ISERD

המינהלת הישראלית למו"פ האירופי
Israel-Europe R&I Directorate

HORIZON 2020 AND BEYOND

Talia Passiar
Head of Sector and National Contact Point (NCP)
Secure Societies

רשות החדשנות
Israel Innovation Authority
Ministry of Science Technology & Space
COUNCIL FOR HIGHER EDUCATION
PLANNING & BUDGETING COMMITTEE

The Israel Innovation Authority

<u>The Different Needs of Israeli Hi-tech Firms Require Different Policies and Tools</u>

Research infrastructure, disruptive technologies

Maintaining a s sufficient deal flow of tech startups and helping them reach fundable milestone

Helping tech firms grow in Israel

Supporting tech solutions for societal and public goals

Pushing the manufacturing industries to a sustainable competitive path

Enabling Israeli technology industry to find its path in the global arena

ISERD – Israel Europe R&I Directorate

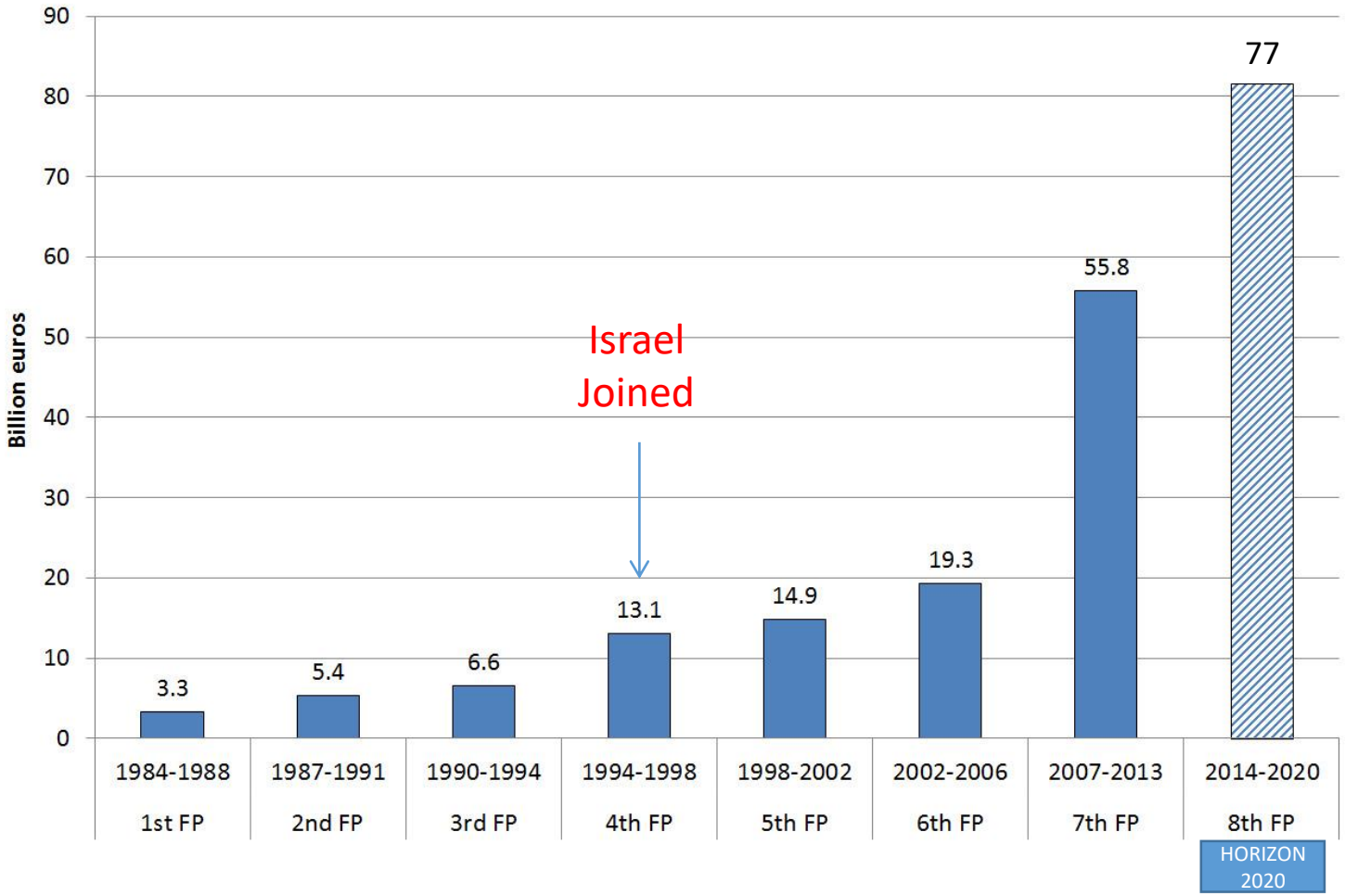
- An **interface** between the Israeli government and the European Union **Encouraging** Israeli entities to participate
- **Representing** Israel in the programme committees of the EC
- **National Contact Point (NCP)** for the different themes
- **Information dissemination**
- **Assistance** throughout projects' submission and management

ISERD aims at maximizing the benefits of Israel's participation in the Framework Programmes (FP)

HORIZON 2020
European Framework Programme

- **EU's main funding instrument for R&D (since 1984)**
- **Goals:**
  - Strengthen the scientific & technological base of European Industry
  - Support EU policies and address major Societal Challenge
  - Create a “European Research Area” (ERA)
- **Covering all major scientific and technological disciplines**
- **Targeting the major European industrial sectors**

Progression of FP Budgets Over Time



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רשות החדשנות Israel Innovation Authority

Ministry of Science Technology & Space

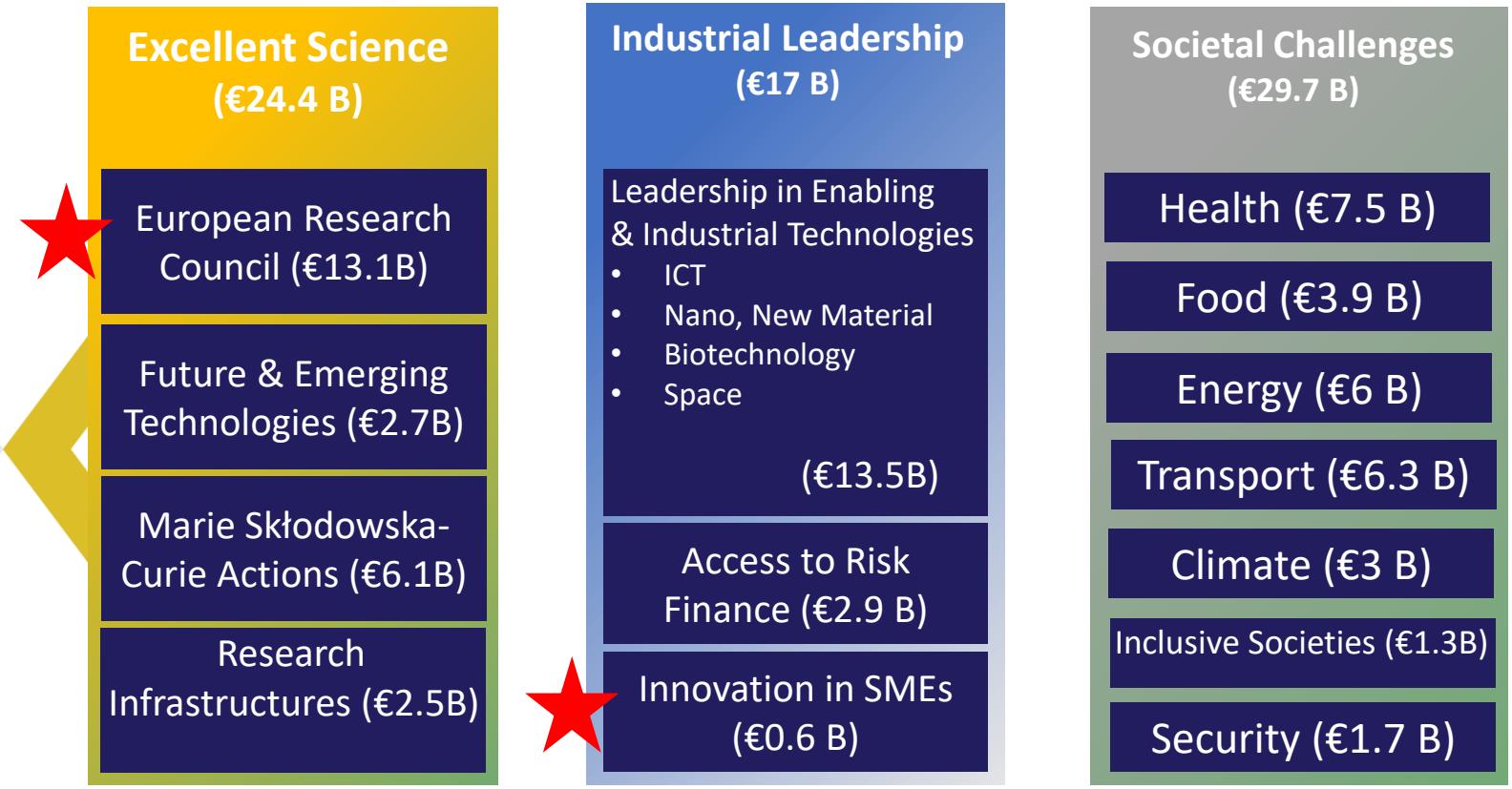
Funding Members of H2020

Conditions for Participation

- **MINIMUM CONDITION,** general rule,
  at least **Three** independent participants
  from **Three** different MS or AC

- **ADDITIONAL CONDITIONS** can be established by the Scientific Programme or Work Programme (number or type of participant, place of establishment)

Horizon 2020 - Structure



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Who can Participate?

