European Commission

#InvestEUresearch

Horizon 2020
Work Programme
for Research & Innovation
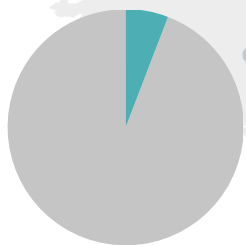2018-2020

Horizon H2020 – Open to the world
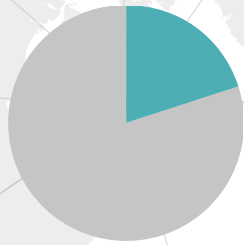
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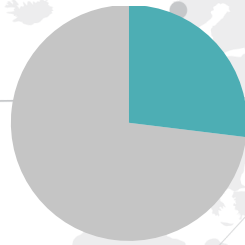Function:

Research and Innovation

Did you know? The European Union:
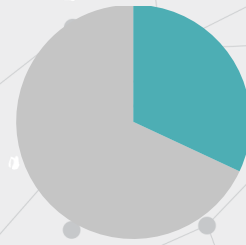# 500 million people – 28 countries - one single market
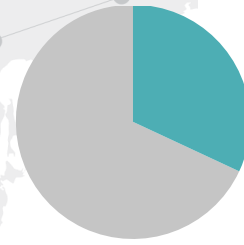
6% of the World's population

20% of world expenditure on research

27% of world scientific publications

32% of high-impact publications

32% of patent applications

Some of the best universities in the world

Some of the most innovative companies in the world

Building a society and economy on knowledge and innovation

European Commission

What is Horizon 2020?

- The EU Framework Programme for **Research & Innovation**
- **Biggest multinational** programme of its kind with a budget of almost € 80 billion
- **Horizon 2020 is open to the world!** Your access to European research and innovation
- Horizon 2020 welcomes **researchers & institutions**, public or private, **from all over the world**
- **Broad scope:** R&I grants, loans, top-down focus on SCs, bottom-up frontier research, cross-border, cross-sectoral, interdisciplinary collaboration, mobility

Key figures

- 126000 eligible proposals/14000 contracts signed/ <u>52% are newcomers (from 130 countries)</u>
- Main beneficiaries: 64% Research organisations/27.7% private sector (23% SMEs)/7.3% Public authorities
- 92% of the budget to EU-28
- 75% of the budget to collaborative R&I projects/25% to single beneficiaries to support excellence science

European Union Member States and Countries Associated to Horizon 2020

EU Member States (28)

Associated Countries (16)
Albania
Armenia
Bosnia & Herzegovina
Faroe Islands
Georgia
Iceland
Israel
the Former Yugoslav Republic of Macedonia
Republic of Moldova
Montenegro
Norway
Serbia
Tunisia
Turkey
Ukraine
Switzerland

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Why should you participate in Horizon 2020?

1 Ambitious research and innovation projects

2 Access to world class research infrastructures

3 Tackle global challenges together with excellent European and International scientists

4 Mobility to Europe

THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

HORIZON 2020

5 Access to new networks and alliances

6 New business opportunities and visibility of your research

7 Research funding

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More good reasons for participation!

- H2020 responds to emerging needs such as Ebola, Zika, migration

- 17 Nobel prizes winners supported before or after award

- Contribution to key discoveries: exoplanets, Higgs boson, gravitational waves

- Access to EU research infrastructures: 365 available and accessed by 35000 researchers

- 340000 researchers supported-27000 MSCA

- Produced knowledge leading to scientific breakthrough

- 4000 peer reviewed publications (cited twice world average) 2/3 Open Access

- Creation of scientific collaboration networks:1 in 5 publications academia/private sector

- Publications with Third Country author cited more than 3 times world average

- Interdisciplinary publications cited more than 78% world average

European Commission

Some key figures for the private sector

- Networks between business and between business and research

- 5700 companies accessed risk finance to carry out innovative projects

- 88 SMEs supported with the SME instrument

- H2020 generated:
  - ✓ 153 patent applications
  - ✓ 24 trademarks awarded

- H2020 supported development and deployment of innovative solutions:
  - ✓ 229 prototypes-801 testing activities-81 clinical trials

- H2020 generated innovation outputs:
  - ✓ 563 firms (56% SMEs) introduced innovations new to the market
  - ✓ 471 new to the company
  - ✓ 70% SMEs aim at new to the market innovations

Every € invested in H2020 brings an estimated GDP increase of 6-8.5 €

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Why is international research cooperation important to the EU?

1 Access to markets

4 Higher global profile

2 Access to knowledge

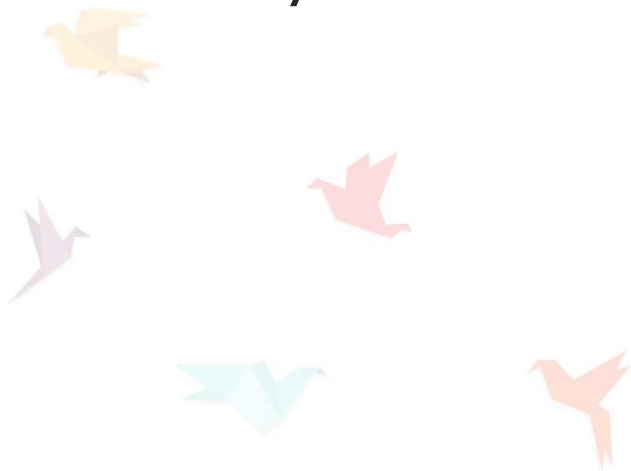3 Attracting talent and investment

5 Better research and exploitation

European Commission

Key challenges

❖Underfunding: oversubscription ➡ Waste of applicant resources

❖Barriers to demand-driven innovation

❖Better outreach to civil society to involve them in agenda setting and co-creation

