Participation in HORIZON 2020 Introduction

SL – EU Startup and Innovation Week

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Homagama, Sri Lanka, 4 March 2020

Horizon 2020
Open to the World

European Union
A major knowledge producer

- 6% of World's popul.; 500 million people; 27 countries
- 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 EU in the World
Some of the most innovative companies

Horizon 2020

- Is the EU's multiannual and multinational **Framework Programme for Research and Innovation**
- With approx. € 80 billion is the largest such Programme

Why is interesting for me?

H2020 is OPEN to researchers and institutions from all over the World!

What Open means?

- More than 150 countries participate already in H2020, including Sri Lanka!

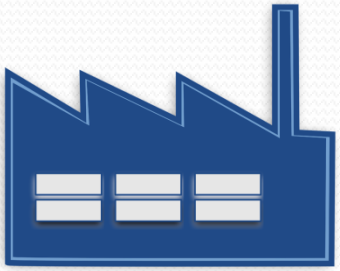
- '*Third countries*' participate in more than 500 collaborative projects, receiving approx. 150 million €

What are the benefits?

- Participation in **ambitious research and innovation projects**
- Access to new **networks and alliances**
- Opportunities for **mobility** to the EU
- Access to large Research **Infrastructures**
- Visibility of research and opportunities for **exploitation** of research results
- Tackling **Societal Challenges** with high-level European and other scientists
- And last but not least: getting **funds** for research

H2020: three major pillars

Excellent Science	**Researcher driven** New technologies, jobs, wellbeing
Industrial leadership	**Industry driven** Investments in key technologies
Societal Challenges	**Society driven** Addressing challenges of citizens and society



