



**SAPIENZA**  
UNIVERSITÀ DI ROMA

## **"Le opportunità di finanziamento in ambito H2020, l'approccio alla progettazione internazionale e i servizi del Grant Office"**

Giornata Informativa "Opportunità di finanziamento  
per la ricerca nell'ambito delle Neuroscienze"

Roma, 18 ottobre 2019

Emanuele Gennuso- Ufficio Promozione e  
Servizi di Supporto per le Iniziative di  
Ricerca, Settore Grant Office

# Il Programma Quadro Horizon 2020

## Focus



- **Horizon 2020:** Struttura e tipologia di azioni.
- Fonti di informazione diretta.
- Work Programme, call, topic: caratteristiche principali
- Consigli per la presentazione delle proposte
- I servizi offerti dal Grant Office



# Il Programma Quadro Horizon 2020

## Caratteristiche principali



- Horizon 2020 è il principale strumento finanziario dell'Unione Europea a favore della **Ricerca** e dell'**Innovazione**.
- Quasi 80 miliardi di euro di finanziamenti per un periodo di 7 anni (2014 - 2020), di cui **11 miliardi** per le call del 2020.
- L'obiettivo è garantire che l'Europa produca scienza e tecnologia di classe mondiale in grado di stimolare la crescita economica.
- Horizon 2020 è parte della strategia Europa 2020 per una crescita intelligente, sostenibile e inclusiva.
- Horizon 2020 si concentra su tre settori chiave (Pillars) - **Eccellenza Scientifica, Leadership Industriale e Sfide per la Società** – e su altre iniziative ad essi trasversali.





- Il Pillar "**Excellence Science**" mira a sostenere la posizione dell'UE come leader mondiale nelle scienze, attraendo i migliori cervelli e aiutando i ricercatori a collaborare e condividere idee in tutta Europa.
- Il Pillar "**Industrial Leadership**" mira ad accelerare lo sviluppo delle tecnologie e delle innovazioni alla base delle attività di domani e aiutare il settore imprenditoriale ad essere leader a livello mondiale;
- Il Pillar "**Societal Challenges**" riflette le priorità politiche della strategia Europa 2020 e affronta le principali preoccupazioni condivise dai cittadini in Europa e a livello internazionale.

# II Programma Quadro Horizon 2020

## Struttura



### Excellent Science

- **European Research Council**
  - Frontier research by the best individual teams
- **Future and Emerging Technologies**
  - Collaborative research to open new fields of innovation
- **Marie Skłodowska Curie actions**
  - Opportunities for training and career development
- **Research infrastructures** (including e-infrastructure)
  - Ensuring access to world-class facilities

### Industrial Technologies

- **Leadership in enabling and industrial technologies**
  - ICT, nanotechnologies, materials, biotechnology, manufacturing, space
- **Access to risk finance**
  - Leveraging private finance and venture capital for research and innovation
- **Innovation in SMEs**
  - Fostering all forms of innovation in all types of SMEs

### Societal Challenges

- **Health, demographic change and wellbeing**
- **Food security, sustainable agriculture, marine and maritime research & the bioeconomy**
- **Secure, clean and efficient energy**
- **Smart, green and integrated transport**
- **Climate action, resource efficiency and raw materials**
- **Inclusive, innovative and reflective societies**
- **Security society**

European Institute of Innovation and Technology (EIT)

Spreading Excellence and Widening Participation

Science with and for society

Joint Research Center (JRC)

# Il Programma Quadro Horizon 2020



## Chi può partecipare?

Horizon 2020 è aperto a tutti. I requisiti di eleggibilità e le regole per partecipare sono descritte nel Regolamento (UE) n. 1290/2013 e nei Work Programmes di riferimento

- Per i progetti di ricerca standard: un consorzio di almeno **tre persone giuridiche**. Ciascuna persona giuridica deve avere sede in uno Stato Membro (MS) o in un Paese Associato (AC) dell'UE.
- Per altri programmi – European Research Council (ERC), SME Instrument, cofinanziamento di bandi o programmi nazionali o del settore pubblico, coordinamento e sostegno, formazione e mobilità - la condizione minima di partecipazione è **una persona giuridica** con sede in un MS o AC

# Il Programma Quadro Horizon 2020



## Tipologia di azioni

- **Research and Innovation Actions - RIA.** Progetti di ricerca che possono portare allo sviluppo di nuove conoscenze o tecnologie;
- **Innovation Actions – IA.** Attività più vicine al mercato con obiettivo la produzione di prodotti o servizi nuovi o migliori (ad es. creazione di prototipi, collaudo, dimostrazione, ecc. );
- **Coordination and support actions - CSA.** Coordinamento e messa in rete di progetti, programmi e politiche di ricerca e innovazione;
- **ERC Grants.** Progetti valutati sulla base dell'unico criterio dell'eccellenza in qualsiasi campo di ricerca, svolti da un solo team di ricerca coordinato da un Principal Investigator;
- **Marie Skłodowska-Curie Actions - MSCA.** Fellowship per la formazione, la mobilità e lo sviluppo di carriera dei ricercatori;
- **Other types of actions.** SME Instrument, Fast Track to Innovation, Joint Technologies Initiatives (JTI), Pre-commercial procurement (PCP), ecc.