❖Intensify international cooperation

European Commission

3. Funding of international partners

Eligibility for Funding – General Rules

Automatically funded:
- Member States
- Associated Countries
- **Countries listed in Annex 1 of the Work Programme**

Lebanon

Other Partner Countries are funded when:
- Agreement exists between 2 funding bodies
- Provision made in the call text
- Commission deems participation essential

4. Lebanon in Horizon 2020 - State of Play and Future Opportunities

Lebanon in Horizon 2020 – Statistics (Record date: 30/09/2017)

Projects: 12

Participations: 13

Coordinators: 0

EC contribution (in total): 1,041,057 Euro

EC contribution (average/partner): 80,081 Euro

European Commission

Lebanon in Horizon 2020 – Number of projects in most relevant programme areas

Excellence Science	**3**
Marie Skłodowska-Curie actions	3
Industrial Leadership	**1**
ICT	1
Societal Challenges	**8**
1. Food Security	2
2. Climate Action	1
3. Europe in a changing world	5

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Lebanon in Horizon 2020 – Most active organisations

Rank	Organisation, Location	Type
1	Conseil National de la Recherche Scientifique	Research Organisation
2	Berytech Foundation American University of Beirut	Others Higher or Secondary Education
3	University Saint-Joseph Beirut	Higher or Secondary Education
4	Lebanon Support, Furn el Chebbak	Others
5	International Centre for Agricultural Research in Dry Areas	Research Organisation
6	American University of Beirut	Higher or Secondary Education

4. Opportunities for researchers and entities from Lebanon in the upcoming calls under Horizon 2020

Horizon 2020 covers three priority areas:

Researcher driven:
The foundation of tomorrow's technologies, jobs and wellbeing

1- Excellent science

Industry driven:
Strategic investments in key technologies

2- Industrial leadership

3- Societal challenges

Society driven:
Tackling the great challenges of our time of citizens and society

European Commission

How can you participate in Horizon 2020?

There are two general ways to participate:

- **Participation of individual researchers**

  Researchers of all nationalities are welcome to participate

- **Collaborative projects**

  Together with at least 3 <u>legal entities</u> from 3 different countries of the EU or from Countries Associated to Horizon 2020

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Where in Horizon 2020 can you find options for individual research?

- **The European Research Council (ERC)**

  =excellent research

- **Marie Skłodowska-Curie Actions (MSCA)**

 = mobility of researchers and technical staff

Excellent Science

These opportunities are for researchers who want to work in Europe.

How to participate in a collaborative project?

- As a legal entity from Lebanon you may take part in collaborative projects of Horizon 2020

- Remember! All collaborative-type of proposals must meet certain minimum conditions:

  3 participants from different EU member states or associated countries

European Commission
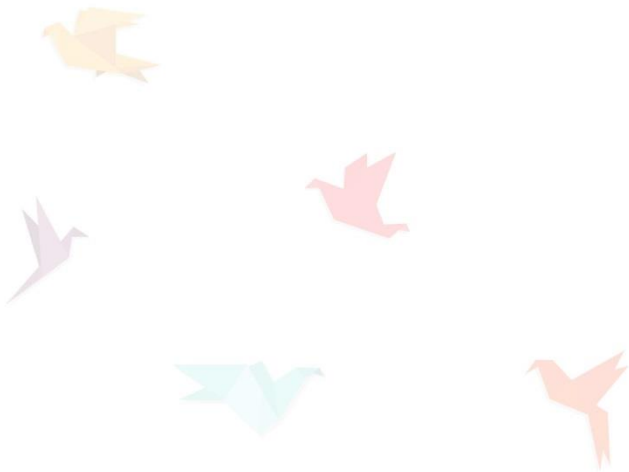
International participation is targeted by specific programme elements

- Specific topics in calls for proposals may:
    - indicate that **participation of international partners is encouraged**
    - indicate that **participation of partners from a certain country or region is encouraged or even mandatory**

- Coordinated calls exist, used for specific actions

    More information on funding opportunities in selected programme parts will be provided later in the programme

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6. Key messages – final Q&A

Key message for Lebanon researchers and legal entities

- Horizon 2020 is the largest research and innovation programme in the world.

- Lebanon nationals or institutions are eligible to take part in Horizon 2020, as individual researchers or in collaborative projects.

- Participants from Country automatically receive funding from the EU

- Participation in Horizon 2020 projects offers exciting opportunities to extend your research field, your network and your career options.

- International cooperation is encouraged

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Thank you!

#InvestEUresearch
www.ec.europa.eu/research
Participant Portal
http://ec.europa.eu/research/participants/portal/

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1. Brief overview of Horizon 2020

Horizon 2020 – relevant areas for international participation

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 bio-economy

- Secure, clean and efficient energy

- Smart, green and integrated transport

- Climate action, resource efficiency and raw materials

- Inclusive, innovative and reflective societies

- Security society

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How is funding allocated?

❖ Multiannual **work programmes** prepared by the EC

Structure

➢ Introduction

➢ thematic sections:overall objectives, the respective calls for proposals, topics within each call

➢ general annexes describing general rules such as standard admissibility conditions and eligibility criteria, types of action, selection and award criteria, etc.

Each thematic section is self-contained, and describes the overall objectives, the respective calls for proposals, and the topics within each call.

