

HORIZON 2020

The EU Framework Programme for
Research and Innovation
2014-2020

Ralf König

FFG – Austrian Research Promotion Agency

DTB Seed Money Facility Event
27 September 2017, Vienna, Austria

WHAT IS HORIZON 2020?



- **a 80 (70) billion Euro research and innovation funding programme (2014-2020)**
- **A core part of Europe 2020 Strategy, Innovation Union Flagship Initiative & European Research Area:**
 - Responding to the economic crisis
 - Addressing people's concerns
 - Strengthening the EU's global position

Horizon 2020 – The Structure



Excellent Science

Aim:
Science basis

1. European Research Council (ERC)
2. Future and Emerging Technologies (FET)
3. Marie Skłodowska-Curie
4. Research Infrastructures

Industrial Leadership

Aim:
Growth

1. Leadership in enabling and industrial technologies (LEIT)
incl. key enabling technologies (KETs)
2. Risk financing
3. Innovation in SMEs

Societal Challenges

Aim:
Tackling societal problems

1. Health, demographic change
2. Food quality, bio-economy
3. Energy
4. Transport
5. Climate action resource efficiency
6. Inclusive, innovative societies
7. Secure societies

- Spreading excellence and widening participation
 - Science with and for Society
 - European Institute of Innovation and Technology (EIT)
 - Joint Research Centre (JRC)

PRIORITY 1 EXCELLENT SCIENCE

- ERC
- FET
- Marie Skłodowska-Curie
- Research infrastructures



WHY?



- World class science is the foundation of tomorrow's technologies, jobs and wellbeing
- Europe needs to develop, attract and retain research talent
- Researchers need access to the best infrastructures

<i>European Research Council</i> Frontier research by the best individual teams	13 095 M€
<i>Future and Emerging Technologies</i> Collaborative research to open new fields of Innovation	2 696 M€
<i>Marie Curie actions</i> Opportunities for training and career development	6 162 M€
<i>Research infrastructures</i> <i>(including e-infrastructure)</i> Ensuring access to world-class facilities	2 488 M€

PRIORITY 2 INDUSTRIAL LEADERSHIP

- KETs
- Risk finance
- Innovation in SMEs



WHY?

- Strategic investments in key technologies (e.g. advanced manufacturing, microelectronics) **underpin innovation across existing and emerging sectors**
- Europe needs to **attract more private investment** in research and innovation
- Europe needs **more innovative SMEs** to create growth and jobs

<i>Leadership in enabling and industrial technologies</i> (ICT, nanotechnologies, materials, biotechnology, manufacturing, space)	13 557 M€
<i>Access to risk finance</i> Leveraging private finance and venture capital for research and innovation	2 842 M€
<i>Innovation in SMEs</i> Fostering all forms of innovation in all types of SMEs	616 M€

KEY ENABLING TECHNOLOGIES (KETs)

