UNIVERSITE LIBRE DE BRUXELLES
HORIZON 2020

Not yet launched

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HORIZON 2020

2007-----------------------2013/2014-------------------------------------2020
Horizon 2020: 3 pillars

- Excellent Science
- Competitive Industries
- Tackling Societal Challenges
Behind each Pillar

EXCELLENT SCIENCE

ERC  FET  Marie Skłodowska-Curie  Infrastructure

INDUSTRIAL LEADERSHIP

ICT
Nanotech / materials
Biotech
Manufacturing / processing
Space
Access to risk finance
Innovation in SMEs

SOCIETAL CHALLENGES

1. Health
2. Food, agriculture & forestry
3. Energy
4. Transport
5. Environment
6. Inclusive societies
7. Secure societies
H2020: Pillar 1- Excellence

- ERC European Research Council: high risk, high gain Research projects (1 Principal Investigator)

- FET Future Emerging Technologies: High risk, breakthrough collaborative projects

- Marie Skłodowska-Curie: mobility, training & career development of researchers

- Research Infrastructures: World class capacities development (including e-infrastructures).
FET: 3 funding schemes

FET-Open
Early ideas
Uncorrelated Research projects
Exploring novel ideas

FET-Proactive
Exploration & incubation
Topical clusters of research projects
Developing topics & communities

FET-Flagships
Large-Scale Partnering Initiatives
Common Research Agendas
Addressing Grand Challenges

Nano-Bio-Chem interface
Adaptive Bottom-up construction
Human Brain Proj.
Graphene
Exploring new ideas

Popular FET Scheme

Attracts new disciplines & actors: including young ones & SMEs

A source of new directions & early signals

Largely academic with some high-tech industry & « niche » SMEs

Highly competitive: 4-5 % success rate (budgetary reasons)
FET Open is Open

- Open to all technologies: no thematic restriction
- Bottom-up but targeted
- Collaborative research
- Call open twice a year

Over 1 B EUR on the total 2.5 B EUR FET budget
• ERC European Research Council: high risk, high gain Research projects (1 Principal Investigator)

• FET Future Emerging Technologies: High risk, breakthrough collaborative projects

• Marie Skłodowska-Curie: mobility, training & career development of researchers

• Research Infrastructures: World class capacities development (including e-infrastructures).
Marie Skłodowska-Curie

ITN
Innovative networks supporting early-stage training

IEF
Individual fellowship supporting experienced researchers undertaking mobility

IOF
International and inter-sector cooperation through research and innovation staff exchange

IIF
Co-funding of regional, national and international programmes funding doctoral and postdoctoral researchers

CIG

RISE

COFUND

ITN

Early-Stage Researchers

IF
Experienced Researchers

RISE
Exchange of Staff

COFUND
Co-funding

IAPP

IRSES

ULB
MSC-ITN

Doctoral / Early-stage researchers training

Initial / Innovative Training Network

European Industrial / Joint Doctorate
EID / EJD

ETN
European Training Network
multi beneficiaries
Success rate ≈ 10%

Innovative Doctoral Programme
IDP
MSC- Innovative Training Network

- Dedicated to early-stage researchers
- Involving wide partnership of institutions from academic and non-academic sectors
- Addressing triple 'i' dimension of mobility
- Combining scientific excellence with innovation-oriented approach
- Enhancing employability of researchers
MSC – Individual Fellowships

- Opportunities for international and inter-sector mobility of Experienced Researchers to facilitate career moves
- Possibility of inter-sector secondments
- Enhance competences and creative potential of best researchers, European and non-European willing to work in the EU
- Encompass intra-European, incoming, outgoing mobility plus re-integration and career restart
MSC- Research and Innovation Staff Exchange

- New type of exchange of staff action to stimulate transfer of knowledge

- Flexible inter-sector (within Europe) and international (with 3rd countries) exchanges of highly skilled research and innovation staff

- No recruitment foreseen

- Based on a common research project
Pillar 2- Competitive Industries

- Build leadership in enabling and industrial technologies LEIT
- Facilitate access to risk finance
- Provide Union wide support for innovation in SMEs
leadership in enabling and industrial technologies

- Micro- and nanoelectronics; photonics
- Nanotechnologies
- Advanced materials
- Biotechnology
- Advanced manufacturing and processing
- Development of these technologies requires a multi-disciplinary, knowledge and capital-intensive approach.
How to read a work program?

« DRAFTS » : Information subject to change

WORK PROGRAM 2014 – 2015

Leadership in enabling and industrial technologies

Call – Nanotechnologies, Advanced Materials and KET (Key Enabling Technologies) support actions

NMK 1 , NMK 2 … Several topics
How to read a topic?

NMK 10 - 2014: Biomaterials for the treatment of diabetes mellitus

- **Specific challenge**

- **Scope**

- **Expected impact**

- **Type of action**: Research & Innovation Action 100% funding
Nanotechnologies, Advanced Materials and KET support actions

• NMK 12 - 2015: Biomaterials for treatment and prevention of Alzheimer’s disease

• NMK 19 - 2015: Materials for severe operating conditions, including added-value functionalities

• NMK 20 - 2014: Widening material models
Pillar 3-Tackling Societal Challenges

- **Health**, demographic change and well-being

- **Food** security, sustainable **agriculture** and forestry, **marine** and maritime and inland **water**

- Secure, clean and efficient **energy**

- Smart, green and integrated **transport**
Pillar 3 - Tackling Societal Challenges

- Climate action, **environment**, resource efficiency and **raw materials**

- Europe in a changing world - **inclusive, innovative and reflective societies**

- **Secure societies** - protecting freedom and security of Europe and its citizens.
Health, demographic change and well-being

Call-Personalising Health & Care
• PHC 34 – 2015: New approaches to improve predictive human safety testing
• PHC 14 – 2015: New therapies for rare diseases

Call-Health Coordination activities
• HCO12 – 2015: ERA-NET: Generating programmes and activities on antibiotic resistance by the Joint Programming on Antimicrobial Resistance
• HCO13 – 2015: ERA-NET: Cardiovascular disease or HIV/AIDS
Call for Blue Growth: Unlocking the potential of the Oceans

- BG 3 - 2014: Novel marine derived biomolecules and industrial biomaterials
- BG 4 - 2014: Enhancing the industrial exploitation potential of marine-derived enzymes

Call for Sustainable Food Security

- SFS 12 - 2014: Assessing the health risks of combined human exposure to multiple food-related toxic substances
Climate action, environment, resource efficiency & raw materials

Call- Growing a Low Carbon, Resource Efficient Economy with a Sustainable Supply of Raw Materials

• SC5-11-2014/2015: New solutions for sustainable production of raw materials

Call – Waste: A Resource to Recycle, Reuse and Recover Raw Materials

• WASTE-3-2014: Recycling of raw materials from products and buildings
Secure societies

Protecting freedom & security of Europe & its citizens

• Call-Fight against crime and Terrorism

• FCT 10 – 2014: Urban security topic 2: Countering the terrorist use of an explosive threat
What does come next?

• Read the Work Programmes: drafts or final ones (11/12)

• Contact your EU liaison offices of your institutions

• Contact NCP- National Contact Points
Thank you for your attention!

Once back home, in case of any question...

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