Work Programmes 2018-2020

Main WPs:

- Future and Emerging Technologies (FETs) 2018-20
- Marie Sklodowska-Curie actions (MSCA) 2018-20
- Research infrastructures (including e-Infrastructures) 2018-20
- Leadership in enabling and industrial technologies (LEITs) 2018-20 (3 parts: ICT-nanotechnologies-Space)
- Access to risk finance 2018-20
- Innovation in SMEs 2018-20
- 7 Societal Challenges (health, food, energy, transport, climate, inclusive societies, secure societies)
- Spreading excellence and widening participation 2018-20
- Science with and for society 2018-20
- European Innovation Council (EIC) 2018-20
- ERC Work Programme 2018
- Euratom Work Programme 2018-20

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2. The European Research Council

What does the European Research Council (ERC) offer?

- For **excellent researchers** wishing to conduct their groundbreaking research **in Europe**

- No thematic priorities → bottom-up approach

- Investigator-driven

- **ERC Principles:**
  - 1 Principal Investigator and team
  - 1 Host institution in the EU/country associated to Horizon 2020
  - 1 Selection criterion: EXCELLENCE
  - At least 50% of the research has to be done in Europe
  - Project duration: Up to 5 years

More than 500 grants to non-EU/AC Principal Investigators

Four ERC main funding lines

Starting Grant:

Early career top researchers, 2-7 years after PhD | €1.5 mio.

Consolidator Grant:

Top researchers, 7-12 years after PhD | €2 mio.

Advanced Grant:

Senior researchers with significant research achievements

€2.5 mio.

Synergy Grant:

2-4 excellent researchers and their teams, researchers with complementary skills, knowledge and resources, project duration max. 6 years | €10 mio.

Researchers can join running ERC projects as a team member

- Individual new researchers can apply to join existing ERC teams in Europe

- ERC principal investigators expressed interest in hosting researchers also from your country

- More information about Implementing Agreements can be found: *https://erc.europa.eu/funding/additional-opportunities*

Useful links and ERC promotional video

Helpful links

ERC:

https://erc.europa.eu/

ERC videos:

https://vimeo.com/28818767

https://vimeo.com/31716309

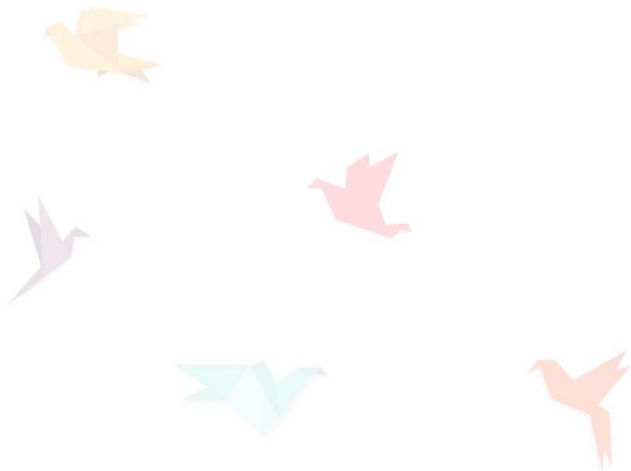Excellent Science

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Indicative summary of main ERC calls from the 2018 budget

	Starting Grant	Consolidator Grant	Advanced Grant	Synergy Grant	Proof of Concept Grant
Call identifier	ERC-2018-StG	ERC-2018-CoG	ERC-2018-AdG	ERC-2018-SyG	ERC-2018-PoC
Call Opens	03/08/2017	24/10/2017	17/05/2018	03/08/2017	06/09/2017
Deadline or cut-off dates for PoC	17/10/2017	15/02/2018	30/08/2018	14/11/2017	16/01/2018 18/04/2018 11/09/2018
Budget million EUR (estimated number of grants)	581 (391)	550 (287)	450 (194)	250 (30)	20 (130)
Planned dates to inform applicants (after each step or cut-off date)	14/05/2018 14/08/2018	06/07/2018 30/11/2018	29/01/2019 08/04/2019	23/04/2018 29/08/2018 19/10/2018	30/03/2018 21/07/2018 10/12/2018
Indicative date for signature of grant agreements (by cut-off date for PoC)	14/12/2018	30/03/2019	08/08/2019	19/02/2019	30/07/2018 21/10/2018 10/04/2019

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3. Future Emerging Technologies (FET)

Future Emerging Technologies (FET)

- Collaborative research for **radically new lines of technology (Open)**

- Supports frontier research: alternative ideas, concepts or paradigms of a risky or non-conventional nature (similar to ERC)

Open, Proactive, Flagships

Bottom-up approach　　**Top down approach**

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FET Openings and deadlines under WP 2018-2020

Funding scheme	Publication	Budget	Deadline
FETOPEN1	07. Nov.17	647,5 Mio. €	*
FETOPEN2	07. Nov.17	2 Mio. €	11. April 18
FETOPEN3	07. Nov.17	8,2 Mio. €	**
FETPROACT1	31. Oct. 17	88 Mio. €	22. March 18
FETPROACT2	31. Oct. 17	0,5 Mio. €	22. March 18
FETPROACT3	05. June 18	6 Mio. €	18. Dec. 18
FETHPC1	01. Feb. 18	4 Mio. €	15. May 18
FETHPC2	07. May 19	64 Mio. €	24. Sep. 19
FETFLAG1	31. Oct. 17	6 Mio. €	***
FETFLAG2	31. Oct. 17	10 Mio. €	17. April 18
FETFLAG3	31. Oct. 17	130 Mio. €	20 Jan. 18

* 16. May 18, 24. Jan. 19, 18. Sep. 19 and 13. May 20
** 16. Okt. 18, 08. Okt. 19 and 14. Okt. 20
*** 20. Feb. 18 first stage and 18. Sept. 18 second stage

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Useful links and FET Open promotional video

Helpful links:

FET Open:

http://ec.europa.eu/programmes/horizon2020/en/h2020-section/fet-open

FET Proactive:

http://ec.europa.eu/programmes/horizon2020/en/h2020-section/fet-proactive

FET Flagships:

http://ec.europa.eu/programmes/horizon2020/en/h2020-section/fet-flagships

FET Open video:

https://www.youtube.com/watch?v=oTEzxpz69TU

4. MSCA

What do Marie Skłodowska-Curie actions (MSCA) offer?