- **Funding & tender opportunities**

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

- **Call Page**

Descrizione del topic, Documenti di riferimento (incluso i Work Programmes e, se disponibili, le Guide per applicants) Submission service (incluso 'Start submission'), Get support (help-desk, National Contact Points, Ricerca Partner, Call Updates, ecc..)

- **Work Programmes**

Descrivono le aree e i topic di ricerca ed innovazione che saranno finanziati e indicano i tempi delle call.



# II Programma Quadro Horizon 2020

## Funding & tender opportunities



English

Register Login

select

Type your Keywords

Match whole words only

GRANTS TENDERS

Filter by submission status

FORTHCOMING OPEN CLOSED

Filter by programme (only for grants)

Select a Programme...

Filter by call for tender

Select a Call...

Clear filters

### Funding and tenders

Sort by: opening date title ID deadline

579 results

Download all funding and tender opportunities to your calendar or subscribe to the RSS feed (unfiltered).

Online manual "Find a grant"

See all calls for tenders published by EC

Grant	<b>Fast Track to Innovation (FTI) EIC-FTI-2018-2020</b>	
Types of action: Innovation action   Programme: Horizon 2020		
Open for submission	Opening date: 07 November 2017	Deadline model: multiple cut-off Deadline date: 21 February 2018 17:00:00 Brussels time more deadlines

Grant	<b>FET-Open Challenging Current Thinking FETOPEN-01-2018-2019-2020</b>	
Types of action: Research and Innovation action   Programme: Horizon 2020		
Open for submission	Opening date: 07 November 2017	Deadline model: multiple cut-off Deadline date: 16 May 2018 17:00:00 Brussels time

# II Programma Quadro Horizon 2020

## Call Page



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Funding & tender opportunities  
Single Electronic Data Interchange Area (SEDIA)

English

Register

select  
programme



SEARCH FUNDING & TENDERS ▾ HOW TO PARTICIPATE ▾ PROJECTS & RESULTS WORK AS AN EXPERT SUPPORT ▾

Dec 18, 2015

## IDENTIFICATION OF DRUGGABLE TARGETS MODULATING MISFOLDED PROTEINS IN ALZHEIMER'S AND PARKINSON'S DISEASES

ID: IMI2-2015-07-02

Type of action:

◦ IMI2-RIA Research and Innovation action

Deadline Model : two-stage

Opening: **18 December 2015**

Deadline: **17 March 2016 17:00:00 Brussels time**  
2nd stage Deadline: **06 September 2016 17:00:00 Brussels time**

Close

Horizon 2020

Horizon 2020 Website



Work programme: IMI2 Work Plan 2016

Work programme year: H2020-JTH-IMI-2016



Call name: H2020-JTH-IMI2-2015-07-two-stage | Call ID: H2020-JTH-IMI2-2015-07-two-stage  
See all topics of this call >



See budget overview

# II Programma Quadro Horizon 2020

## Call Page



Horizon 2020

[Horizon 2020 Website](#)

**Work programme:** [IMI2 Work Plan 2016](#)

**Work programme year:** H2020-JTHMI-2016

**Call name:** H2020-JTHMI2-2015-07-two-stage | **Call ID:** H2020-JTHMI2-2015-07-two-stage  
[See all topics of this call >](#)

[See budget overview](#)

[Topic description](#)

[Conditions and documents](#)

[Submission service](#)

[Get support](#)

[Call Updates](#)

[Projects list](#)

### Topic Description

Specific Challenge:

In Alzheimer's Disease (AD) extracellular depositions of amyloid beta peptides (plaques) and intracellular filamentous inclusions of tau (tangles) constitutes a hallmark of the disease. In Parkinson's Disease (PD) the neuropathology is defined by intracellular inclusions of alpha-synuclein (Lewy bodies and Lewy neurites). Recently, new scientific opportunities to identify druggable targets have arisen based on the spreading and seeding hypothesis of tau and alpha-synuclein protein as prion-like proteins. This hypothesis allows setup of *in vitro* and *in vivo* models based on tau or alpha-synuclein pathological material isolated from patients, animal models or recombinant fibrils seeded into cells or animals and with a resulting defined mechanistic readout (spreading or seeding). Thus, it is envisioned that these models may be used in a screening setup to identify new targets and later validate their druggability. Advancing and focusing the research discoveries to identify drug targets related to Alzheimer's and Parkinson's disease requires multidisciplinary approaches including targets identification screens, tool compound development and validation in a wide range of experimental cell and animal disease models. The critical mass needed and availabilities of assay models and reagents are only

[show more...](#)

### Topic conditions and documents

Please read carefully all provisions below before the preparation of your application.

You can access the **description of the different topics** in the [Call topics text](#).