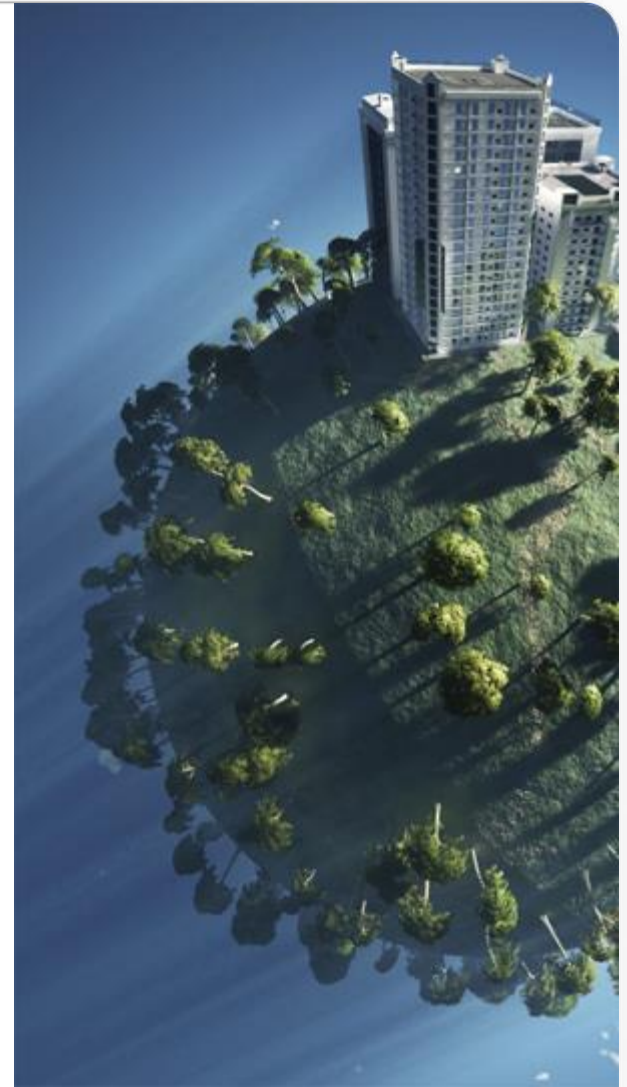


1. Information and Communication Technologies
 2. Nanotechnologies
 3. Advanced materials
 4. Biotechnology
 5. Advanced manufacturing and processing
 6. Space
- + cross-cutting actions (incl. with the societal challenges)
to exploit synergies and complementarities

PRIORITY 3

SOCIETAL CHALLENGES

- Health
- Bioeconomy
- Energy
- Transport
- Climate action
- Integrative, innovative societies
- Secure societies



WHY?



- **Concerns of citizens and society/EU policy** objectives (climate, environment, energy, transport etc) cannot be achieved without innovation
- Breakthrough solutions come from **multidisciplinary collaborations**, including social sciences & humanities
- Promising **solutions** need to be **tested, demonstrated and scaled up**

HOW WERE THE CHALLENGES SELECTED?



FFG

- The selection follows the Europe 2020 strategy and takes into account:
 - Need to concentrate resources on the most important challenges
 - The challenges have to be across Europe
 - The economic and social situation in Europe and worldwide
 - Europe's performance now and in the future
 - The need to choose a European approach

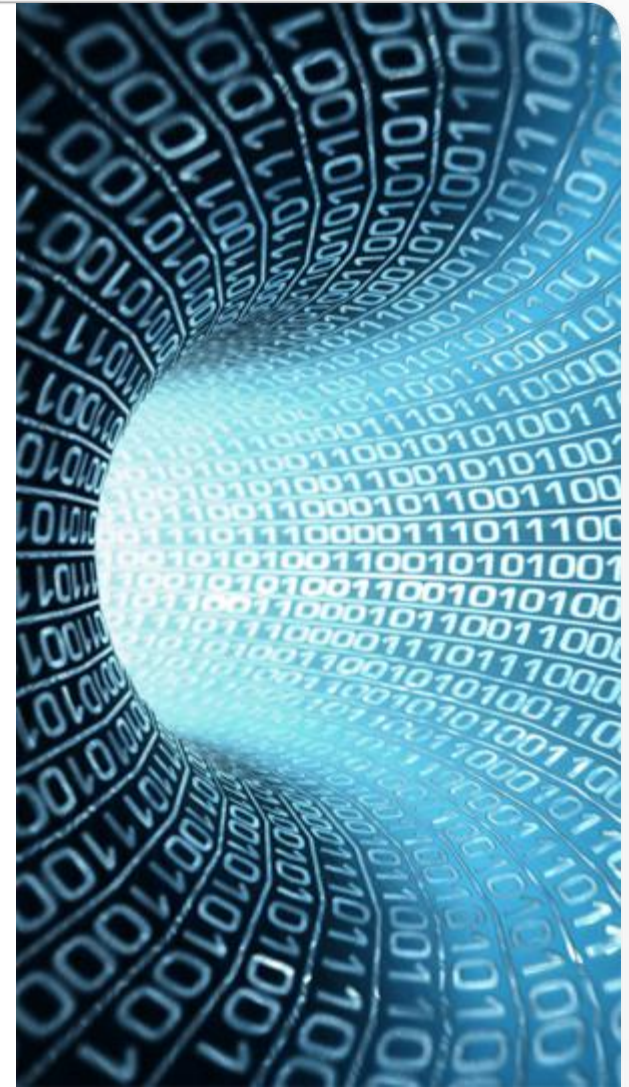
SOCIETAL CHALLENGES



Health, demographic change and wellbeing	7 472 M€
Food security, sustainable agriculture, marine and maritime research & the bioeconomy	3 851 M€
Secure, clean and efficient energy	5 931 M€
Smart, green and integrated transport	6 339 M€
Climate action, resource efficiency and raw materials	3 081 M€
Inclusive, innovative and reflective societies	1 309 M€
Secure societies	1 695 M€

ALSO BELONG TO HORIZON 2020...