– Opportunities for training and career development

– **Mobility of researchers is mandatory**

MSCA principles:

– Open to all career stages and nationalities
– Bottom-up approach
– International, inter-sectoral and interdisciplinary career and knowledge-exchange

MSCA objectives

• Attract and retain research talent in Europe
• Develop state-of-the-art, innovative training schemes, consistent with the requirements of R&I
• Promote sustainable career development in R&I
• Focus on delivering new knowledge and skills
• Back up strong partnership with MS via co-funding mechanism

Excellent Science

Three MSCA main funding lines

Individual Fellowships (IF):

- Supporting experienced international researchers to do research in Europe for 12-24 months

- Host institutions: from academia or industry

Innovative Training Networks (ITN):

- Networks of organisations offering research and training to early-stage researchers

Research and Innovation Staff Exchange (RISE):

- International and inter-sectoral cooperation

IF: Individual Fellowships (European Fellowship)

- As an **experienced researcher** of any nationality you can apply with your individual research project to be conducted at a European organization

- An individual fellowship provides tailored training for your career in research to enhance the creative and innovative potential

- You will receive a work contract including social security for 12-24 months

- Resume a career or Return to Europe - Career Restart Panel and Reintegration Panel

- Duration: 2 years (Global Fellowships: 3 years)

ITN: Innovative Training Networks

- Raise excellence and structure **research and doctoral training**

- **Trigger cooperation** and exchange of best practice among participants

- Enhance **researchers' employability** and provide them with new career perspectives

- Only for **early stage researchers**

- Fellowships of **3-36 months**

- Project duration up to **4 years**

- Maximum **540 researcher-months**

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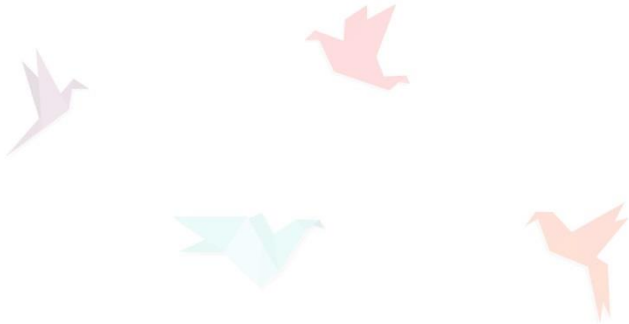
ITN: Innovative Training Networks

- As an early-stage researcher you can participate in existing joint research training or doctoral programmes of international networks in Europe

ETN

European Training Networks

Participants implement a joint research programme
At least 3 beneficiaries from 3 different EU MS or AC. Above this minimum any country can participate

EID

European Industrial Doctorates

Doctoral programme with the non-academic sector
at least 2 beneficiaries established in 2 different MS or AC. At least one beneficiary must come from the non-academic sector, at least 50% in the non-academic sector. The joint supervision is mandatory

EJD

European Joint Doctorates

Doctoral programme to deliver joint degrees
at least 3 beneficiaries from different EU MS or AC entitled to award doctoral degrees, creation of joint doctoral programmes, leading to the delivery of joint, double or multiple doctoral degrees

RISE: Research and Innovation Staff Exchange

Objective

- Strengthen the interaction between academic and non-academic organisations, and between Europe and third countries

- Research projects implemented through research and innovation short-term staff exchanges

- International, cross-border and inter-sector transfer of knowledge and sharing of ideas and of R&I culture

- Highly skilled research and innovation staff move for 1-12 months

- Staff (research or technical) of **any nationality** can participate.

Set ups

MS/AC 1 + **MS/AC 2** + **TC**

International

MS/AC 1 + **MS/AC 2** + **MS/AC 3**

Academic **Non-Academic**

European

Financial overview

RISE

Research, networking, training costs	1800 €	Top-up allowance	2000 €
Management and indirect costs	700 €		

ITN

Research, networking, training costs	1800 €	Living allowance*	3110 €
Management and indirect costs	1200 €	Mobility allowance	600 €
		Family allowance	500 €

IF

Research, networking, training costs	800 €	Living allowance*	4650 €
Management and indirect costs	500 €	Mobility allowance	600 €
		Family allowance	500 €

COFUND

Management costs	325 €	Living allowance Early-stage researchers	1855 €
		Living allowance Experienced researchers	2625 €

European Commission

MSCA Openings and deadlines under WP 2018-2020

Funding scheme	Publication	Budget	Deadline
ITN 18	12. Oct.17	442 Mio. €	17. Jan. 18
ITN 19	13. Sept. 17	470 Mio. €	15. Jan. 19
RISE 18	22. Nov. 17	80 Mio. €	21. March 18
RISE 19	04. Dec. 18	80 Mio. €	2. April 19
IF 18	12. April 18	273 Mio. €	12. Sept. 18
IF 19	11. April 19	295,62 Mio. €	11. Sept. 19

5. Infrastructures

Research Infrastructures (RI)

Goal:

- Integrate and open global research infrastructures

- Build consortia of several key research infrastructures in a field and unite stakeholders from different countries