The **budget breakdown** for this Call is given at the end of the [Call topics text](#), in the [Call Conditions](#) section (page 79), as well as the following information:

[Go back to search results](#)

# II Programma Quadro Horizon 2020



Work Programmes di maggiore interesse per Neuroscienze

## Societal Challenge “Health, demographic change and wellbeing”

### Call 1. Better health and care, economic growth and sustainable health systems

- 1.1 Personalised medicine
- 1.2 Innovative health and care industry
- 1.3 Infectious diseases and improving global health
- 1.4 Innovative health and care systems – Integration of care
- 1.5 Decoding the role of the environment, incl. climate change, for health and wellbeing
- 1.6 Supporting the digital transformation in health and care

### Call 2. Digital Transformation in Health and Care

Focus Area on Digitising and transforming European industry and services

### Call 3. Trusted digital solutions and cybersecurity in health and care

## Altri Work Programmes Pillar II e III

- **LEIT-NMBP**  
Nanotechnologies, Advanced Materials, Biotechnology, and Advanced Manufacturing and Processing;
- **LEIT-ICT**  
Information and Communication Technologies;
- **SC6** - Europe in a changing world - Inclusive, innovative and reflective societies;
- **SC2** Food (Safe and healthy diet).

## WP Pillar I (bottom-up approach)

- **ERC Grants** – European Research Council
- **MSCA - Marie Skłodowska-Curie** Actions;
- **FET** – Future and Emerging Technologies
- European Research Infrastructures - **INFRA**

## II Programma Quadro Horizon 2020



Topic ID	Topic Title	Deadline	Work Programme
SC1-DTH-02-2020	Personalised early risk prediction, prevention and intervention based on Artificial Intelligence and Big Data technologies - RIA	07/04/2020	SC1
<b>Specific Challenge</b>	The challenge is to develop and validate comprehensive models based on AI or other state of the art technologies for prediction, prevention and intervention using multiple available data resources and to integrate them in personalised health and care pathways that empower individuals to actively contribute to risk mitigation, prevention and targeted intervention.		
<b>Scope</b>	<ul style="list-style-type: none"> <li>• Introduce innovative ICT solutions through data, data analytics, advanced or novel digital technologies, services, products, organisational changes, and citizens data ownership, that lead to more effective health and care systems.</li> <li>• Build on the use of already existing and/or new data with a view to developing personalised early risk prediction, prevention and intervention approaches</li> <li>• Include actions aimed at increasing health literacy, including the role of the citizen as owner of his or her own personal data, as well as advancing health and care professionals' proficiency in novel, data-oriented health services through the use of digital solutions.</li> </ul>		
<b>Impact</b>	<ul style="list-style-type: none"> <li>• Evidence of the benefits of delivering adequate information regarding personalised risk prediction, prevention and intervention.</li> <li>• Clear improvements of outcomes for individuals, care systems and wider society from prevention measures and interventions based on personalised early risk prediction.</li> <li>• Usefulness and effectiveness of integration and coordination of interventions in new health and care pathways based on person-centred early risk prediction, prevention and intervention models.</li> </ul>		
<b>Budget</b>	between EUR 4 and 6 million		

## II Programma Quadro Horizon 2020



Topic ID	Topic Title	Deadline	Work Programme
SC1-DTH-03-2020	Adaptive smart working and living environments supporting active and healthy ageing - RIA	07/04/2020	SC1
<b>Specific Challenge</b>	Digital solutions can support older individuals in being and staying actively involved in professional life for longer by designing fit for purpose working environments and by enabling flexible management of job-, leisure- and health-related activities considering their needs at the workplace, at home and on the move, with a particular focus on social inclusion, health needs and job retention.		
<b>Scope</b>	<ul style="list-style-type: none"> <li>Proposals should develop and validate digitally enabled adaptive services and solutions leading to smart work environments for older adults, supporting them to remain actively involved in professional life, helping them to sustain and renew their work and personal life related skills and support independent active and healthy lifestyles while taking into account reduced capabilities due to age-related health risks and conditions</li> </ul>		
<b>Impact</b>	<ul style="list-style-type: none"> <li>Independent living, and quality of life of older persons compared to current state of the art, enabling older persons to stay actively involved in work life for longer or return to work after severe disease;</li> <li>Enhanced health and safety working conditions and quality of life of older persons at work compared to the current situation, enabling older persons to be able to contribute at an appropriate level for a longer period of time;</li> <li>Evidence of user-centred design and innovation, new intuitive ways of human-computer interaction, and user acceptance.</li> </ul>		
<b>Budget</b>	between EUR 3 and 4 million		

# II Programma Quadro Horizon 2020



Topic ID	Topic Title	Deadline	Work Programme
SC1-DTH-04-2020	International cooperation in smart living environments for ageing people - RIA	07/04/2020	SC1
<b>Specific Challenge</b>	Demographic change and the ageing of the population create new heterogeneous challenges for society and, in particular, for ageing people. Digital solutions can play a key role when addressing these challenges and, especially those aimed at creating smart living environments for ageing people.		
<b>Scope</b>	<ul style="list-style-type: none"> <li>Proposals should develop and validate new solutions leading to smart living environments for ageing people, supporting independent active and healthy lifestyles.</li> <li>The proposed solutions should provide personalised advice, guidance and follow-up for key age and health related issues in daily life which impact the person's ability to remain active, healthy and independent..</li> <li><b>Cooperation with Japan</b> - ensure the use of generalized infrastructures such as cloud system and open sources.</li> <li><b>Collaboration with Canada</b> - use of ICT-based solutions to support smart living environments that address transitions in care challenges for ageing people.</li> </ul>		
<b>Impact</b>	<ul style="list-style-type: none"> <li>Independent living, and quality of life of older persons compared to current state of the art, enabling older persons to stay actively involved in work life for longer or return to work after severe disease;</li> <li>Enhanced health and safety working conditions and quality of life of older persons at work compared to the current situation, enabling older persons to be able to contribute at an appropriate level for a longer period of time;</li> </ul>		
<b>Budget</b>	<ul style="list-style-type: none"> <li>EUR 4 million will be reserved for proposals focusing on cooperation with Japan.</li> <li>EUR 4 million will be reserved for proposals focusing on cooperation with Canada</li> </ul>		