- Any undertaking, university or research centre or other legal entity, whether established in a:
  - Member State (MS)
  - Associated country (AC)
  - Third country
- Joint Research Centre (JRC)
- International organisations and participants from third countries - only in addition to the minimal participants required

The Evaluation Criteria

Three main criteria (max. score of 5 in each and 15 total) –

- **Excellence** (relevant to the topic of the call)
  - *Concept, objective, work-plan*
- **Implementation**
  - *Individual participants and consortium as a whole*
  - *Allocation of resources*
- **Impact**
  - *Contribution to expected impacts listed in work programme*
  - *Plans for dissemination/exploitation*

Evaluation Summary Report (ESR)

Proposal Evaluation Form

EUROPEAN COMMISSION

Horizon 2020 - Research and Innovation Framework Programme

Evaluation Summary Report - Coordination and support actions

Call: CIP-2016-2017-1
Funding scheme: IA
Proposal number:
Proposal acronym:
Duration (months):
Proposal title:
Activity: CIP-01-2016-2017

N.	Proposer name	Country	Total Cost	%	Grant Requested	%
1						

Abstract:

Evaluation Result

Total score: 15.00 (Threshold: 10)

Form information

SCORING

Scores must be in the range 0-5.

Interpretation of the score:

- ***0–*** *The* ***proposal fails to address the criterion*** *or cannot be assessed due to missing or incomplete information.*
- ***1– Poor.*** *The criterion is inadequately addressed, or there are serious inherent weaknesses.*
- ***2– Fair.*** *The proposal broadly addresses the criterion, but there are significant weaknesses.*
- ***3– Good.*** *The proposal addresses the criterion well, but a number of shortcomings are present.*
- ***4– Very good.*** *The proposal addresses the criterion very well, but a small number of shortcomings are present.*
- ***5– Excellent.*** *The proposal successfully addresses all relevant aspects of the criterion.Any shortcomings are minor.*

Evaluation Summary Report (ESR)

Criterion 1 - Excellence

Score: **5.00** (Threshold: 3/5.00 , Weight: -)

The following aspects will be taken into account, to the extent that the proposed work corresponds to the topic description in the work programme.
Clarity and pertinence of the objectives

Soundness of the concept, and credibility of the proposed methodology

Extent that 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

Criterion 2 - Impact

Score: **5.00** (Threshold: 3/5.00 , Weight: -)

The following aspects will be taken into account:
The 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

Criterion 3 - Quality and efficiency of the implementation

Score: **5.00** (Threshold: 3/5.00 , Weight: -)

The following aspects will be taken into account:
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 a 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

Types of Action

Action	Funding*	Technology Readiness Level (TRL)	Main Characteristics
RIA – **Research & Innovation Action**	100% + 25%	Low TRL (4-6)	Basic and applied **research**, technology development and integration, **testing** and validation on small-scale prototype in laboratory or simulated environment
IA – **Innovation Action**	70% + 25%	High TRL (6-8)	**Prototyping**, testing, demonstrating, piloting, large-scale product validation and **market replication**
CSA - **Coordination & Support Action**	100% + 25%		**Networking**, coordination or **support services**, policy dialogues and mutual learning exercises and studies

* Non profit – always 100%

Technology Readiness Level

- TRL 1 – basic principles observed
- TRL 2 – technology concept formulated
- TRL 3 – experimental proof of concept
- TRL 4 – technology validated in lab
- TRL 5 – technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies)
- TRL 6 – technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies)
- TRL 7 – system prototype demonstration in operational environment
- TRL 8 – system complete and qualified
- TRL 9 – actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space)

Eligible Costs

- Actual costs (personnel or other)
- Incurred during duration of project
- In accordance with the beneficiary's usual accounting
- Recorded in the accounts of beneficiary
- Used for achieving the objectives of the project

No	Participant	Country	(A) Direct personnel costs/€	(B) Other direct costs/€	(C) Direct costs of sub-contracting/€	(D) Direct costs of providing financial support to third parties/€	(E) Costs of inkind contributions not used on the beneficiary's premises/€	(F) Indirect Costs / € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs / €	(H) Total estimated eligible costs / € (=A+B+C+D+F +G)	(I) Reimburse-ment rate (%)	(J) Max.EU Contribution / € (=H*I)	(K) Requested EU Contribution/ €
	Total		0	0	0	0	0	0,00	0	0,00		0,00	0,00

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Payment

- **One pre-financing –** Usually at least 30% of the project's approved budget (max. amount is the total grant divided by the number of periods minus 5%)
- **Interim payments -** Based on financial statements submitted at the end of the period
- **Final payment -** Retention (at least 10%) + Guarantee Fund (5%)

Guarantee Fund

- Participants are **responsible** for carrying out the project jointly and have to carry out the work of a defaulting participants
- **All beneficiaries contribute to the Fund** to insure against losses of a defaulting participant
- **The contribution shall not exceed 5%** of the EC financial contribution due to each participant
- Financial interests generated by the Fund will serve to cover financial risk
- In principle this amount will be reimbursed at the end of the action

Consortium - Legal aspects

- The **GRANT AGREEMENT (GA)** is the legal agreement between the European Commission and the Consortium. It states the amount of the grant and all legal provisions.
- The **DECLARATION OF HONOUR (DoH)** is the declaration submitted to the European Commission that all information about the entity is correct
- The **CONSORTIUM AGREEMENT (CA)** is a document that partners finalize amongst themselves which allows them to define in detail the administrative and management provisions necessary to carry out their project. The European Commission is not part of this agreement

IPR – Intellectual Property Rights

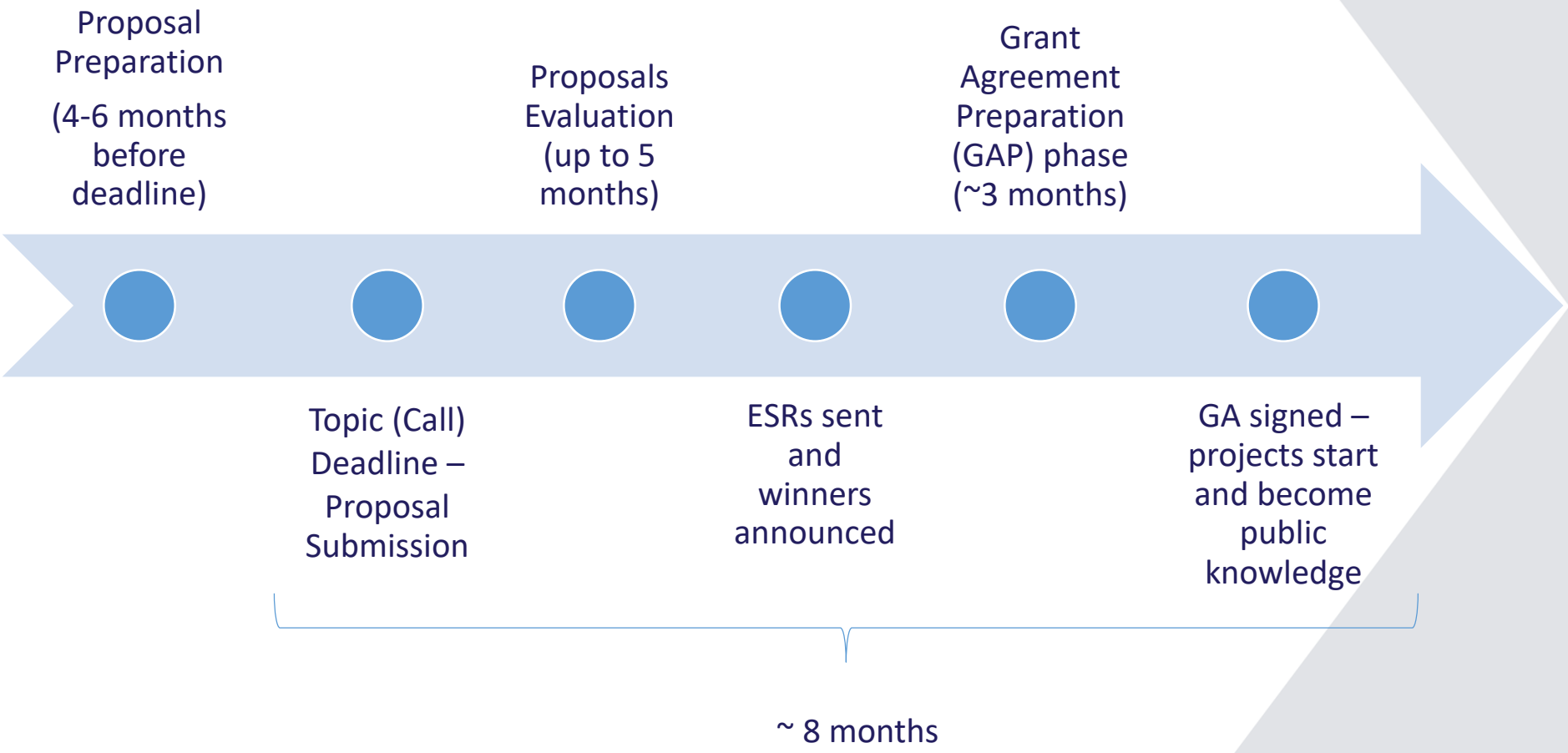
Each participant owns the foreground it generated

JOINT OWNERSHIP: When foreground is generated jointly – the joint owners must reach an agreement IN WRITING

ACCESS RIGHTS:

- Granting licenses and user rights to another participant's results or background. Beneficiaries can benefit from each other's resources, and consequently take full advantage of the collaboration.
- As established in the Model GA, Access rights to another beneficiary's results and/or background are only to be granted if the requesting beneficiary needs such access in order to carry out its part of the project or to exploit its own results.
- In order for the beneficiaries to exercise their access rights, this must be requested in writing.