Third countries also eligible for funding:

- Australia, Brazil, Canada, China, India, Japan, Russia, Mexico and USA
- They provide, under the grant, access to their research infrastructures

6. Industrial Leadership

Leadership in enabling and industrial technologies (LEIT)

Industrial Leadership

- ICT
- Nanotechnology
- Materials
- Biotechnology
- Manufacturing
- Processing
- Space

Top down approach

European Commission

Leadership in enabling and industrial technologies (LEIT)

The emphasis for Leadership in Enabling and Industrial Technologies (LEIT) actions will be on:

- Research and innovation to strengthen Europe's industrial capacities and business perspectives, including SMEs

- Public-private partnerships (PPPs)

- Cross-cutting KETs

- Seizing ICT opportunities

- Contributing to solving Societal Challenges and to Focus Areas

- Cross-cutting aspects, like international cooperation and responsible research and innovation.

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Leadership in enabling and industrial technologies (LEIT)

Key Enabling Technologies (KETs), ICT and Space are areas of key industrial competences determining Europe's global competitiveness.

KETs cover different areas: Nanotechnologies, Advanced materials, Advanced manufacturing and processing as well as Biotechnology

ICT-LEIT has six main activities: A new generation of components and systems, Advanced Computing, Future Internet, Content technologies and information management, Robotics, Micro- and nano-electronic technologies, Photonics

The motto for EU **Space R&D for 2014 to 2020** is 'Prepare for the increasing role of space in the future and reap the benefits of space now'.

7. Societal Challenges

Societal Challenges

1. **Health**, demographic change and wellbeing

2. **Food** security, sustainable agriculture and forestry, marine and maritime and inland water research and the bio-economy

3. Secure, clean and efficient **energy**

4. Smart, green and integrated **transport**

5. **Climate** action, environment, 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

Top down approach

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Societal Challenge 1 : Health, demographic change and wellbeing

Budget: € 7,472 billion

Main objectives:

- Improve our understanding of the causes and mechanisms underlying health

- Improve our ability to monitor health and to prevent, detect, treat and manage disease

- Support older persons to remain active and healthy

- Test and demonstrate new models and tools for health and care delivery

Societal Challenge 2 : Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bio economy

Budget: € 3,851 billion

Main objectives:

- Population growth requires a change in approach to production, consumption , processing, storage and recycling of waste

- Environmental contamination responses

- Agriculture, forestry and industrial sectors of food and bio-based products play an important role in rural development and management of the natural heritage

Societal Challenge 3 : Secure, clean and efficient energy

Budget: € 5,931 billion

Main objectives:

- Energy is the driving force of the modern economy - maintaining our standard of living requires huge amounts of energy

- As the second largest economy in the world, Europe depends too much on the rest of the world in terms of energy

- The EU has set ambitious climate and energy targets to be achieved

Societal Challenge 4 : Smart, green and integrated transport

Budget: € 6,339 billion

Main objectives:

- Transportation will boost employment, economic development, welfare and global trade

- Growing connections between individuals and communities

- Reduction of societies based on oil stocks

- Reduction of traffic congestion and air pollution, road safety - influence on health and quality of life

- Creating a sustainable transport system adaptable to a modern, competitive Europe

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Societal Challenge 5 : Climate action, environment resource efficiency and raw materials

Budget: € 3,081 billion

Main objectives:

- Securing access to raw materials and clean water

- Protection of biodiversity and ecosystems

- Investing in innovative solutions to support a "green" economy that is in harmony with the natural environment

- Tackling climate change as a multidisciplinary priority (35% of the total budget of the program)

- Management of water and waste

Societal Challenge 6 : Europe in a changing world - Inclusive innovative and reflective societies

Budget: € 1,309 billion

Main objectives:

- Reduction of poverty - 80 million people with lack of access to education and work

- Funding of new strategies and governance structures in order to overcome the prevailing economic instability

- Supporting new forms of innovation such as open innovation, innovation of business models, public sector innovation and social innovation to meet social needs

- Supporting research and innovation in European heritage, identity, history and culture and the role of Europe throughout the world

Societal Challenge 7 : Secure societies – Protecting freedom and security of Europe and its citizens

Budget: € 1,695 billion

Main objectives:

- Maintaining public security through

  – combating crime and terrorism

  – protect communities from natural disasters

  – tackling illegal trafficking of people, drugs and counterfeit goods

- Development of new technologies for the protection of citizens

- Respect for privacy and compliance with fundamental rights

8. Spreading Excellence and Widening Participation
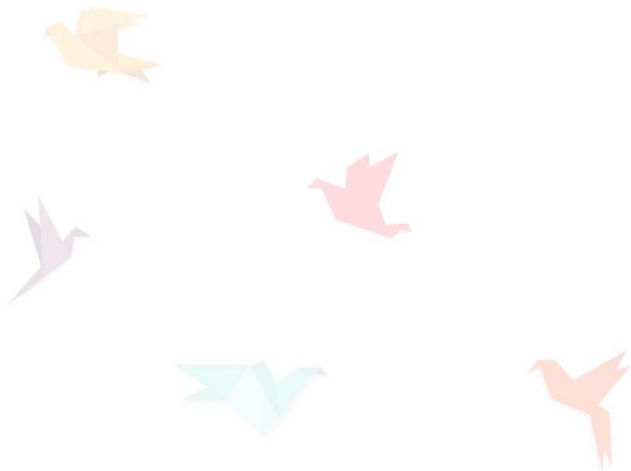
Spreading Excellence and Widening Participation

Budget: € 816,5 million

Main objectives:

- Enhancing economic growth and competitiveness in Low Research & Innovation (R&I) Performing Countries