Horizon Europe (2021 – 2007) Based/linked to SDGs

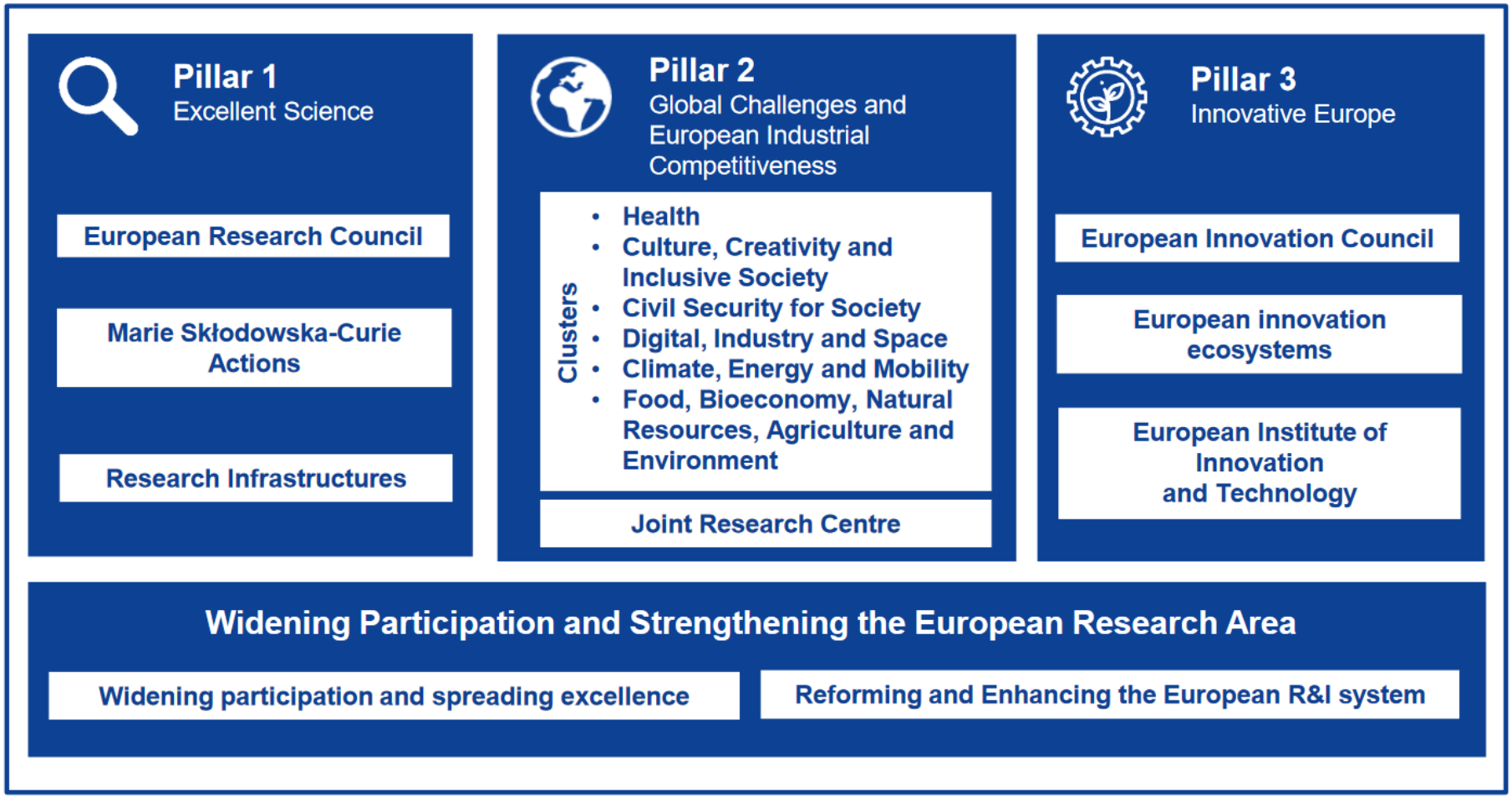
Our vision

A sustainable, fair and **prosperous** future for **people** and **planet** based on European values.

- Tackling **climate change** (35 % budgetary target)
- Helping to achieve **Sustainable Development Goals**
- Boosting the Union's **competitiveness and growth**

Credits: https://www.un.org/sustainabledevelopment/sustainable-development-goals/

Horizon Europe: Preliminary structure



Source: https://ec.europa.eu/info/sites/info/files/research_and_innovation/strategy_on_research_and_innovation/presentations/horizon_europe_en_investing_to_shape_our_future.pdf

Opportunities for researchers and entities in H2020

Participation in H2020

Two ways exist to participate and getting funding

As individual researcher

In **Collaborative research**

>3 entities
3 EU countries

Funding for individual researchers in H2020

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

Excellent Science

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

excellent research

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

mobility of researchers

Basic condition: Addressed to researchers who want to **work** (at least partially) **in EU**

Excellent Science

H2020

What does the European Research Council (ERC) offer?

- It is 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 or in country associated to Horizon 2020
- 1 Selection criterion: EXCELLENCE
- At least 50% research has to be done in Europe
- Project duration: Up to 5 years

>500 grants to non-EU/AC principal investigators

Excellent Science

H2020

Four ERC main funding lines

Starting Grant:
Early career top researchers, 2-7 years after PhD| €1.5 million

Consolidator Grant:
Top researchers, 7-12 years researchers after PhD | €2 million

Advanced Grant:
Senior researchers with significant research achievements €2.5 million

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

Excellent Science

H2020

Marie Skłodowska-Curie actions (MSCA)

- **Opportunities for training and career development**
- **Mobility of researchers is mandatory**

MSCA principles:

- **Bottom-up approach**
- Open to all career stages and nationalities
- International, intersectoral and interdisciplinary career and knowledge-exchange

Excellent Science

H2020

b) 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

Excellent Science

H2020

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 organisation
- An individual fellowship provides tailored training for your career in research
- You will receive a work contract including social security for 12-24 months

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
- As a network of organisations you can apply for funding within the following funding schemes:

ETN	EID	EJD
European Training Networks	European Industrial Doctorates	European Joint Doctorates
Participants implement a joint research programme	Doctoral programme with the non-academic sector	Doctoral programme to deliver joint degrees

Source: European Commission

Excellent Science

H2020

RISE: Research and Innovation Staff Exchange

- **As a university, research centre or company you can conduct short term staff exchanges within a joint research project**
- **Staff (research, management or technical) of any nationality can participate**
- Sharing of knowledge and ideas from research to market through trans-boarder and inter-sectoral collaboration with Europe

Excellent Science

H2020

RISE: Research and Innovation Staff Exchange

Conditions:

- At least **3 entities from 3 different countries** out of which 2 should come from the EU
- Staff should be engaged in or linked to research and innovation activities for at least one month prior to the secondment
- Duration: Up to 4 years
- Costs covered: Secondment of staff members for one month to one year

Funding for *collaborative research* in Horizon 2020

Participation in a collaborative projects - General

Excellent Science

Industrial leadership

Societal Challenges

- **Any entity** (public, private, NGO, etc.) can participate in collaborative projects of Horizon 2020
- **Sri Lankan entities** can participate and receive funding (even coordinating a project)
- Minimum conditions exist:
  - 3 entities from different EU member states or associated countries
  - Sri Lanka can participate *in addition* to this minimum

Collaborative calls exist in the 3 Pillars

Excellent Science

- In (some) Marie Sklodowska Curie Actions
- FET open
- Research Infrastructures

Industrial leadership

*Leadership in Enabling and Industrial Technologies (LEIT)

Societal Challenges

* All (7) Societal Challenges (Health, Food, Energy, etc.)