Submission Timeline



Israeli Results in H2020 To Date

Submitted Participations		12,159
Successful Participations		1,725
Success by sector:	Industry	744
	Universities	849
	Others	132
Submitted Proposals		10,519
Successful Proposals		1,420
Success Rate		13.5%
Value of Israeli grants: 1.06 B€	Industry	349 M€
	Universities	690.7 M€
	Others	22 M€

*H2020 Dashboard, 22.06.2020

How to Proceed?

- Contact ISERD representative
- Read the Work Programme/s (WP) carefully
- Get familiar with the Funding and Tenders Portal
- Identify the subject/s of your expertise/interest in the WP
- Verify that the relevant call is open
- Check for “best fit” topic/s

Horizon 2020 - Work Programme 2018-2020
Secure societies - Protecting freedom and security of Europe and its citizens

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Call - Protecting the infrastructure of Europe and the people in the European smart cities **9**

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SU-INFRA02-2019: Security for smart and safe cities, including for public spaces 12

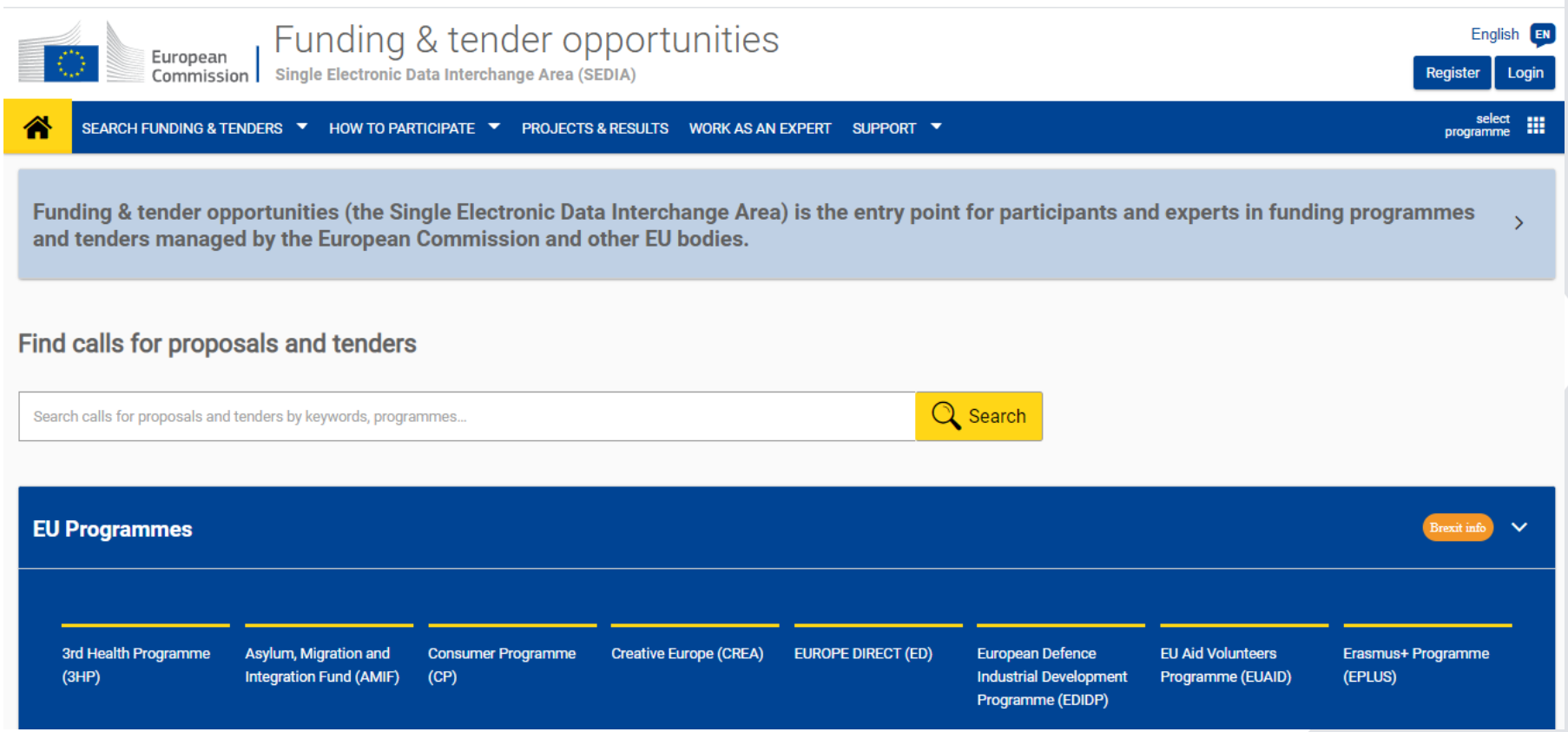
Conditions for the Call - Protecting the infrastructure of Europe and the people in the European smart cities **15**

Call - Security **18**

Disaster-Resilient Societies **18**
SU-DRS01-2018-2019-2020: Human factors, and social, societal, and organisational aspects for disaster-resilient societies 19
SU-DRS02-2018-2019-2020: Technologies for first responders 22
SU-DRS03-2018-2019-2020: Pre-normative research and demonstration for disaster-resilient societies 24
SU-DRS04-2019-2020: Chemical, biological, radiological and nuclear (CBRN) cluster 25
SU-DRS05-2019: Demonstration of novel concepts for the management of pandemic crises 26

Fight against Crime and Terrorism **28**
SU-FCT01-2018-2019-2020: Human factors, and social, societal, and organisational aspects to solve issues in fighting against crime and terrorism 28
SU-FCT02-2018-2019-2020: Technologies to enhance the fight against crime and terrorism

Funding and Tenders Portal



Know Your Topic

- Topic title
- The challenge a solution is needed for
- Expected budget
- Expected impact of your project
- Type of action

SU-INFRA01-2018-2019-2020: Prevention, detection, response and mitigation of combined physical and cyber threats to critical infrastructure in Europe

Specific Challenge: Disruptions in the operation of our countries' critical infrastructure may result from many kinds of hazards and physical and/or cyber-attacks on installations and their

Indicative budget: The Commission considers that proposals requesting a contribution from the EU of about EUR 7 to 8 million would allow this topic to be addressed appropriately. Nonetheless this does not preclude the submission and selection of proposals requesting other amounts

Expected Impact:

- Creation of dedicated, harmonised, advance cybersecurity solutions for smart cities adopting common approaches with all involved stakeholders (e.g. administrators of smart city/port/transport) balancing their – sometimes conflicting – goals (e.g. urban development, efficiency, growth, competitiveness, resilience).
- In situ demonstrations of efficient and cost-effective solutions to the largest audience, beyond the project participants.

Type of Action: Innovation action

Next Steps

Idea: Do you fit into the topic description ?

Form a Consortium:

- Use your network
- Use your National Contact Point (NCP)
- Matchmaking events
- Identify the European leading groups in the field
- Search Previously funded projects

Write a Proposal:

You can get help from:

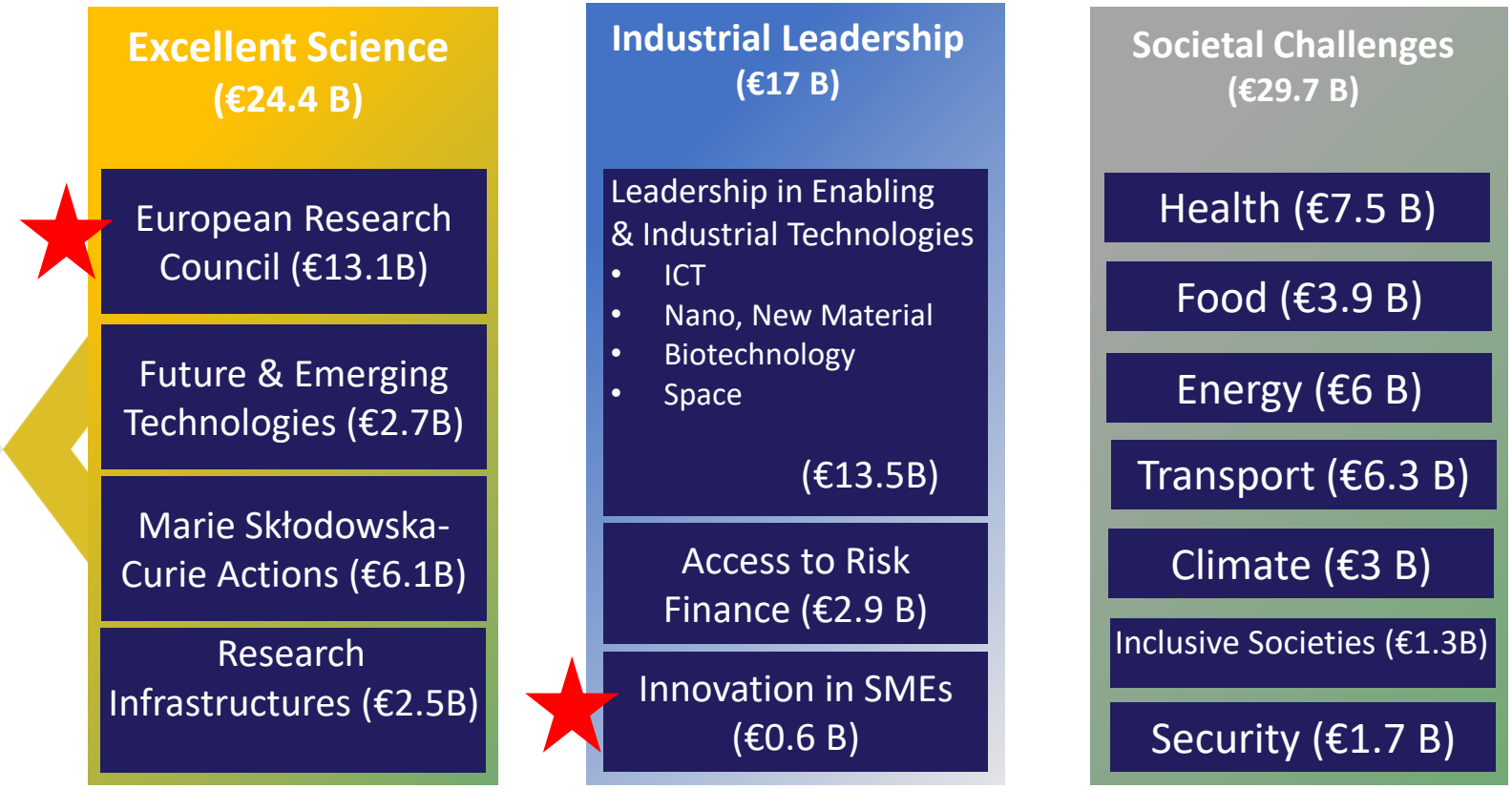
- National Contact Point
- Horizon 2020 Online Manual
- Experienced colleagues
- Consultants

Parallel Process!