# II Programma Quadro Horizon 2020



Topic ID	Topic Title	Deadline	Work Programme
SC1-DTH-12-2020	Use of Real-World Data to advance research on the management of complex chronic conditions - RIA	07/04/2020	SC1
<b>Specific Challenge</b>	The number of people with chronic illness is growing and almost half of them have multiple chronic conditions. Patients with complex chronic conditions (CCCs) have chronic multi-morbidities or chronic disease complications that require the attention of multiple health care providers or facilities as well as home-based care. Real World Data (referring specifically to any type of data not collected in a randomised clinical trial) can fill the knowledge gap between controlled clinical trials results and clinical practice needs in real environments.		
<b>Scope</b>	<ul style="list-style-type: none"> <li>• Support clinical research integrating Real World Data from clinical practice or from patient's daily life and linking them with data collected with a research purpose if relevant.).</li> <li>• Focus on the use of real world data, either newly acquired or from existing sources (such as data from clinical professional societies/associations, cohorts, registers, biobanks or collected through genome research initiatives) to improve the clinical management of adults with complex chronic conditions.</li> <li>• Allow better treatment or monitoring of the person and thus changes in disease progression and/or therapy response.</li> </ul>		
<b>Impact</b>	<ul style="list-style-type: none"> <li>• Demonstrate the potential of the use multi-disciplinary multi-source Real World Data to advance clinical research on complex chronic conditions;</li> <li>• Demonstrate potential and use of RWD by health authorities to understand safety, quality and effectiveness of therapies;</li> <li>• Improve the clinical outcomes as well as quality of life of patients living with CCCs;</li> </ul>		
<b>Budget</b>	Between EUR 4 and 6 million		



# II Programma Quadro Horizon 2020



Topic ID	Topic Title	Deadline	Work Programme
SC1-BHC-06-2020	Digital diagnostics – developing tools for supporting clinical decisions by integrating various diagnostic data - RIA	07/04/2020	SC1
<b>Specific Challenge</b>	The availability of appropriate decision support tools for healthcare practitioners can promote uptake of personalised medicine in health care. On-going progress in the fields of bioinformatics and biostatistics, advanced analytical tools (e.g. machine learning) up to Artificial Intelligence (AI) solutions, should make possible the development of devices, platforms or novel approaches leading to highly personalised diagnosis, based on the integration of data available from various sources.		
<b>Scope</b>	<ul style="list-style-type: none"> <li>• Develop tools/platforms that use information from most relevant diagnostic means, resulting in accurate detailed, structured, systemic, and prioritised assessment of the health status in a patient.</li> <li>• The proposed solutions should integrate various data sources such as medical records, in vitro and in vivo diagnostics, medical imaging , -omics data, functional tests (lab on chip), etc.</li> </ul>		
<b>Impact</b>	<ul style="list-style-type: none"> <li>• Increase EU's capacity to innovate in the area of medical instruments</li> <li>• Improve the quality and sustainability of healthcare systems through quicker and more encompassing diagnosis of medical conditions</li> <li>• Contribute to the growth of the European diagnostics sector</li> </ul>		
<b>Budget</b>	40 million (between EUR 8 and 15 million)		

## II Programma Quadro Horizon 2020



Topic ID	Topic Title	Deadline	Work Programme
SC1-HCO-16-2020	ERA-NET: Sustained collaboration of national and regional programmes in research on brain-related diseases and disorders of the nervous system	07/04/2020	SC1
<b>Specific Challenge</b>	<p>Cooperation at transnational level in the area of brain-related diseases has successfully been established but can be further enhanced and sustained through synergies between projects coming out from individual ERA-Net calls as well as pertinent partners beyond the ERA-Network itself.</p> <p>Specific challenges include providing the necessary critical mass and resources to address commonly identified clinical needs. In particular, data sharing across funded projects should be enhanced.</p>		
<b>Scope</b>	<ul style="list-style-type: none"> <li>• Coordination in a sustained manner national and regional research programmes in the area of brain-related diseases, excluding neurodegenerative diseases, by implementing transnational calls with EU co-funding resulting in grants to third parties.</li> </ul>		
<b>Impact</b>	<ul style="list-style-type: none"> <li>• Joint investment of national and regional programmes in the area of brain-related neurological diseases;</li> <li>• Increased common activities of national research programmes and projects;</li> <li>• Contribution to the establishment of Brain research ERA</li> </ul>		
<b>Budget</b>	EUR 5 million		