- Spreading excellence and widening participation (Widening)
- Science with and for society (SWAFS)
- European Institute of Innovation and Technology (EIT)
- Joint Research Centre (JRC)

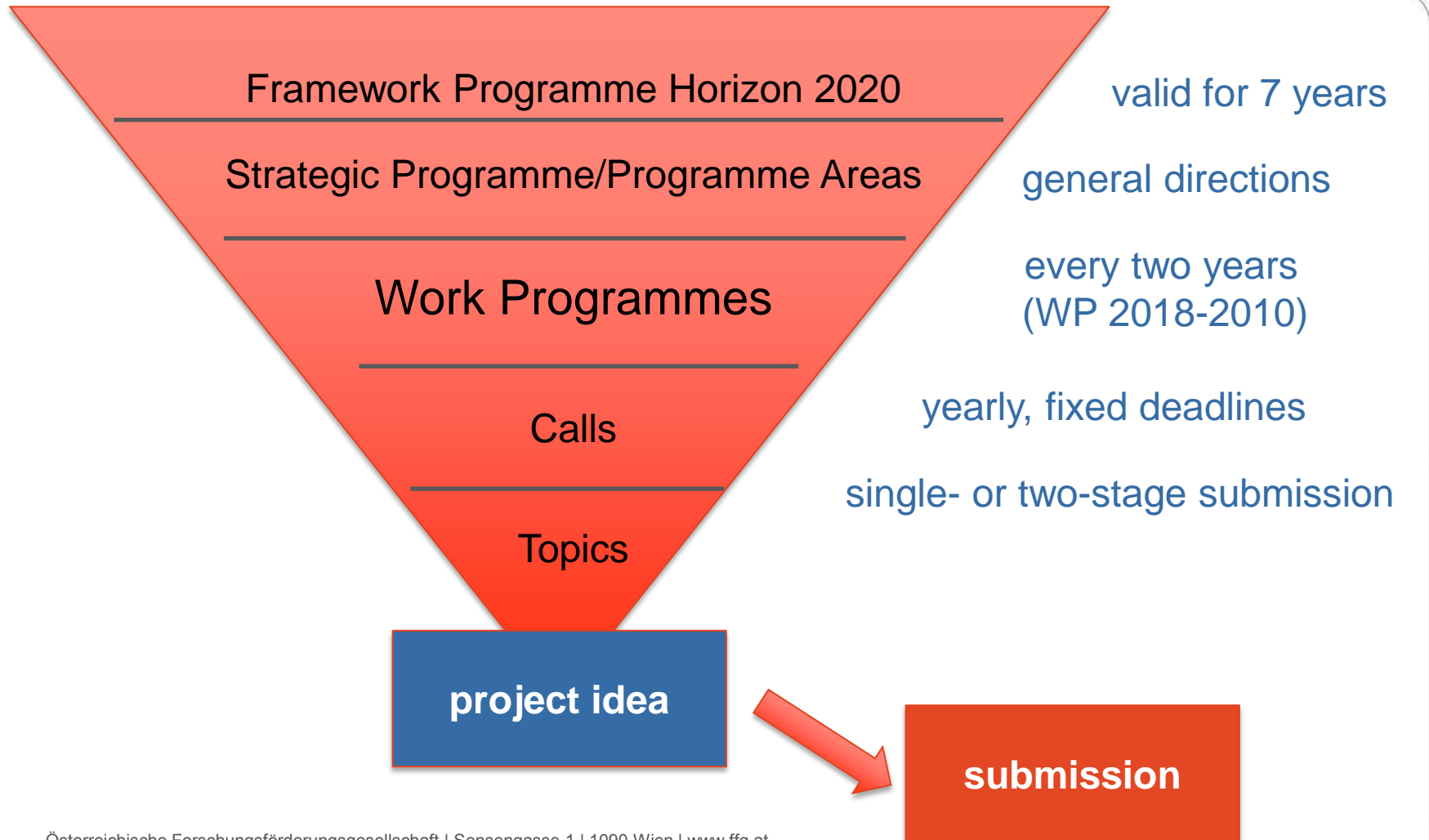


BUDGET



<i>Spreading excellence and widening participation</i>	816 M€
<i>Science with and for society</i>	462 M€
<i>European Institute of Innovation and Technology (EIT)</i> Combining research, innovation & training in Knowledge and Innovation Communities	2 711 M€
<i>Joint Research Centre (JRC)</i> Providing a robust, evidence base for EU policies	1 903 M€

HORIZON 2020: FROM PROGRAMME TO PROJECT





A single set of rules

- Adapted for the whole research and innovation cycle
- Covering all research programmes and funding bodies
- Aligned to the Financial Regulation, coherent with other new EU Programmes