Prepare and Submit a Proposal

1. **Find a call topic** relevant to your field of expertise
2. **Find partners** (& If you will lead and coordinate or join others)
3. **Write & submit a proposal** before deadline

Horizon 2020 - Structure



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EIC Accelerator Pilot

How does the Accelerator work?

For developing and scaling up **high-risk innovations**

Grant funding of **up to €2.5 million** – 70% of costs

All funding is open – **no predefined thematic areas**

Option of an equity investment of **up to €15 million**

Access to EIC **coaching and mentoring services**, pitches with corporates, VCs, etc.

EUROPEAN INNOVATION COUNCIL eic

The EIC Accelerator pilot

ACCELERATOR: Start-ups, SMEs and entrepreneurs

For the best of the best:

- Open to SMEs/start-ups anywhere in Europe, in any field, at any time
- Highly competitive (~4% of applications funded so far)
- Selection by leading experts, innovators and investors

Founder friendly:

- Non-dilutive grant funding and non-intrusive equity
- Coaching, mentoring and business acceleration services
- Access to further finance, knowledge and commercialisation partners

For disruptors:

- High-risk, high-potential innovations that can create new markets
- For risk levels above traditional VCs and bank finance

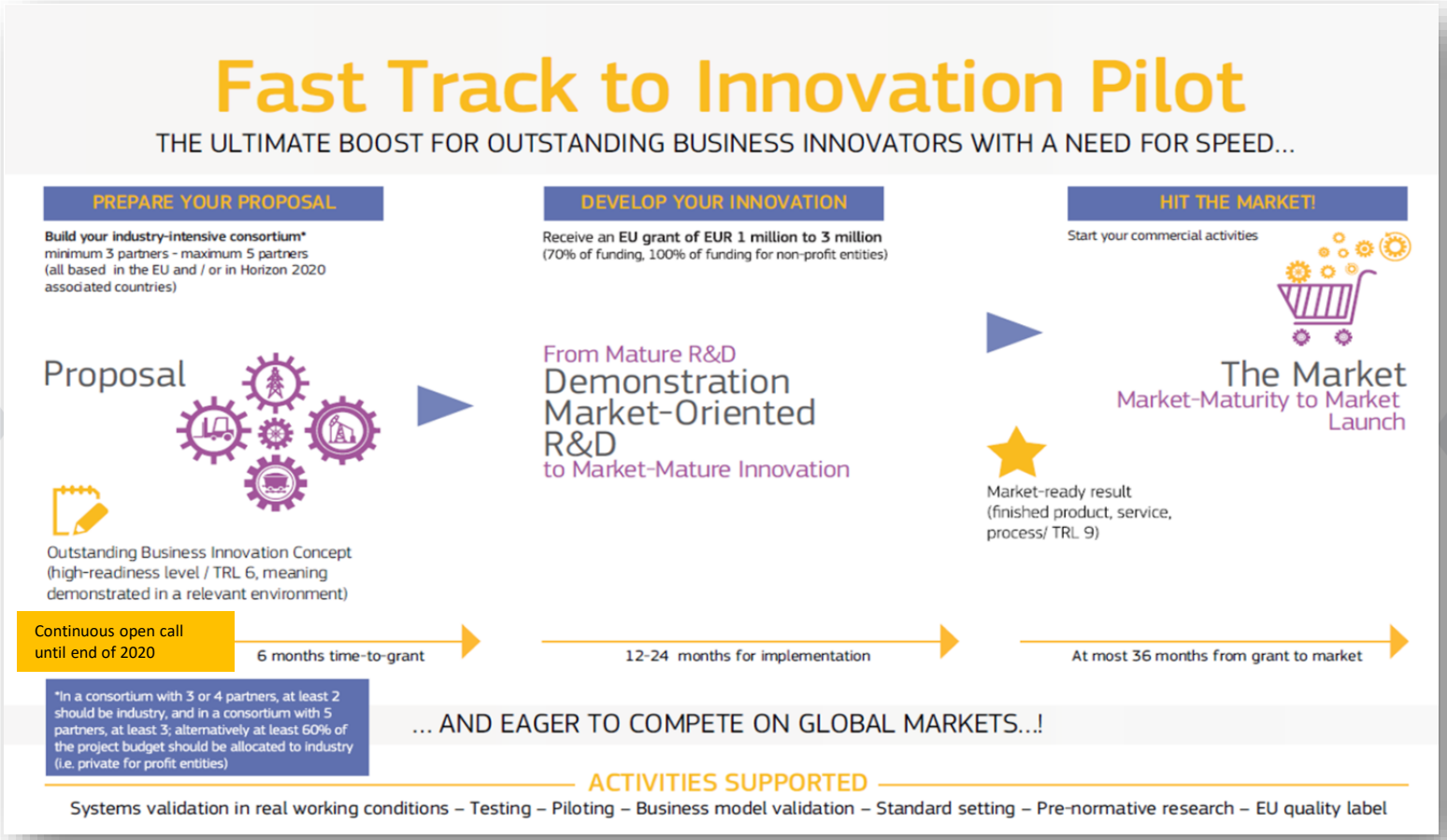
For scale-up potential:

- Innovations that address European & global markets
- Funding of up to €2.5 million (grant) and up to €15 million (equity)

EIC Accelerator Pilot

- **ONLY SMES** allowed to apply for funding support
- Participation of **one SME**
- **BOTTOM-UP** approach
- Continuously open call with **4 CUT-OFF DATES PER YEAR**
- Combination of research, demonstration activities (testing, prototyping,…), market replication, encouraging the involvement of end users or potential clients…
- SME Instrument useful information:
- SME Instrument Funded projects:
- Templates for submission – Phase 2
- All SMEs must fill out a Self Assessment before submission

Fast Track to Innovation (FTI)



Fast Track to Innovation (FTI)

- Follows **bottom-up** logic
- Continuously open call with **3 cut-offs per year**
- Time-to-grant 6 months
- Funds innovation actions (70%)
- Grant up to €3M
- Allows consortia of min. 3, max. 5 members — mandatory industry involvement
- Impact criterion has higher weighting in evaluations
- Sales are expected within 3 years
- All projects should start at TRL 6 and end at TRL 8

ISERD Aid Fund

- **Route 37a** – Provides support to entities from the industry to participate in H2020 topics.

  Eligible reimbursements of 75% of up to 40,000 NIS for – Travel to a PS event, hosting potential partners in Israel, and the cost of a consultant to help write the proposal

- **Route 37b** – Provides **select companies** long term support in H2020.

  Eligible reimbursements of 85% of up to 70,000 NIS over 3 years for – Participation in cPPP, JTI, JU or other initiatives, as well as costs for a consultant to help write the proposal (coordination is expected from the company)

Red Team

"A red team is an independent group that challenges an organization to improve its effectiveness by assuming an adversarial role or point of view."

- Wikipedia

The Red Team service is a national full proposal check -

- It is free of charge
- It uses expert reviewers of the Innovation Authority (some are also H2020 reviewers)
- All reviewers have signed NDA with the Innovation Authority
- The identity of the reviewer is classified
- The full proposal must be submitted **at least a month in advance** of the topic deadline by 10:00
- For EIC Accelerator and FTI –
  - Not eligible if this is a first time submission
  - Limited to twice for each company

Become an Expert Evaluator

Roles: Evaluator, monitor, independent observer

The **benefits** of being an **evaluator**:

- Learning the process and evaluating
- Learning the current thinking and state of the art
- Meeting evaluators from across Europe and themes
- Become part of the community
- Fully electronic process on funding portal
- Confirm availability for Horizon 2020
- Expert rotation

Industrial background / Female candidate might give an advantage

European Commission

Horizon Europe

THE NEXT EU RESEARCH & INNOVATION INVESTMENT PROGRAMME (2021 – 2027)

#HorizonEU

Based on the Commission Proposal for Horizon Europe, the common understanding between co-legislators and the Partial General Approach, both approved in April 2019

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Israel Innovation Authority

Ministry of Science Technology & Space

Horizon Europe - Goals

The ambitious EU research and innovation framework programme (2021-2027)