## II Programma Quadro Horizon 2020



Topic ID	Topic Title	Deadline	Work Programme
SC1-HCO-17-2020	Coordinating and supporting research on the human microbiome in Europe and beyond - CSA	07/04/2020	SC1
<b>Specific Challenge</b>	Integration and application of metagenomics data from the human microbiome has shown large potential for personalised medicine approaches, although causal relationships and confounders are still largely unknown. Comparable information and details about microbiome composition and functionality in healthy citizen and patients are very valuable to complete the picture i.e. to better understand the healthy microbiome and to predict its development.		
<b>Scope</b>	<ul style="list-style-type: none"> <li>Platform for collaboration across various R&amp;I programmes on human microbiome, including also interaction with omics, impact of drugs, nutritional and environmental aspects</li> <li>Map progress and state-of-play for specific disease and health issues</li> <li>Propose strategic research agendas on human microbiome for future actions</li> </ul>		
<b>Impact</b>	<ul style="list-style-type: none"> <li>Harmonisation and increased comparability of metagenomics and human microbiome data in Europe and beyond</li> <li>Improved coherence and reduction of overlap between national, EU and other funding ensuring efficient use of available resources</li> <li>Reinforced collaborations and synergies in Europe and beyond, basis for the development of joint research programmes and alignment Internationally agreed methods, standards and procedures</li> </ul>		
<b>Budget</b>	2 million (between EUR 1.5 and 2 million)		

## II Programma Quadro Horizon 2020



Topic ID	Topic Title	Deadline	Work Programme
NMBP-21-2020	Biological scaffolds for tissue regeneration and repair (RIA)	12/12/2019 (first stage)	NMBP
<b>Specific Challenge</b>	The increasing availability of novel biomaterials with tissue regeneration properties offers the solution for many diseases, including those of a degenerative nature, particularly as integral parts of advanced therapy medicinal products or medical devices (...).		
<b>Scope</b>	<p>Proposals should cover one of the following domains:</p> <ul style="list-style-type: none"> <li>• Targeted musculoskeletal delivery of cells or biologically active agents and innovative biomaterials for articular cartilage/disc, ligament and tendon repair in weight-bearing joints;</li> <li>• Stimulation of healing in chronic and infected wounds and ulcerative processes (with or without biofilms as necessary);</li> <li>• Preventing microbial infection and concurrently promoting tissue regeneration in dental implants and/or dental root surgery;</li> <li>• Implementation of innovative manufacturing technologies (e.g. 3D printing) for affordable fabrication of patient-specific scaffolds planned in respect of the foregoing.</li> </ul>		
<b>Budget</b>	4-6 Million EUR [from TRL 3 to TRL 5]		

## II Programma Quadro Horizon 2020



Topic ID	Topic Title	Deadline	Work Programme
DT-NMBP-23-2020	Next generation organ-on-chip (RIA-Lump Sum)	12/12/2019 (first stage)	NMBP
<b>Specific Challenge</b>	Organ-on-Chip' (OoC) is a promising technology for achieving more effective in-vitro research in a broad range of life science sectors, including medicine and pharmacy, cosmetics, agriculture and food, and for chemical safety testing including regulatory testing. More effective drug development, efficacy and safety screening, would reduce the need for animal testing and clinical testing.		
<b>Scope</b>	<ul style="list-style-type: none"> <li>• Multidisciplinary research for the development of Organ-on-Chip technologies able to mimic human organs and organ-systems, based on integrated platforms involving technologies</li> <li>• Demonstrator applications involving modelling, diagnosis and therapy of human disease(s) of high and yet unmet medical need.</li> <li>• Industrial development/piloting towards improved robustness, reliability, scalability, parallelisation and standardisation of tools and methods, and providing interfaces to standard laboratory equipment;</li> <li>• Taking into account medical regulatory requirements.</li> </ul>		
<b>Budget</b>	4-6 Million EUR [from TRL 3 to TRL 5]		

## II Programma Quadro Horizon 2020



Topic ID	Topic Title	Deadline	Work Programme
DT-NMBP-06-2020	Open Innovation Test Beds for nano-pharmaceuticals production (IA)	12/12/2019 (first stage)	NMBP
<b>Specific Challenge</b>	A major challenge is to produce the novel nano-pharmaceuticals to GMP (Good Manufacturing Practice) quality, maximising bioavailability and stability and in sufficient quantity for late pre-clinical and clinical testing. To this end the production of the nanopharmaceuticals needs to be scaled-up from a small laboratory scale in the milligram range to a larger scale.		
<b>Scope</b>	<ul style="list-style-type: none"> <li>Open Innovation Test Beds (OITB) should upgrade or develop nano-pharmaceutical materials production facilities and make available to industry and interested parties, including SMEs, services for the design and development of production processes, characterisation and quality control of nanopharmaceuticals;</li> <li>The OITB should provide GMP certified batches of nano-pharmaceuticals suitable for late pre-clinical and clinical testing and in accordance with European regulatory requirements for medicines;</li> <li>The OITB need to provide guidance for late pre-clinical and clinical testing, which itself could be done outside the OITB, benefitting from already existing infrastructures, and/or within the same OITB;</li> </ul>		
<b>Budget</b>	7-15 Million EUR [from TRL 4 to TRL 7] = 70% (except for non-profit legal entities, where a funding rate of 100% applies)		