- Facilitating access to networks and partnering opportunities

- Providing technical assistance and expertise

- Increasing efficiency of the national research and innovation systems

- Cooperation is established through several actions: "Teaming", "ERA-Chairs", "Twinning", "COST" and more

FUNDING FOR 3-7 YEARS

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9. Science with and for Society

Science with and for Society (SwafS)

Budget: € 462 million

- Integrates Horizon 2020 cross-cutting issues

- Emphasizes on Responsible Research and Innovation (RRI) including gender, and enhancing the attractiveness of the research profession

Main objectives:

- Ensure responsible science and enable the development of policies more relevant to citizens

- Improve science-literacy, citizens' responsibility and access to scientific careers

- Further enhance active participation and focus on science, research and innovation

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Horizon 2020
Work Programme
for Research & Innovation
2018-2020

Funding Opportunities for International Cooperation in selected Work Programmes

Success Stories from Lebanon

Name:

Function:

Research and Innovation

Work Programmes priorities

5 main priorities that address the COP21 Paris Agreement and the UN's Sustainable Development Goals*:*

1. **Increased investment in sustainable development and climate related R&I: the focus area** 'Building a low Carbon, Climate-resilient Future' will provide a very effective means to align R&I investments towards the climate and sustainable development targets.

2. **Integrating digitisation in all industrial technologies and societal challenges:** combination of digital technologies and advanced technologies and service innovation creates opportunities for increasing industrial competitiveness, growth and jobs and addressing societal challenges.

3. **Strengthening international R&I cooperation:** It allows to access research excellence and all types of know-how wherever it is located, and to tap into global talent, innovation networks and value chains. Measures will be taken in this work programme across all areas.

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4. **Societal Resilience:** large migration pressures, cyber-crime, security threats as well as hybrid threats. Such events require, more than ever, capacities for coordinated EU responses.

5. **Market creating innovation:** better performance for capturing innovative ideas with the potential to create new markets and strengthen Europe's industrial base. Innovation-friendly framework conditions are a prerequisite for such new markets to develop in Europe

WP focus areas

1. Building a low-carbon, climate resilient future

2. Connecting economic and environmental gains – the Circular Economy

3. Digitising and transforming European industry and services

4. Boosting the effectiveness of the Security Union

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Types of action

- **RIA:** Action to establish new knowledge and/or to explore the feasibility of a new or improved technology, product, process, service or solution. They may include basic and applied research, technology development and integration, testing and validation on a small-scale prototype in a laboratory or simulated environment. Funding rate: 100%

- **IA:** activities directly aiming at producing plans and arrangements or designs for new, altered or improved products, processes or services. They may include prototyping, testing, demonstrating, piloting, large-scale product validation and market replication. Funding rate: 70% (except for non-profit legal entities, where a rate of 100% applies)

- **CSA**: Actions consisting primarily of accompanying measures such as **standardisation, dissemination, awareness-raising and communication, networking, coordination or support services, policy dialogues and mutual learning exercises and studies**, **strategic planning, networking and coordination between programmes** in different countries. Funding rate: 100%

BASIC FACTS ON ICT IN WP2018-2020

Horizon 2020 Pillar:
Leadership in enabling and industrial technologies

⬇

Work Programme 2018-2020 Part 5.i.: Information and Communication Technologies

Main call groups:

⬇

Information and Communication Technologies

(ICT) total 35 topics

⬇

Digitising and Transforming European Industry and Services: Automated Road Transport

(DT-ICT) total 13 topics

⬇

Cybersecurity

(SU-ICT) 4 topics

56 topics
1,738 MEUR total budget

European Commission

Specific topics targeting cooperation with International partners

- Call: Information and Communication Technologies (H2020-ICT-2018-2020)

- Topic: **Electronic Smart Systems (ICT-07-2018)**

- Eligibility condition: Establishing of International cooperation in the field (CSA)

Official documents::

http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-07-2018.html

Targeted Opening: 31 October 2017 Deadline: 17 April 2018

European Commission

Specific topics targeting cooperation with International partners

- Call: Information and Communication Technologies (H2020-ICT-2018-2020)

- Topic: **Advanced 5G validation trials across multiple vertical industries (ICT-19-2019)**

- Eligibility condition: support to core international cooperation activities (CSA)

- Official documents::

http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-19-2019.html

Targeted Opening: 26 July 2018

European Commission

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Horizon 2020
Work Programme
for Research & Innovation
2018-2020

**Societal Challenge 2:
Food security, sustainable
agriculture and forestry,
marine, maritime and inland
water research and the
bioeconomy**

European
Commission

Research and
Innovation

BASIC FACTS ON THE CHALLENGE IN WP2018-2020

Horizon 2020 Pillar:
Societal Challenges 2 (SC2)

Main call groups:

Work Programme 2018-2020 Part 9:

Food security, sustainable agriculture and forestry, marine, maritime and inland water research and the bioeconomy

Sustainable Food Security (SFS)
Blue Growth (BG)
Rural Renaissance (RUR)

56 topics
1,333 MEUR total budget

European Commission

Specific topics targeting cooperation with International partners

- Call: Sustainable Food Security (H2020-SFS-2018-2020)

- Topic: **Food Systems Africa (LC-SFS-34-2019)**

- Eligibility condition: Proposals need to ensure the commitment and participation of a variety of partners established in the EU and in Africa

Official documents::

http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sfs-34-2019.html

Targeted Opening: 16 October 2018

European Commission

Specific topics targeting cooperation with International partners

- - Call: Blue Growth (H2020-BG-2018-2020)

- - Topic: **The Future of Seas and Oceans Flagship Initiative (BG-07-2019-2020)**

- - Sub-topic: Observations and forecasting

- Eligibility condition: International cooperation with Third Country partners is encouraged.