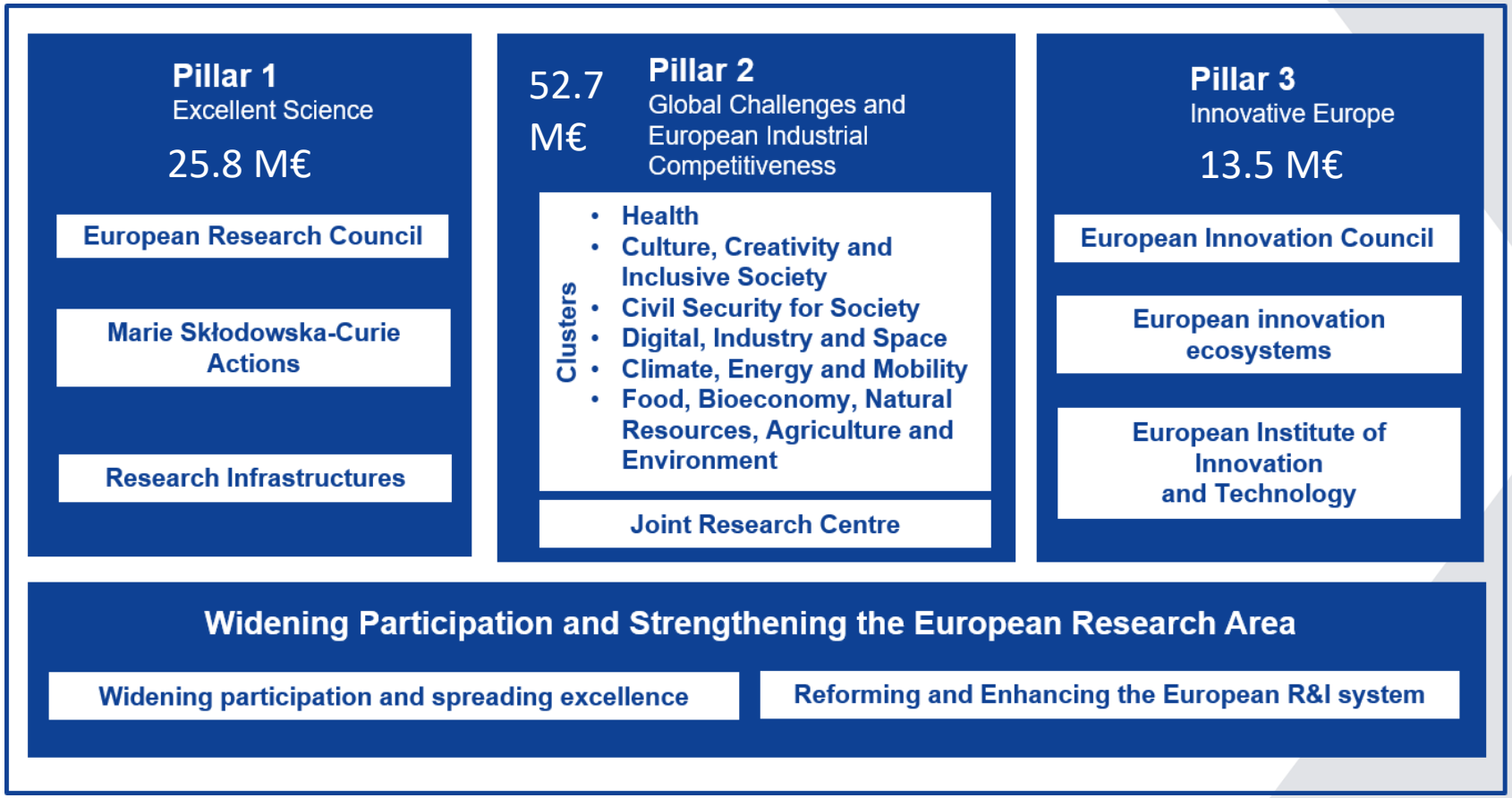
to strengthen the EU's scientific and technological bases
and the European Research Area (ERA)

to boost Europe's innovation capacity, competitiveness and jobs

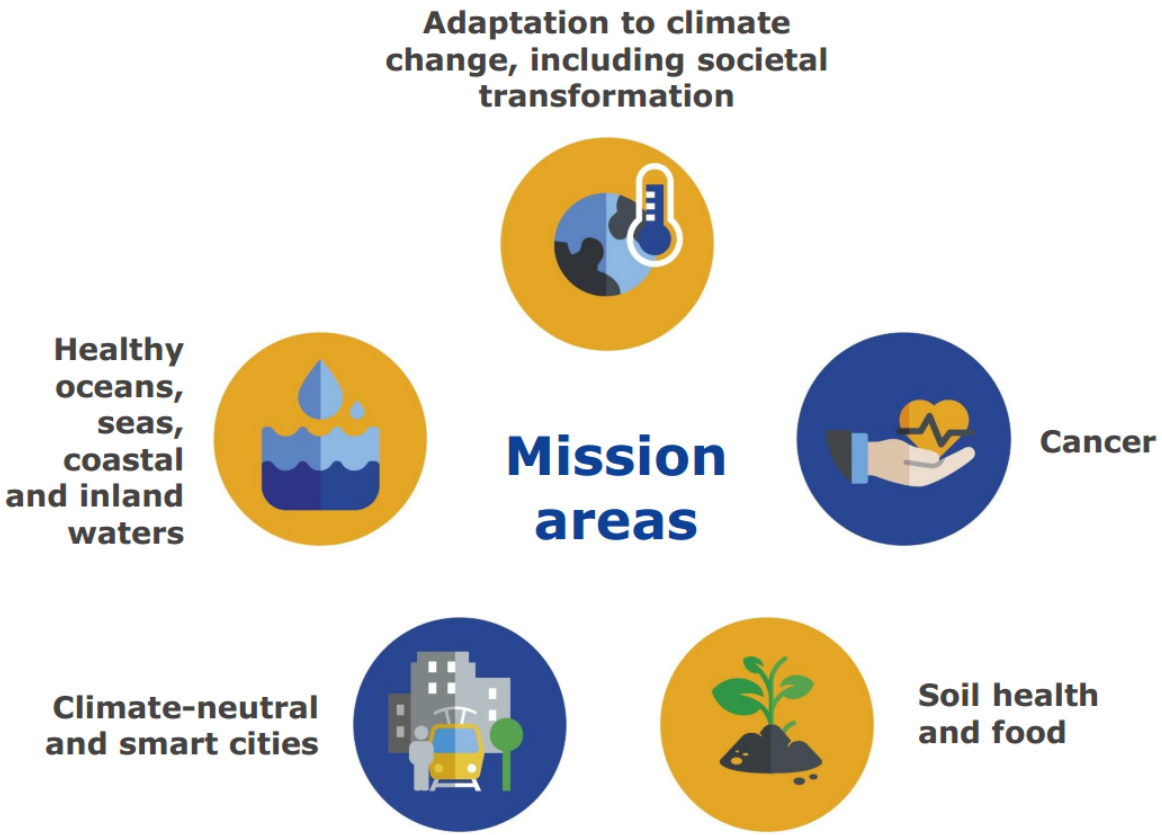
to deliver on citizens' priorities and sustain our socio- economic model and values

The Commission proposes a budget of € 100 billion for HE

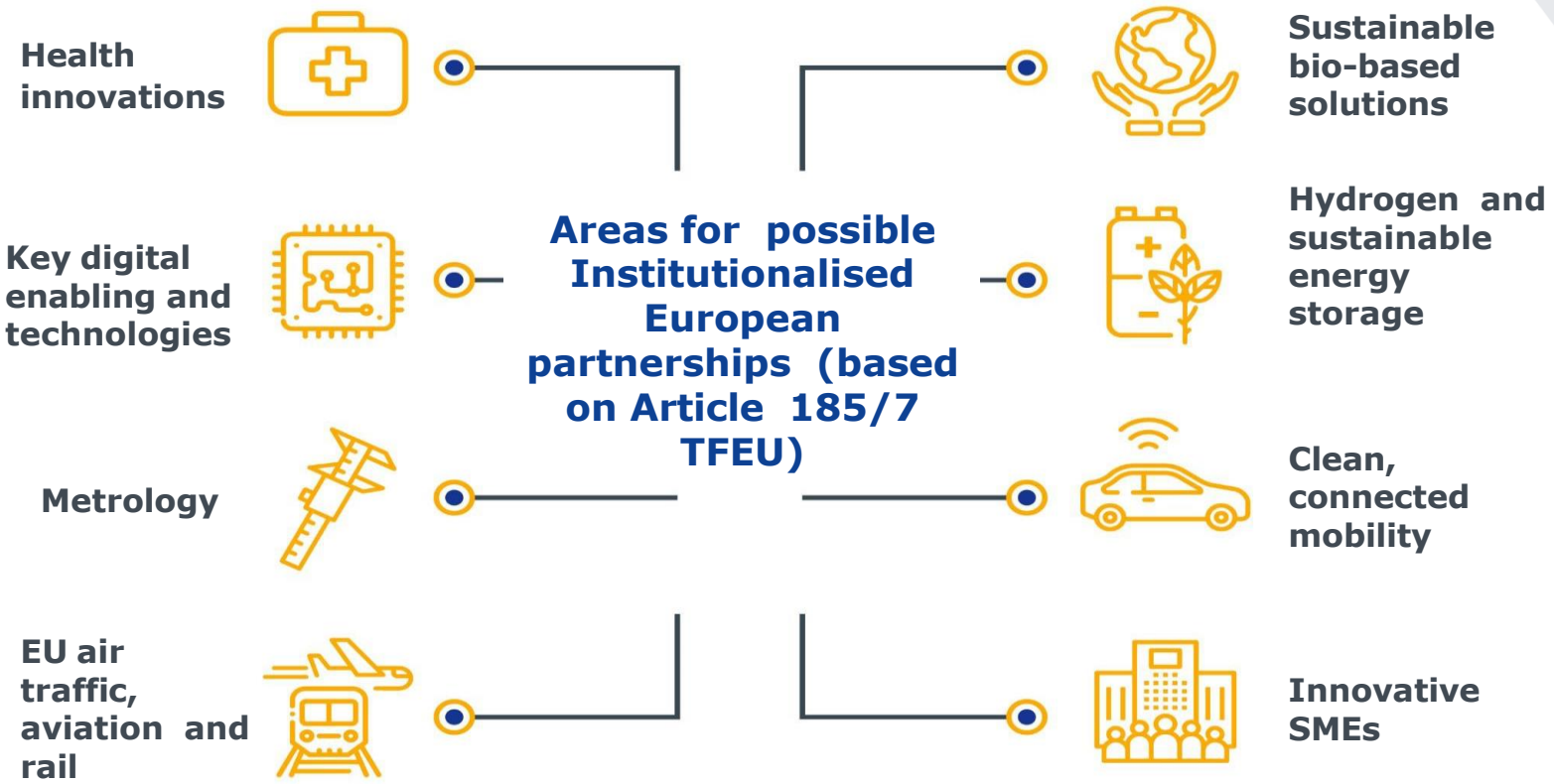
Horizon Europe (2021-2027)