# II Programma Quadro Horizon 2020



Topic ID	Topic Title	Deadline	Work Programme
ICT-56-2020	Next Generation Internet of Things	16/01/2020	ICT
<b>Specific Challenge</b>	<p>Internet of Things (IoT) technologies and applications are bringing fundamental changes to all sectors of society and economy and constitute an essential element of the Next Generation Internet (NGI). The challenge is to leverage EU technological strength to develop the next generation of IoT devices and systems which leverage progress in enabling technologies such as 5G, cyber-security, distributed computing, artificial intelligence (AI), Augmented Reality and tactile internet. In addition it is important to build and sustain a competitive ecosystem of European technology and system providers in IoT as well as ensuring end-user trust, adequate security and privacy by design.</p>		
<b>Scope</b>	<p>The scope is to develop and demonstrate novel IoT concepts and solutions to underpin the NGI vision and make provision for predicting future events, trigger actions and moving decisions to the point of interest in order to better serve the end-use. proposals must address all the following challenges (sub-topics)...</p> <ul style="list-style-type: none"> <li>• Tactile/contextual Internet of Things based on human-centric sensing/actuating, augmented/virtual reality and new IoT service capabilities such as integration with parallel and opportunistic computing capabilities, neuromorphic and contextual computing.</li> </ul>		
<b>Budget</b>	EUR 5 and 8 million		

## II Programma Quadro Horizon 2020



Topic ID	Topic Title	Deadline	Work Programme
DT-ICT-12-2020	The smart hospital of the future (IA)	22/04/2020	ICT/ Health
<b>Specific Challenge</b>	New digital technologies will play a role in transforming health and care systems. In particular, artificial intelligence and robotics, have the potential to transform health and care facilities across their range of functions from the clinical aspects (screening and prevention, diagnosis, treatment, surgical support) to organisational and logistical aspects (such as the management and distribution of medicines and wider supplies across the facility). Given that health facilities such as hospitals consume the major proportion of resources available to health and care budgets, efficiency gains in these facilities may support sustainability of the system as a whole. (...)		
<b>Scope</b>	<ul style="list-style-type: none"> <li>Devise in-facility pilot demonstrators that deliver innovative AI-based solutions in a health and care setting such as a hospital, primary care facility or care home. Pilots should enable or support clinical, diagnosis and treatment, etc. carried out with clinical outcomes comparable to human delivered procedures and with comparable results. (...)</li> </ul>		
<b>Budget</b>	7-10 Million EUR = 70% (except for non-profit legal entities, where a funding rate of 100% applies)		



## II Programma Quadro Horizon 2020



Topic ID	Topic Title	Deadline	Work Programme
FETOPEN-01-2018-2019-2020	FET-Open Challenging Current Thinking	13/05/2020	FET
<b>Specific Challenge</b>	to lay the foundations for <b>radically new future technologies</b> 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.		
<b>Scope</b>	Proposals are sought for cutting-edge high-risk / high-impact interdisciplinary research with all of the following essential characteristics ("FET gatekeepers"):		
	<ul style="list-style-type: none"> <li>• <b>Radical vision:</b></li> <li>• <b>Breakthrough technological target:</b></li> <li>• <b>Ambitious interdisciplinary research</b> for achieving the technological breakthrough and that opens up new areas of investigation.</li> </ul>		
<b>Impact</b>	<ul style="list-style-type: none"> <li>• Scientific and technological contributions to the foundation of a new future technology</li> <li>• Potential for future social or economic impact or market creation.</li> <li>• 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.</li> </ul>		
<b>Budget</b>	EUR 4 M€		

## II Programma Quadro Horizon 2020



Topic ID	Topic Title	Deadline	Work Programme
FETPROACT-09-2020	Neuromorphic computing technologies	22/04/2020	FET
<b>Specific Challenge</b>	<p>The potential of neuromorphic computing has been only partially explored so far. Compared to biological neural networks, current neuron/dendrite models are simple, the networks small and learning models appear to be rather basic. The implementations are often VLSI-based CMOS with little resemblance to the substrate of their biological counterparts, and too power-hungry. The challenge is to exploit a wider range of biological principles from the hardware level up (e.g., neuro-mimicking materials and principles – electronic, photonic, ionic,... – , 3D networks, higher degrees of connectivity.) and from the cognitive level down, by developing the related algorithms and programming framework, in order 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.</p>		
<b>Scope</b>	<p>Proposals will target new computational substrates and engines, based on new materials and engineering principles for efficient and low-power neuromorphic computing; together with new theories, architectures and algorithms for neuromorphic computation (classification, control,...), learning (including unsupervised, incremental, single-shot and/or event-based) and adaptation/plasticity for and in such new neuromorphic hardware. These should be brought together in systems or artefacts that demonstrate clear advantages for replacing or complementing state-of-the-art conventional approaches in challenging end-to-end scenarios of use (e.g., on-line edge computing, personalisation, embedded, robotic/agent control,...) in various fields of applications</p>		
<b>Budget</b>	EUR 4 and 5 million		