Funding rates

	Research actions	Innovation actions	Indirect costs
Non-profit organisations	100 %	100 %	25 %
All other organisations	100 %	70 %	25 %

OTHER ERA - EUROPEAN RESEARCH AREA FUNDING OPPORTUNITIES

- Horizon 2020 - Science with and for Society (SWAFS)
- Horizon 2020 - Access to risk finance
- COST
- EUREKA/EUROSTARS
- P2P Networks



Strategic Programming: 8 Activity Lines for SWAFS:

- attractiveness of scientific careers
- **gender equality**
- integration of citizens' interests and values in research and innovation (R&I)
- formal and informal **science education**
- accessibility and **use of research results**
- governance for the advancement of **responsible research and innovation**
- anticipation of potential environmental, health and safety impacts
- improved knowledge on science education

- **Cross cutting**
- **Gender Equality**
- **Responsible Research and Innovation (RRI)**

Links

Science with and for Society European Commission

<https://ec.europa.eu/programmes/horizon2020/en/h2020-section/science-and-society>

Participant Portal

<https://ec.europa.eu/research/participants/portal/desktop/en/home.html>

Gender in the European Research Area

<https://era.gv.at/directory/83>

SWAFS in Austria (FFG)

<https://www.ffg.at/europa/h2020/science-society>

Michalis Tzatzanis

National Contact Point for Science with and for Society

+43 5 7755 4405

michalis.tzatzanis@ffg.at

COST – COOPERATION IN SCIENCE & TECHNOLOGY



- Oldest funding program for **transnational research & technology cooperation** (since 1971)
- COST supports interdisciplinary and intersectoral **networks**
 - sharing of Know-how at meetings, training schools & scientific missions
 - cooperation of academic and non-academic sector
 - development of new ideas for future research projects
 - education and career support for young researchers
- coordination of **nationally funded research activities** in so called **COST Actions**
 - funding of travel costs
 - organisation of events
 - dissemination



- „**Bottom Up**“ approach
- participation in running COST Actions possible:
http://www.cost.eu/COST_Actions/all_actions
- Low-threshold / easy „**starter**“ programme
- Focus on integration of **Inclusiveness Target Countries (ITC)**
(Bosnia-Herzegovina, Bulgaria, Cyprus, Czech Republic, Estonia, Croatia, Hungary, Lithuania, Latvia, Luxembourg, Malta, Montenegro, Poland, Portugal, Romania, Slovenia, Slovakia, the former Yugoslav Republic of Macedonia, Serbia and Turkey.)



SUBMISSION OF A NEW COST ACTION



- **1-2 „Collection Dates“ / year**
next Collection Date: **April 25, 2018**

- **„Network of proposers“**
 - min. 7 proposers incl. 3 from Inclusiveness Target Countries (ITC)
 - easy access, no consortium agreements
 - registered COST profile needed (<https://e-services.cost.eu/user/login/>)



Official COST website

<http://www.cost.eu/>

COST National Coordinators (CNC) contacts

http://www.cost.eu/about_cost/who

COST in Austria (FFG)

<https://www.ffg.at/programme/cost>

CNC Austria

Nicole Schmidt

nicole.schmidt@ffg.at

+43 57755 4105

Loan guarantees or loans for innovative organisations (SME!)

(remark: loans for non-innovative organisations via COSME)

- **Why?** -> commercial banks often do **not grant loans** for innovative tasks (or at **increased interest rates**) due to a perceived higher risk for them
- **no H2020-project necessary!**
 - loans for regional / national / internal R&D&I
 - or as supplement to H2020-grants
- demand-driven: **“first come first served”**
- advantage for SMEs: **national proximity: financial intermediaries**

ALSO: Initiatives for **equity participation** of investors
(coaching, pitching events): www.investhorizon.eu

H2020-RISK FINANCE: INNOVFIN PRODUCTS (1)



complementary with COSME

- COSME – Loan Guarantee facility (LGF)
- COSME – Equity Facility for Growth (EGF)

complementary with EFSI
(European Fund for Strategic Investments)

= „Juncker-Package“

= „Investment Plan“

H2020-RISK FINANCE: INNOVFIN PRODUCTS (2)