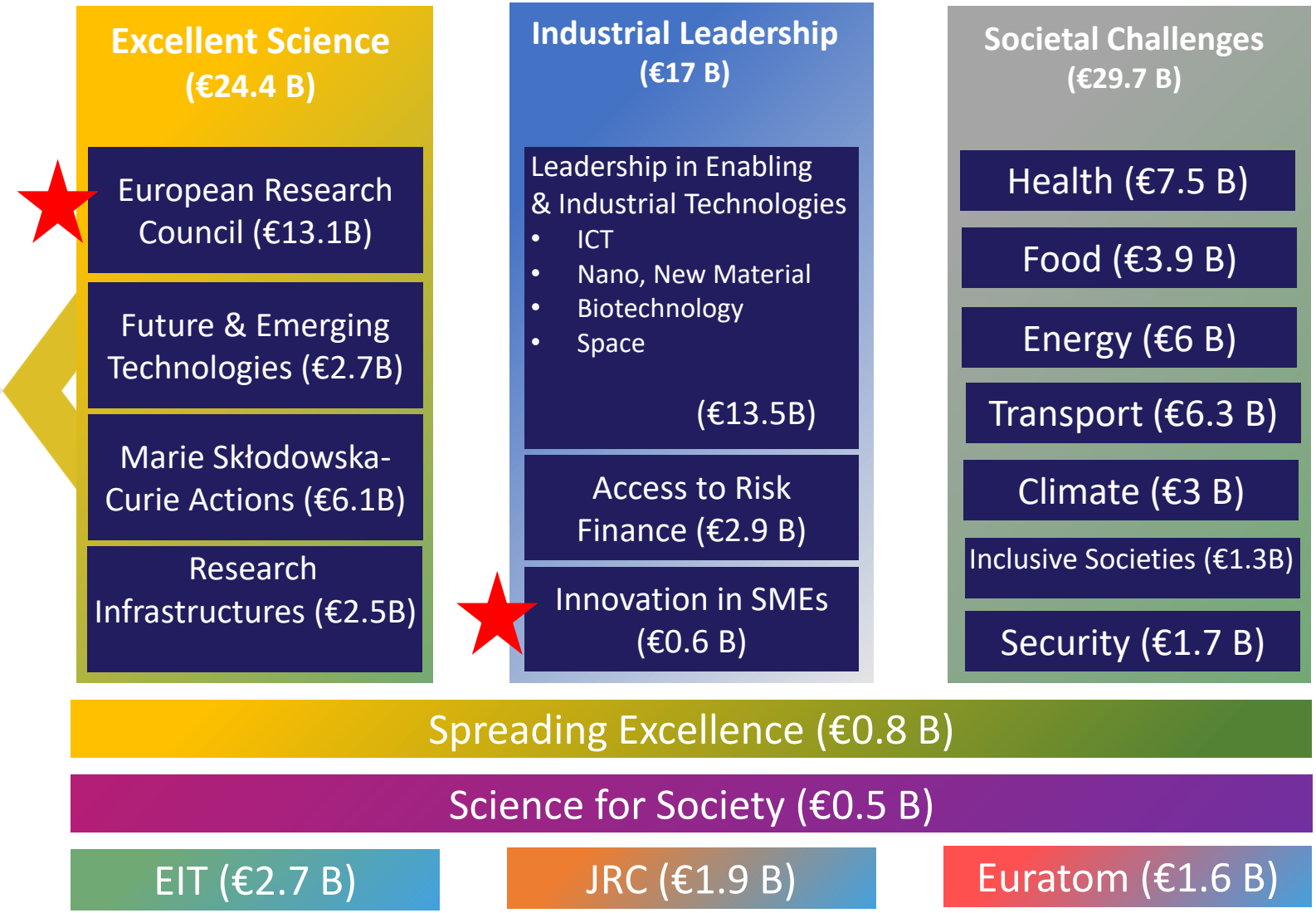
Horizon Europe - Missions



New Approach to European Partnerships



Horizon 2020 – Remaining Calls



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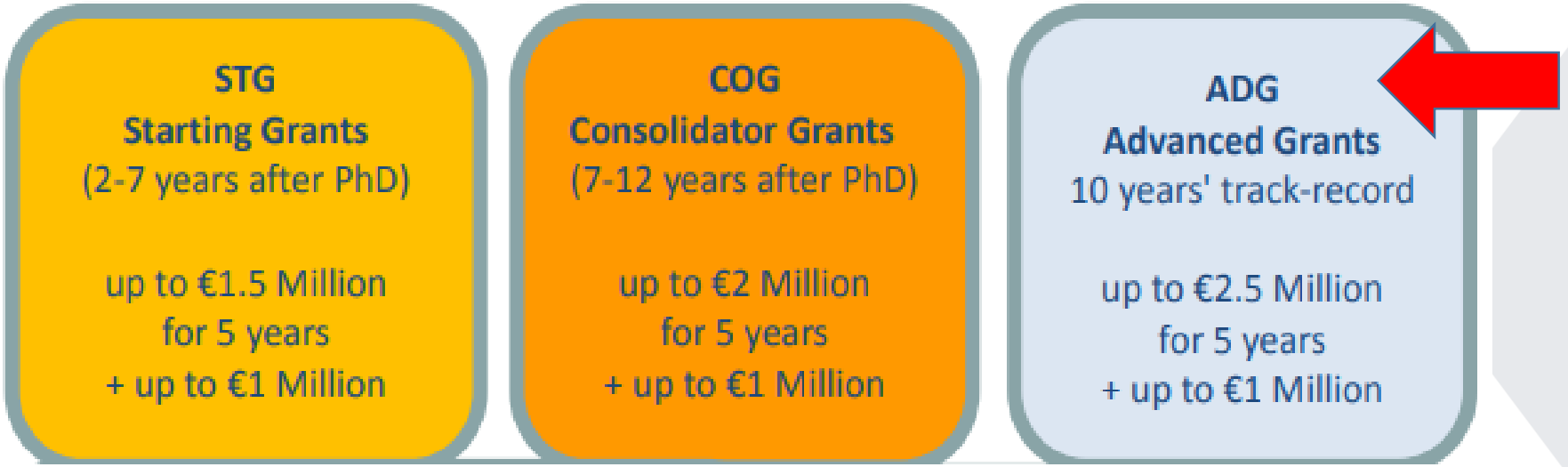
European Research Council (ERC)



Deadline:
26/08/2020

Future and Emerging Technologies (FET)

FET Open - Novel ideas for radically new technologies

FET Proactive – High performance computing

FET Proactive – Boosting emerging technologies

FET Flagship - Tackling grand interdisciplinary science and technology challenges

Deadline:
OPEN – 14/10/2020

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Marie Skłodowska-Curie

1 Innovative Training Networks (ITN):

Joint research training or doctoral programmes bring together universities, research institutes and other sectors from across the world to train researchers to doctorate level and develop excellent doctoral programmes.

2 Individual Fellowships (IF):

Fellowships for postdoc researchers of any nationality enabling them to move across borders within and outside Europe, sectors and disciplines.

3 Research and Innovation Staff Exchanges (RISE):

Short-term exchanges of personnel between universities, research institutes and other sectors throughout the world.

4 Co-funding of regional, national and international programmes (COFUND):

Provides organisations in Europe with financial support for their own doctoral, postdoctoral and career development programmes.

5 The European Researchers' Night (NIGHT):

Annual public event promoting research that takes place in September and attracts 1.5 million visitors in over 370 cities across Europe and beyond.