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Topic ID	Topic Title	Deadline	Work Programme
IMI2-2020..	Handling of protein drug products and stability concerns -RIA	23/06/2020	IMI2
<b>Specific Challenge</b>	<p>In the past two decades, protein pharmaceuticals have become the fastest growing class of therapeutics owing to their beneficial impacts on the treatment of severe and life-threatening conditions and diseases. Development and manufacturing of protein pharmaceuticals is, however, challenging and requires overcoming various manufacturing hurdles such as issues with the purity of the protein product. There has been increasing expression of concern in the past decade regarding the significance of the post-production handling of protein pharmaceuticals. At the same time, studies revealed that the consequences of presence of impurities in DP can be severe. Potentially high likelihood and/or severity in consequences in combination with the low level of control over the processes by the industry make these concerns a significant risk that needs to be addressed in a public-private partnership including all relevant stakeholders.</p>		
<b>Scope</b>	<p>The first objective of this topic is to improve the understanding of real-world stressful drug product handling steps and their effects on protein product quality. The second objective of this topic is to use this understanding for development of guidelines and operating processes to improve the DP robustness and pharma processes, and to develop more efficient training</p>		
<b>Budget</b>			

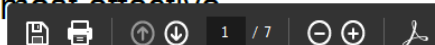
## Neurodegeneration and other neuroscience priorities

### Rare neurodegenerative and neurocognitive diseases clinical platform development

The main scope of this topic will be to develop a clinical platform for rare neurodegenerative and neurocognitive diseases (RND), ready to test new therapies in a streamlined and efficient way, delivering more effective, targeted interventions that can slow or stop RND. Additionally, the research on a rare neurological disorder will be used to get insights into more complex diseases with similar genetic linkage.

### Complement in neurodegenerative diseases

The main interest is around building knowledge on the druggable targets in the complement system, as neuroinflammation is widely implicated in a wide range of chronic neurodegenerative conditions, but much about the specific role of complement remains to be defined. The project will build up on the significant advances in genetic and biomarker domains made for Alzheimer's disease (AD), focusing on delivering a profile of the status of complement activity in Parkinson's disease (PD), Huntington disease (HD), amyotrophic lateral sclerosis (ALS) (or possibly subtypes of these), with corresponding suggestions of what novel therapeutic approaches/ targets could be most effective.





**Proposals have  
2 parts**

**Both parts need  
to be assessed**

**Page limitation:  
50 or 70 pages  
for Part B**

**(excessive pages  
made invisible)**

## ■ Part A

- General Information – Abstract
- Participants and contacts
- Budget
- Ethics
- Call specific question – Open Research Data Pilot

## ■ Part B

- Section 1: Excellence (objectives; relation to WP; concept & approach; ambition)
- Section 2: Impact (expected impacts; measures to maximize impact which include dissemination & exploitation of results and communication activities)
- Section 3: Implementation (work plan; management structure & procedures; consortium; resources)
- Section 4: Members of the consortium
- Section 5: Ethics and security

# II Programma Quadro Horizon 2020

## Award Criteria: RIA e IA



### Excellence

- Clarity and pertinence of the objectives;
- Soundness of the concept and credibility of the proposed methodology;
- Extent that the proposed work is beyond the state of the art, and demonstrates innovation potential (e.g. ground-breaking objectives, novel concepts and approaches, new products, services or business and organisational models)
- Appropriate consideration of interdisciplinary approaches and, where relevant, use of stakeholder knowledge.

### Impact

- Extent to which the outputs of the project would contribute to each of the expected impacts mentioned in the work programme under the relevant topic;
- Any substantial impacts not mentioned in the work programme, that would enhance innovation capacity, create new market opportunities, strengthen competitiveness and growth of companies, address issues related to climate change or the environment, or bring other important benefits for society;
- Quality of the proposed measures to:
  - Exploit and disseminate the project results (including management of IPR), and to manage research data where relevant.
  - Communicate the project activities to different target audiences.

### Implementation

- Quality and effectiveness of the work plan, including extent to which the resources assigned to work packages are in line with their objectives and deliverables;
- Appropriateness of the management structures and procedures, including risk and innovation management;
- Complementarity of the participants and extent to which the consortium as whole brings together the necessary expertise;
- Appropriateness of the allocation of tasks, ensuring that all participants have a valid role and adequate resources in the project to fulfil that role.