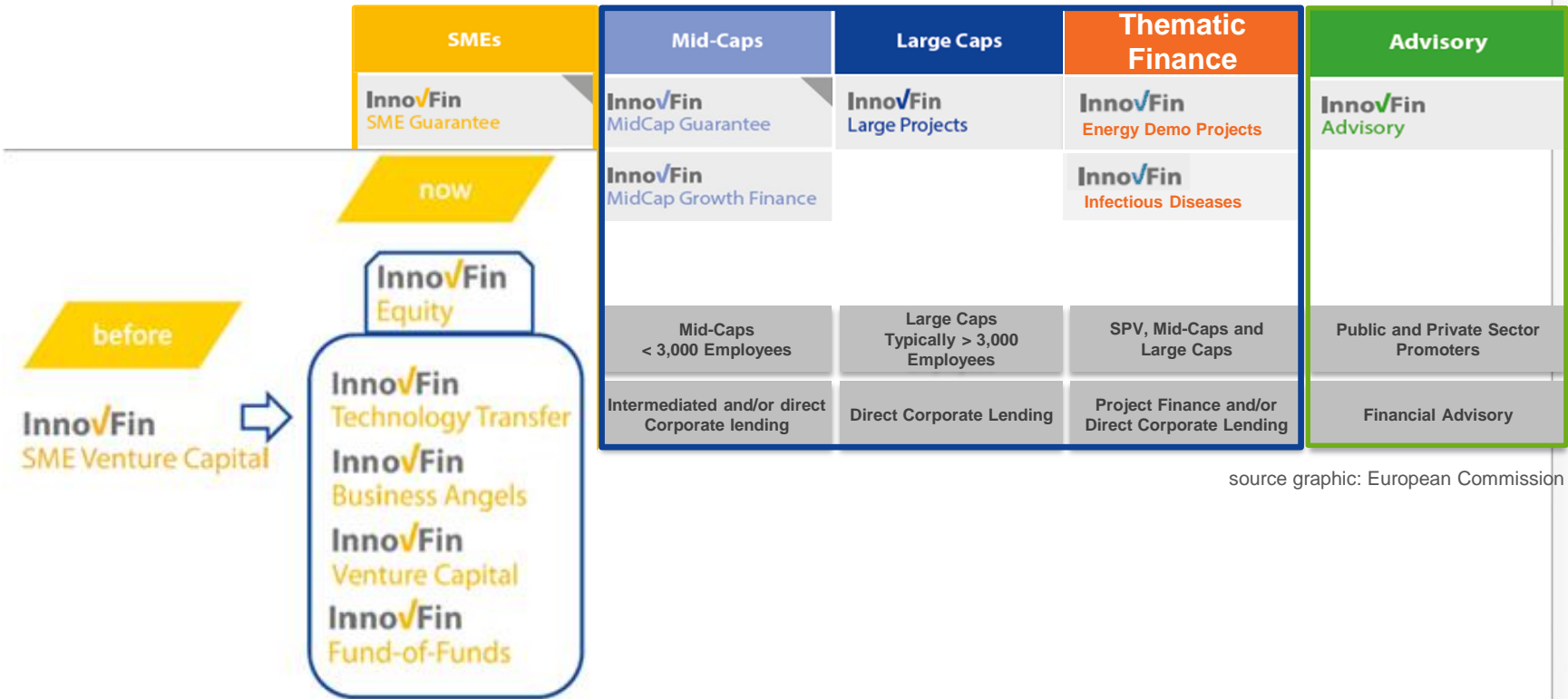
InnovFin

SMEs	Mid-Caps	Large Caps
InnovFin SME Guarantee	InnovFin MidCap Guarantee	InnovFin Large Projects
InnovFin SME Venture Capital	InnovFin MidCap Growth Finance	

source graphic: European Commission

target group:	SME + small MidCaps (< 500 VZÄ)	medium / large MidCaps (< 3000 VZÄ)	cooperatives (> 3000 VZÄ), universities, RTOs, R&D- infrastructures, PPP, ...
assessment -criteria:	company = „innovative“ (criteria catalogue), using the financing for what they want to ...		concrete R&D- undertakings
loan size:	25.000 – 7,5 mio	7,5 mio – 50 mio	7,5 mio – 300 mio

IH2020-Risk finance: InnovFin products (3)



source graphic: European Commission

number of available products is constantly increasing

Access to risk finance in Austria (FFG)