Industrial leadership

H2020

Leadership in Enabling and Industrial Technologies (LEIT)

- ICT
- Nanotechnology
- Advanced Materials
- Biotechnology
- Manuf. & Processing
- Space

Leadership in Enabling and Industrial Technologies (LEIT)

Emphasis of the actions (projects) on:

- Research and innovation to strengthen Europe's industrial capacities and business perspectives, including SMEs
- Public-private partnerships (PPPs)
- Cross-cutting Key Enabling Technologies (KETs)
- Seizing ICT opportunities
- Contributing to solving Societal Challenges
- Cross-cutting aspects, like international cooperation and Responsible Research and Innovation.

Leadership in Enabling and Industrial Technologies (LEIT)

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

Nanotechnologies in H2020

EN

Horizon 2020

Work Programme 2018-2020

5.ii. Nanotechnologies, Advanced Materials, Biotechnology and Advanced Manufacturing and Processing

IMPORTANT NOTICE ON THIS WORK PROGRAMME

This Work Programme covers 2018, 2019 and 2020. The parts of the Work Programme that relate to 2020 (topics, dates, budget) have, with this revised version, been updated. The changes relating to this revised part are explained on the Funding & Tenders Portal.

(European Commission Decision C(2019)4575 of 2 July 2019)

Nanotechnologies (WP 2018-2020)

Nanotechnologies (WP 2018-2020)

Nanotechnologies (WP 2018-2020)

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

H2020: three major pillars

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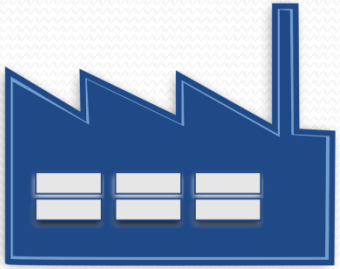
Industrial leadership	**Industry driven** Investments in key technologies	
Societal Challenges	**Society driven** Addressing challenges of citizens and society	

+ SwafS + few other (EIT, Spreading Excellence, etc.)

H2020: who can be funded?

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

- Other partner countries are funded when:
  - Agreement exists between 2 funding bodies
  - There is provision in the call text
  - The Commission considers essential the participation

Funding rates in H2020

Basic funding rates:

- **100% of the (eligible) costs** of the research project for Research and Innovation
- **70% of the (eligible) costs** of the project for Innovation (since it is closer to market)
- On top of that: **+25%** as a flat rate for ***indirect costs***

Eligible costs: labor, consumables, travel, events, publication costs, (equipment), etc.

Key steps for being involved in an H2020 project

Key steps


Find a call
Find partners*
Prepare & submit the proposal
Deadline!
Typical criteria:
Excellence
Impact
Implementation
Succeed in evaluation
Sign the Grant
GO!
*When needed
'months'
<8 months

12 facts you need to know about Horizon 2020 proposal preparation I

1. Funding opportunities published in the **Funding & Tenders Portal**
2. Proposal submission **in response to „calls for proposals“ only**
3. Typically calls open annually
4. Calls open at different times

Source: European Commission

12 facts you need to know about Horizon 2020 proposal preparation II

5

- Calls are open for at least 3 months

6

- Calls describe in detail what is expected from the applicants

7

- Call template defines structure for proposal

8

- Proposals consist of an administrative and descriptive part

Source: European Commission

12 facts you need to know about Horizon 2020 proposal preparation III

9 Proposal structure is oriented towards evaluation criteria

10 One-stage or two-stage proposal submission

11 Online proposal submission only

12 Time to grant max.8 months

Source: European Commission

To sum up…

What we have see

- **Importance** and size of H2020
- **Openness** of H2020
- **Benefits** for participating in H2020
- The overall **structure** of H2020 → **3 main pillars**
- The **two ways** for participating: **individual** participation and **collaborative research**
- The **content** of every pillar
- The **funding rates**
- The **process**

Online information

- **Horizon 2020**: https://ec.europa.eu/programmes/horizon2020/en
- **Participant Portal**: https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/programmes/h2020
- **Marie Sklodowska-Curie Actions**: http://ec.europa.eu/research/mariecurieactions/
- **European Research Council**: http://erc.europa.eu/
- **EURAXESS**: www.euraxess.org

Thank you for your attention!

Dr. George Bonas

A.R.S. Progetti S.P.A