# II Programma Quadro Horizon 2020

## Cross-cutting issues



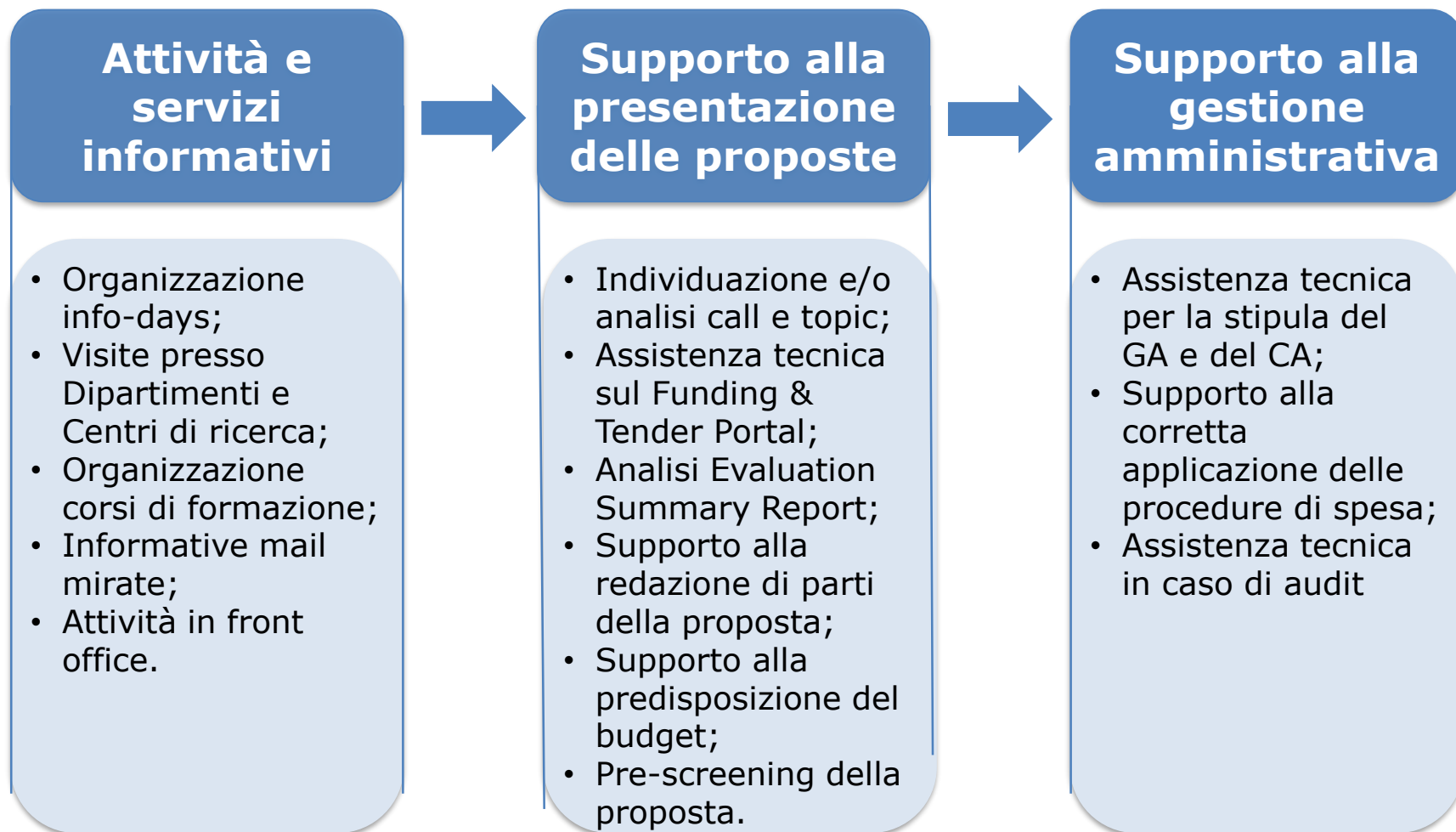
- International cooperation
- Socio-economic Sciences and Humanities (SSH)
- Open access & Data management
- Climate action & Sustainable development
- Ethics
- Gender
- SMEs and Innovation
- Support to ERA-priorities
- Links to regional policy
- Intellectual property
- Innovation procurement
- Responsible Research and Innovation (RRI)

# Il Programma Quadro Horizon 2020

Grant Office – Attività e Servizi di supporto



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UNIVERSITÀ DI ROMA





## Hints and Tips

- Leggere attentamente il **WP della call e del topic** di riferimento e, se disponibile, le linee guida per Applicants;
- Iniziare a predisporre la proposta con **largo anticipo** rispetto alla scadenza della call;
- Proporre un **progetto ambizioso**, evitando di essere irrealistici;
- Rendere la proposta **“facile da leggere”**
  - Identificare subito obiettivo principale e ipotesi della proposta;
  - Utilizzare tabelle e grafici (chiari e leggibili);
  - Usare format appropriati (es. grassetto) per enfatizzare parti e contenuti particolarmente importanti;
  - adottare uno stile narrativo semplice ed “accattivante”;
- Rispettare le **regole di formattazione e i limiti di pagina**;

# Il Programma Quadro Horizon 2020

## Hints and Tips



- Creare un partenariato che racchiuda **tutte le competenze e le eccellenze** necessarie alla realizzazione del progetto;
- Focalizzare la descrizione dello stato dell'arte su **specifici fabbisogni d'intervento e sfide** alle quali intende fare fronte la ricerca proposta;
- Verificare quali **progetti analoghi** sono stati finanziati dalla UE <https://cordis.europa.eu/projects/it>;
- Fornire **evidenze inconfutabili** dell'eccellenza della ricerca e degli impatti attesi;
- Fornire un **piano di lavoro chiaro, conciso e sostenibile** e descrivere coerentemente le attività di implementazione del progetto e dei Work Packages - WP;
- Individuare i **possibili rischi di attuazione** del progetto e le correlate strategie di mitigazione.



***GRAZIE PER L'ATTENZIONE!***

## **Emanuele Gennuso**

Area Supporto alla Ricerca e Trasferimento Tecnologico (ASURTT)  
Ufficio Promozione e Servizi di Supporto per le Iniziative di  
Ricerca - Settore Grant Office

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