<https://www.ffg.at/europa/h2020/science-society>

Marcus Bidmon

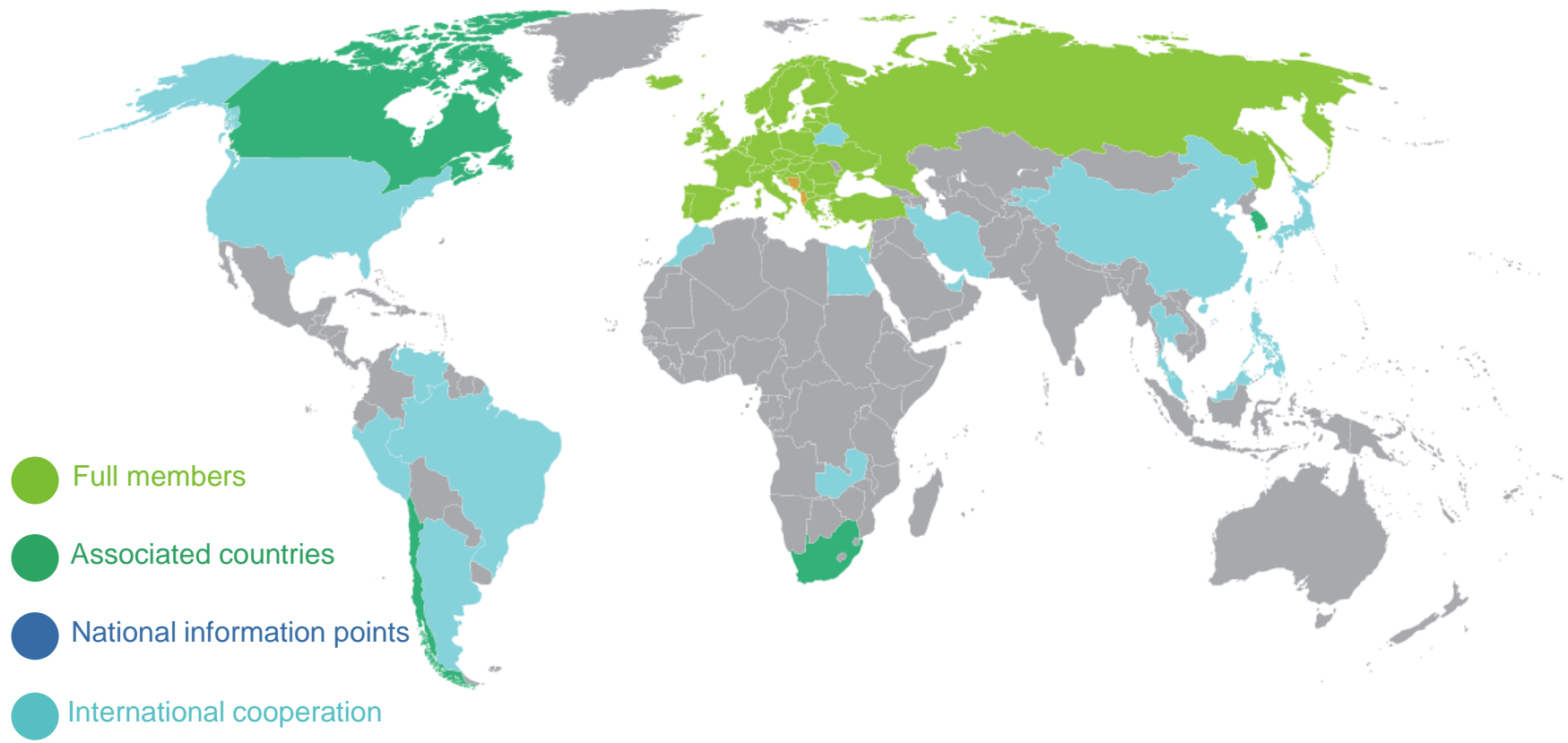
National Contact Point for Access to risk finance

+43 5 7755 4302

marcus.bidmon@ffg.at

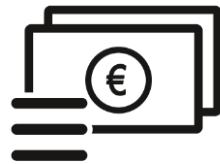
- Is an intergovernmental network (of funding agencies and ministries) – 44 members and associated member states – founded 1985
- Supports and funds cross border, market oriented research, experimental development and innovation
- The core target group are companies, consortia may include research organizations
- Main goal: boosting economies through innovation

EUREKA MEMBERS AND COLLABORATION



MAIN CHARACTERISTICS OF EUREKA PROJECTS

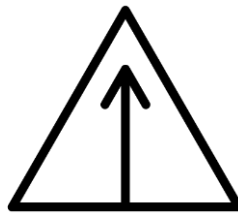
Market-oriented nature



Innovative product, process or service



Bottom-up approach



International cooperation



Since 1985...