Official documents::

http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bg-07-2019-2020.html

Targeted Opening: 16 October 2018

European Commission

Potential topics of interest for participation of TC

- SFS-32-2018: Supporting microbiome coordination and the International Bioeconomy Forum
- SFS-33-2018: Support to the implementation of the EU-Africa Research and Innovation
- LC-SFS-34-2019: Food Systems Africa
- SFS-35-2019-2020: Sustainable Intensification in Africa
- CE-SFS-36-2020 - Diversifying farmers' income through small bio-based concepts
- EU-China FAB Flagship initiative
- SFS-37-2019: Integrated approaches to food safety controls across the food chain
- SFS-38-2018: Highly efficient management of soil quality and land resources
- CE-SFS-39-2019: High-quality organic fertilisers from biogas digestate
- **SFS-11-2018-2019: Anti-microbials and animal production**
- Partnership on Food and Nutrition Security & Sustainable Agriculture
- SFS-05-2018-2019-2020: New and emerging risks in plant health
- SFS-06-2019-2020: Stepping up integrated pest management
- SFS-14-2018-2019: Personalized Nutrition
- SFS-16-2018: Towards healthier and sustainable food
- **SFS-12-2019: A vaccine against African swine fever**
- **SFS-31-2019: ERANETs in agri-food**

#InvestEUresearch

Horizon 2020
Work Programme
for Research & Innovation
2018-2020

Socieatal Challenge 3: Secure, clean and efficient energy

Research and Innovation

Main call group: BUILDING A LOW-CARBON, CLIMATE RESILIENT FUTURE

LC-SC3-RES-1-2019-2020: Developing the next generation of renewable energy technologies. RIA 2-5 mil

LC-SC3-RES-25-2020: International cooperation for Research and Innovation on advanced biofuels and alternative renewable fuels (2020)

LC-SC3-ES-3-2018-2020: Integrated local energy systems (Energy islands). IA 5-6 mil

CE-SC3-NZE-2-2018: Conversion of captured CO297. RIA 3-4 mil

LC-SC3-NZE-5-2019-2020: Low carbon industrial production using CCUS. IA 10-12 mil

European Commission

BASIC FACTS ON THE CHALLENGE IN WP2018-2020

Horizon 2020 Pillar: Societal Challenges 5 (SC5)

Work Programme 2018-2020 Part 12:

Climate action, environment, resource efficiency and raw materials

Main call groups:

Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement
(LC-CLA, total 8 topics**)**

Greening the economy in line with the Sustainable Development Goals
(SC5, total 21 topics**)**

9 topics
1,1 MEUR total budget

European Commission

Specific topics targeting cooperation with International partners

- Call: Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement (LC-CLA)

- Topic: **Human dynamics of climate change (LC-CLA-05-2019)**
  a) Climate services for Africa
  b) Climate and human migration

- Eligibility condition: For both of the sub-topics, international cooperation is encouraged.

Targeted Opening: 14 November 2018

Official documents::

http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-cla-05-2019.html

European Commission
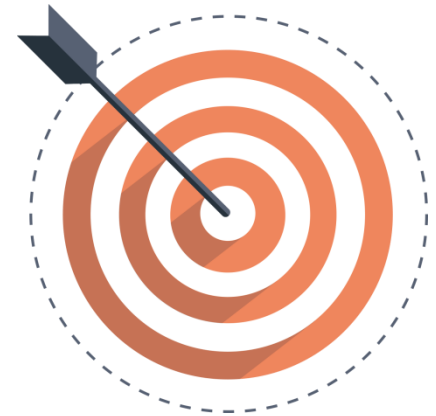
Specific topics targeting cooperation with International partners

- Call: Greening the economy in line with the Sustainable Development Goals

- Topic: **Raw materials innovation for the circular economy: sustainable processing, reuse, recycling and recovery schemes (CE-SC5-07-2018-2019-2020)**

- Eligibility condition: International cooperation is encouraged.

Official documents::

http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-sc5-07-2018-2019-2020.html

Targeted Opening: 14 November 2018

European Commission

Europe in a changing world

- MIGRATION-01-2019: Understanding migration mobility patterns: elaborating mid and long-term migration scenarios. RIA 3 mil

- MIGRATION-02-2018: Towards forward-looking migration governance: addressing the challenges, assessing capacities and designing future strategies. RIA 3 mil

- MIGRATION-03-2019: Social and economic effects of migration in Europe and integration policies. RIA 3 mil

- MIGRATION-05-2018-2020: Mapping and overcoming integration challenges for migrant children. RIA 3 mil

- DT-MIGRATION-06-2018-2019: Addressing the challenge of migrant integration through ICT-enabled solutions. IA 4-6 mil

- MIGRATION-07-2019: International protection of refugees in a comparative perspective14. RIA 3 mil

- MIGRATION-08-2018: Addressing the challenge of forced displacement. RIA 3 mil

Secure societies

- SU-INFRA01-2018-2019-2020: Prevention, detection, response and mitigation of combined physical and cyber threats to critical infrastructure in Europe. IA-7/8 mil

- SU-DRS05-2019: Demonstration of novel concepts for the management of pandemic crises   IA EUR 10 million

Science with and for society

- SwafS-12-2019: The gender perspective of science, technology and innovation (STI) in dialogue with third countries. RIA-EUR 2 million

- SwafS-14-2018-2019: Supporting the development of territorial Responsible Research and Innovation. CSA-2Million

JOIN NOW!!!