Deadline:
IF – 09/09/2020
CO-FUND - 29/09/2020

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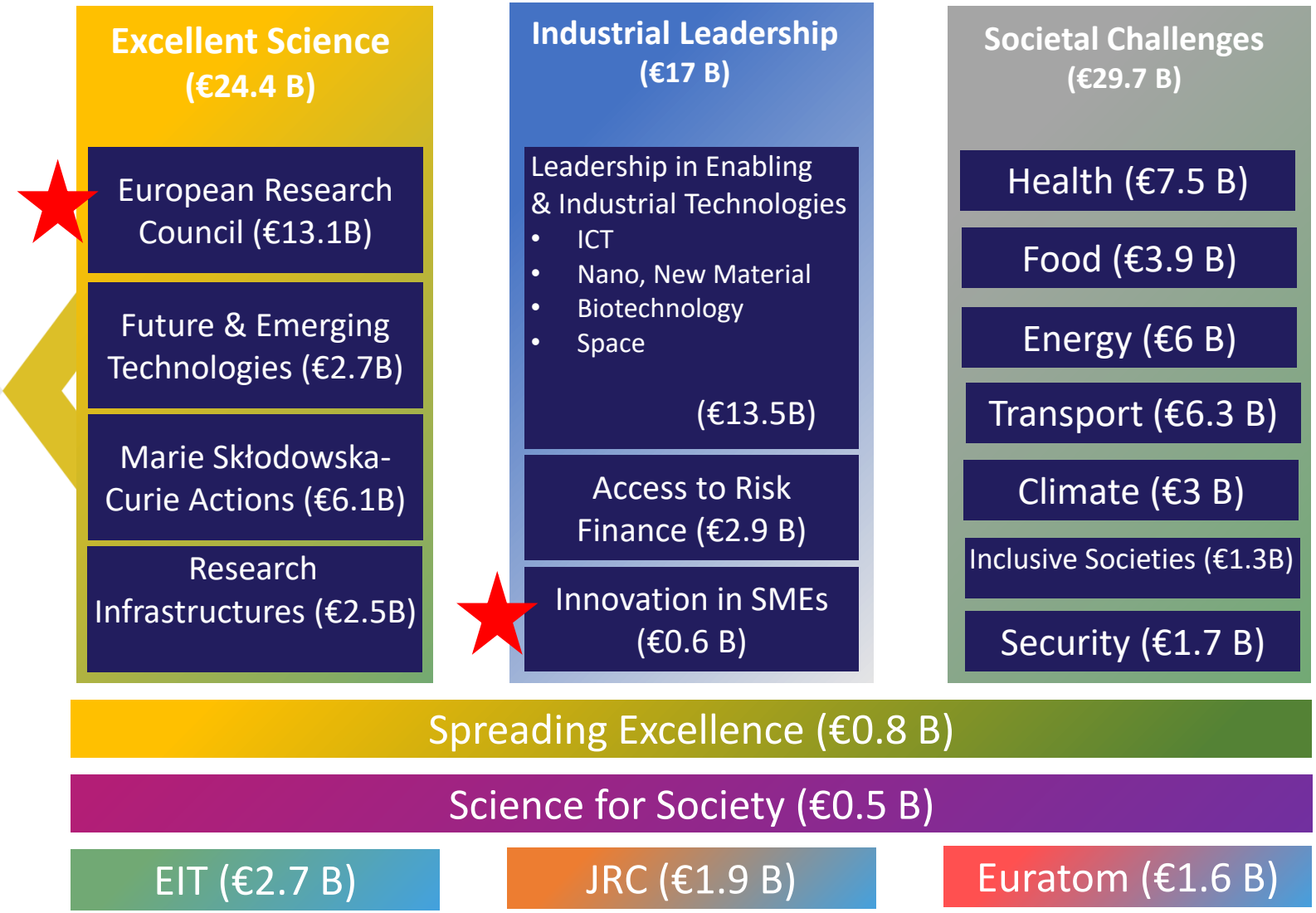
Horizon 2020 – Remaining Calls



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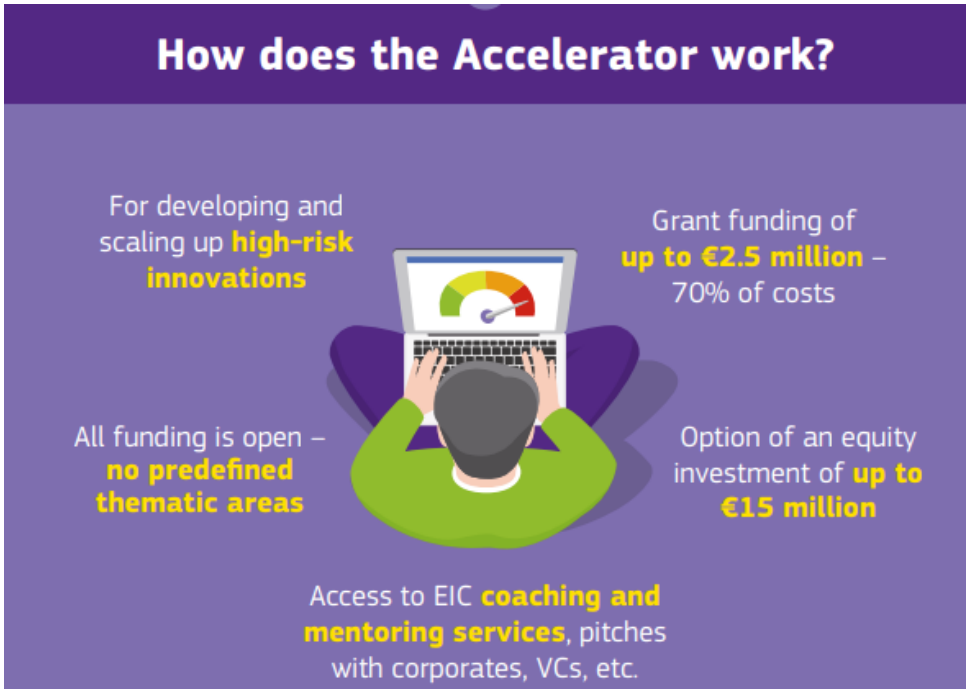
EIC Accelerator Pilot



- Interview week – 16-20/11/2020
- Emphasis on women led companies (CEO or equivalent)

Deadline:
07/10/2020

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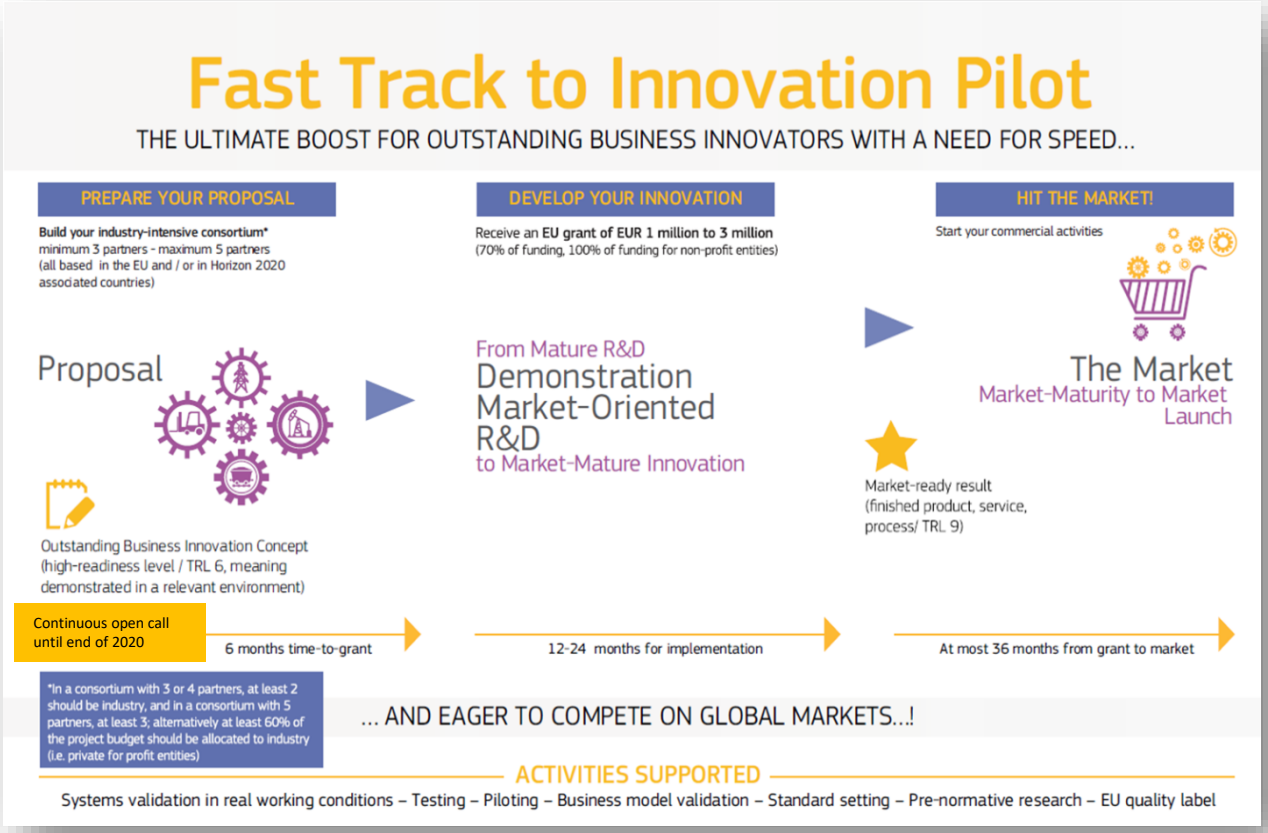