6.400+
Projects

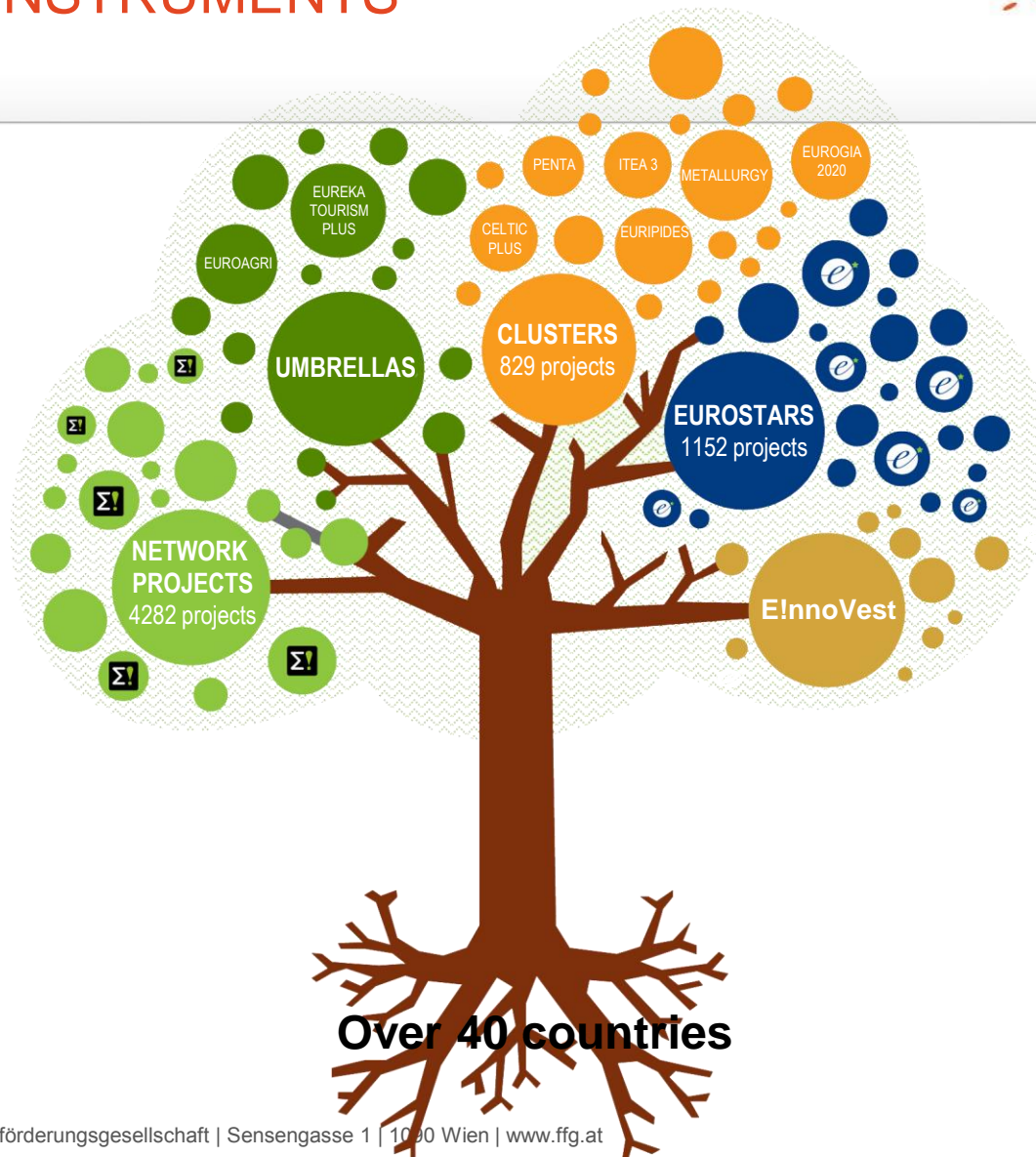
26.000+
Organisations
Involved

38+ BILLION €
public-private funding

EUREKA INSTRUMENTS



FFG



- One agreement – access to all members of the network
- **Variable geometry** – keeping decisions, budgets and rules in national organisations
- Leverage for national budgets - international impact of national funding
- Organization of bilateral or multilateral calls within network without additional costs and by using existing procedures
- Customers deal with well known authorities and always the same rules and procedures

ELIGIBILITY CRITERIA 1



- The partners should include **at least, one Non-Austrian and one Austrian (for profit) company**. Participation of research institutes/universities is welcome as subcontractors according to each country's funding regulations.
- The Austrian and Non-Austrian partners must express their will to cooperate, on an **equal basis**, in the development of a **new product, industrial process or service**.
- The product, process or service must be **innovative and there must be a technological risk involved**.
- The project should be **equally significant for both partners**.