The new Horizon 2020 Work Programme and Calls for 2018/2020 are open for application!

http://ec.europa.eu/programmes/horizon2020/en

Non-EU Expert Evaluators Needed!
https://ec.europa.eu/research/participants/portal/desktop/en/experts/index.html

European Commission

MedReset – The Story

The Challenge

- Boundaries of Mediterranean area are not clearly delimited

- Dynamic region with movement of people associated with religious, linguistic and ethnic diversity

- Question on the effectiveness of bilaterism vs regionalism taking into account the role of the European Neighbourhood Policy and its perceiption by the South

The Solving Approach

- Develop alternative visions for a new Mediterranean partnership and corresponding EU policies

- Evaluating the effectiveness and potential of EU policies by investigating whether current policies still match the changing geopolitical configuration of the Mediterranean area

MedReset – Project Details

Full Title *A comprehensive, integrated,and bottom-up approach to reset our understanding of the Mediterranean space, remap the region,and reconstruct inclusive, responsive,and flexible EU policies in it*

Instrument RIA - Research and Innovation action

Countries 12 partners from PL, UK, TR, TN, LB, ES, EG, FR, MA,

Coordinator Istituto Affari Internazionali, Rome, IT

Local Partners American University of Beirut, Lebanon

Arab Studies Institue – Research and Education Methodologies, Brummana, Lebanon

EU contribution 2,5 Mio. €

Duration April 2016– March 2019

Website http://www.medreset.eu/

RESPOND – The Story

The Challenge

- Migration crisis in the Mediterranean has put the spotlight on immediate needs

- EU should face up to the need to strike the right balance in its migration policy and send a clear message to citizens that migration can be better managed collectively by all EU actors

- European policy for asylum, refugees, visas, external border regime, detention centres should be assessed

The Solving Approach

- RESPOND probes policy-making processes and policy (in)coherence through comparative research in source, transit and destination countries

- Focus on Border management, international refugee protection, reception policies, integration policies, conflicting Europeanization and externalization

RESPOND – Project Details

Full Title   *Multilevel Governance of Mass Migration in Europe and Beyond*

Instrument   RIA - Research and Innovation action

Countries   14 partners from SE, UK, DE, TR, SE, IT, GR, AT, PL, DK, LB, Iraq

Coordinator   Uppsala Universitet, Uppsala (SE)

Local Partner   Lebanon Support, Furn el Chebbak, Lebanon

EU contribution 3,3 Mio. €

Duration   December 2017 – November 2020

Website   https://www.ames.cam.ac.uk/research-at-fames/research-projects/respond-multi-level-governance-of-mass-migration-in-europe-and-beyond

WeHubs – The Story

The Challenge

- Women play a small role in digital economy

The Solving Approach

- Provide an indirect support to women web entrepreneurs

- Increase their participation in web enterprises

- Encouraging the existing web entrepreneur's ecosystems to provide dedicated support and services to women

- Promotion of role models of successful women web entrepreneurs

European Commission
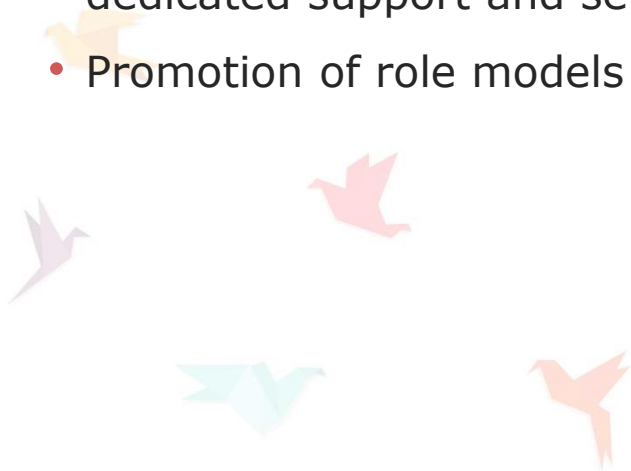
WeHubs – Project Details

Full Title *The European network of Women web Entrepreneurs Hubs*

Instrument CSA - Coordination and support action

Countries 9 partners from BE, FR, GR, NO, UK, DE, Lebanon

Coordinator European Business and Innovation Centre Network AISBL, Brussels, Belgium

Local Partner Berytech Foundation, Beirut, Lebanon

EU contribution 0,76 Mio. €

Duration January 2015 – December 2016

Website http://wehubs.eu/

European Commission

MERID – The Story

The Challenge

- to intensify and encourage R&I cooperation between the EU and the Middle East to employ R&I as channels for intercultural dialogue, understanding and reconciliation.

The Solving Approach

- **Identify** within the EU-Middle East research relations, the **key priorities** to be discussed, by focusing on the nodes that have more impact in terms of **"untapped" potential**.

- **Promote** a method for **common agenda setting** and a **shared methodology** for the different countries research systems and policy-making levels to express and bring their instances to the table.

- **Ensure** that the **discussion** of relevant issues is **constantly encouraged and updated**, that debating research cooperation will unfold in a cooperative manner.

European Commission

MERID

Full Title	*Middle East Research and Innovation Dialogue*
Instrument	CSA - Coordination and support action
Countries	13 partners Slovenia, Italy, Belgium, United Kingdom, Germany, Spain and Greece, Egypt, Jordan, Lebanon, Palestine, Iraq and Iran
Coordinator	EMUNI University, SLO
Local Partner	CNRS, Beirut, Lebanon
EU contribution	EUR 999 750
Duration	1 Jan 2015 **to** 31 Dec 2017
Website	http://meridproject.eu/

European Commission