the future

FET Proactive Expected Impact (ii)

- **Build-up of a goal oriented interdisciplinary community** (within and beyond the consortium).
- **Emergence of an innovation ecosystem** around a future technology in the theme addressed from outreach to and partnership with high potential actors in research and innovation, and from wider stakeholder/public engagement, with due consideration of aspects such as education, gender differences and long-term societal, ethical and legal implications.

FETPROACT-EIC-08-2020: Environmental Intelligence

Research & Innovation Actions [40 M€]

Subtopics:

- a. new techniques for creating and using dynamic models of environmental evolution
- b. radically novel approaches to resilient, reliable and environmentally responsible insitu monitoring.

FETPROACT-09-2020: Neuromorphic computing

Expected Impact

- Bring **neuromorphic engineering at the level where it can be benchmarked** in terms of performance, power consumption, size, latency or other relevant metric e.g., for learning capacity, speed or plasticity, and its interfaces be standardised;
- Pave the way to **market take-up of neuromorphic computing** in a range of existing and new application areas, with demonstrable advantages, either as stand-alone or complementing more conventional solutions;
- Stimulate the emergence of a **European innovation ecosystem** around neuromorphic engineering, well beyond the world of research alone.