ELIGIBILITY CRITERIA 2



- The project should have an obvious **advantage and added value resulting from the technological cooperation** between the participants from the two countries (e.g. increased knowledge base, commercial leads, access to R&D infrastructure etc.).
- Partners are required, prior to obtaining the Eureka label, to have previously signed a **consortium agreement on the commercialization** of the product, process or service once the phase of research and development has been completed which includes the ownership and use of know-how and IPR settlements (“Consortium Agreement”).
- Projects must be focused on technologies for civilian use (**non-military**).

- Companies registered in Austria are eligible for funding, universities and research centers can be funded as subcontractors only.
- In addition to the EUREKA project form the Austrian participant -> full proposal to the General Program (Basisprogramm) via e-Call at the FFG webpage. The evaluation is carried out by internal experts.
- The project must fulfill the national criteria (“Basisprogramm-Leitfaden”). The funding provided by FFG are grants:
 - max. 60% of the eligible costs for small companies,
 - max. 50% of the eligible costs for medium-sized companies and
 - max. 40% for large companies,

Official EUREKA website

<http://www.eurekanetwork.org>

EUREKA in Austria (FFG)

<https://www.ffg.at/programme/eureka>

Austrian EUREKA National Project Coordinator

Irina Šlosar

irina.slosar@ffg.at

+43 57755 4901

Eurostars in Austria (FFG)

<https://www.ffg.at/programme/eurostars-2>

Austrian Eurostars National Project Coordinator

Olaf Hartmann

T +43 5 7755 4902

olaf.hartmann@ffg.at

HORIZON 2020 AND PARTNERING

- Public private partnerships
- Public public partnerships



- Through **Joint Technology Initiatives** or other formal structures (Art. 187)
- Through **contractual agreements**, which provide inputs for work programmes
- Only **when criteria met**, e.g. clear commitments from private partners

P2P NETWORKS



The screenshot shows the homepage of the ERA-LEARN 2020 website. At the top left is the ERA-LEARN 2020 logo. To its right is a navigation menu with links: Home, About & Contact, Glossary, Links, Sitemap, and Legal notice. Below the menu is a search bar with the text 'Search ERA-LEARN 2020...' and a 'Search' button. A blue navigation bar contains the following links: P2P networks, Joint calls, Joint activities, H2020 calls, Manuals and tools, GPC, Monitoring and Assessment, Alignment, Publications, and Events. Below this bar, the text 'You are here: Home' is displayed. The main content area is titled 'Welcome to ERA-LEARN 2020' and contains several sections: 1. A paragraph describing ERA-LEARN 2020 as a support action (CSA) funded by Horizon 2020, starting in January 2015, and serving as a support platform for the Public-Public-Partnerships (P2P) community. 2. A 'Public to Public Partnerships (P2Ps)' section explaining that P2Ps align national strategies to overcome fragmentation of public research effort, involving varying degrees of joint effort and integration of national programmes. 3. A 'Public to Public Partnerships (P2Ps) in numbers' section listing: 94 Active Networks, 35 Active Joint Calls, 113 Participating Countries, and 1313 Organisations. 4. A 'Subscribe to the ERA-LEARN newsletter' section with an 'E-Mail' input field and a 'Subscribe' button. 5. An 'Open calls for transnational RTD projects' section featuring a calendar of joint calls launched by P2P networks, with dates 10, 17, 24, and 30 highlighted in red. 6. A 'Latest news' section with three entries: 'Study on Horizon 2020 partnerships available' (01/09/2017), 'Case study on BLUEMED initiative published' (31/08/2017), and 'New case study on the Electronic Components and Systems for European Leadership Joint Undertaking (ECSEL)' (11/08/2017). At the bottom of the page is a blue footer containing the European Union flag and the text: 'ERA-LEARN 2020 has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 645782.'

<https://www.era-learn.eu>

- Through “**ERA-Nets**” for topping up individual calls/actions
(replacing ‘old’ ERA-Net, ERA-Net Plus, INCO-Net, Inno-net)
- Through participation in **joint programmes** between Member States (**Art. 185**)
- Supporting agendas of **Joint Programming Initiatives when in line** with Horizon 2020
- Only **when criteria met**, e.g. financial commitments of participating countries

CONTACT

Ralf König

Austrian Research Promotion Agency
Sensengasse 1
A-1090 Vienna
www.ffg.at

Tel.: +43 (0)57755 - 4601
email: ralf.koenig@ffg.at