Deadline:
27/10/2020

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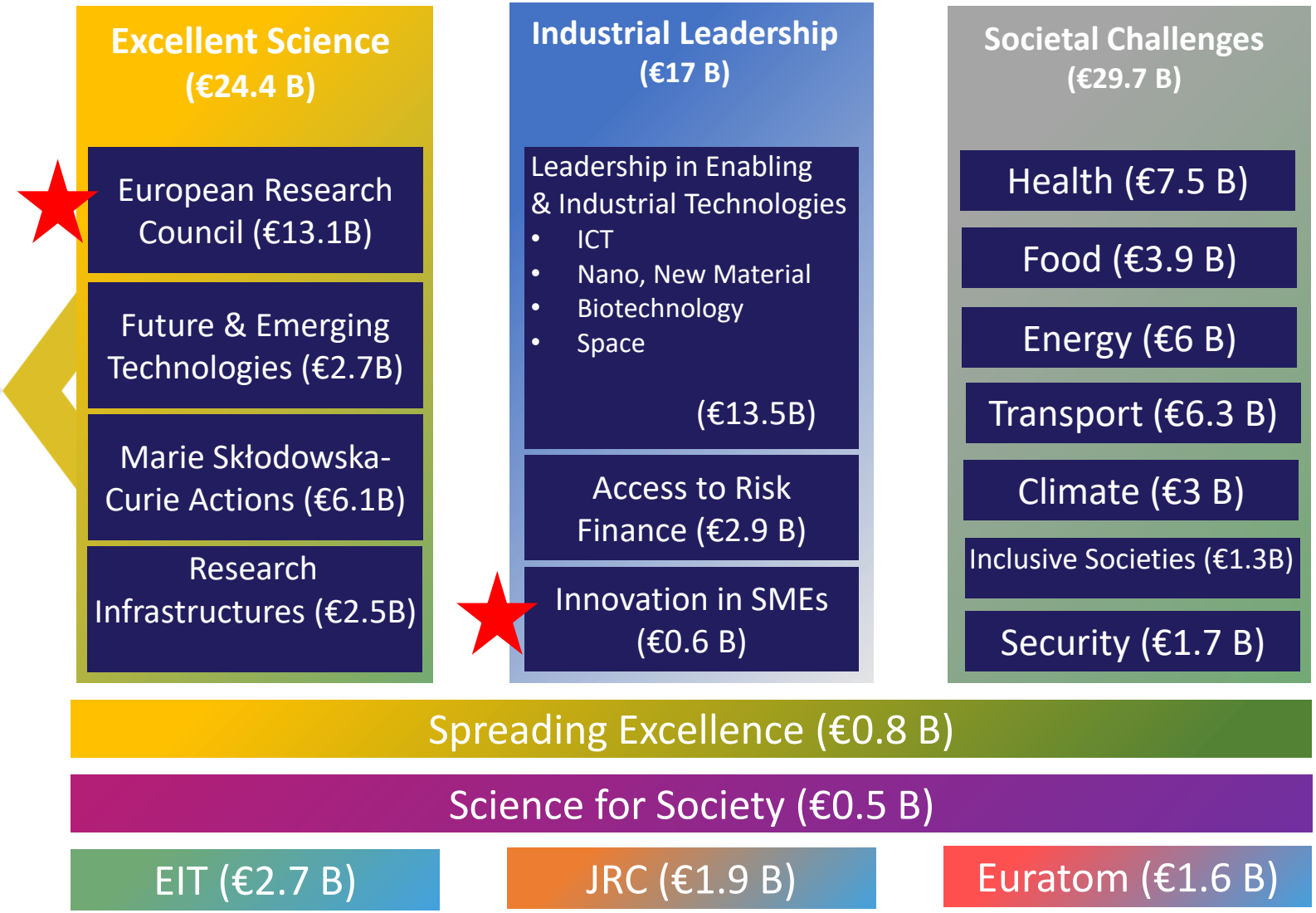

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Israel-Europe R&I Directorate

Secure, Clean and Efficient Energy

- Smart citizen-centred energy system (ES)
- Enabling near-zero CO2 emissions from fossil fuel power plants and carbon intensive Industries (NZE)
- Global leadership in renewables (RES)
- Smart Cities and Communities (SCC)
- Buildings in energy transition (B4E)
- Smart and clean energy for consumers (EC)

Deadline:

ES & NZE & RES & SCC – 01/09/2020

B4E & EC - 20/09/2020

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Secure Societies

SEC
Security

INFRA (€15 M)
Protecting Infrastructures

- Cyber- & physical security to critical infrastructures

AI (€20 M)
Artificial Intelligence

- AI capacities and technologies

DS (€68.8 M)
Digital Security

- Cyber-security
- Privacy and Data Protection

DRS (€39 M)
Disaster-Resilient Societies

- Human factors
- Technologies
- Prenormative Research
- CBRN, pandemics

FCT (€55 M)
Fight against Crime and Terrorism

- Human factors
- Technologies
- Data management

BES (€36 M)
Borders and External Security

- Human factors
- Technologies
- Demo of solutions

Deadline: 27/08/2020

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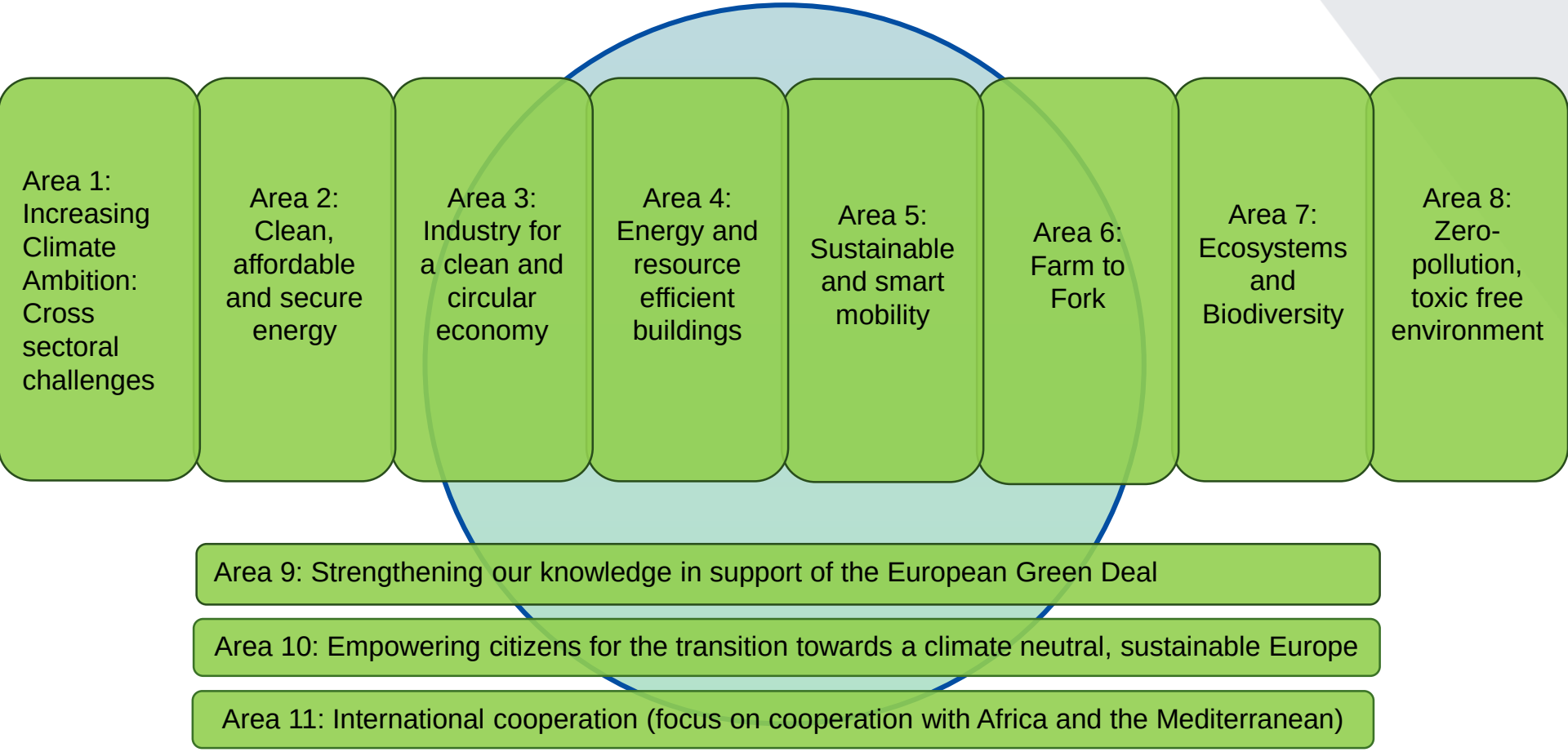
Green Deal



Deadline: 01/2021

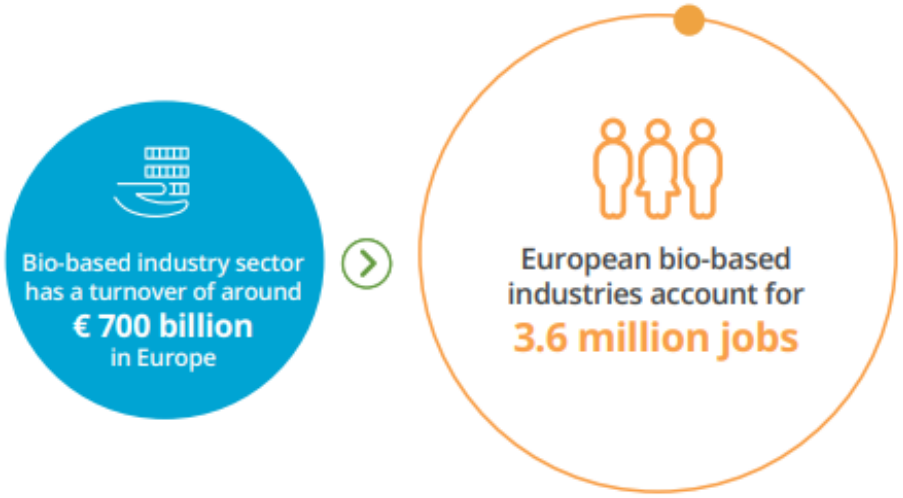
Additional Calls

Aside from Horizon 2020 there are at times additional calls for proposals –

- Joint Undertakings (JU) – Partnerships with the industry
- Public-Private Partnerships (PPP) – Long term contracts between a government body and a non-government partner that enable innovative technologies to get to the market faster
- Prizes – Meant to solve major challenges faster

Bio Based Industry Market (BBI)

- Renewable biological resources & conversion to food, feed, and products
- Sustainably-sourced biological raw materials (biomass), as the basic materials for producing bio-based chemicals and materials
- Biorefineries convert biomass to bio-based products, such as feed, fibres, materials, and chemicals



Deadline: 03/09/2020

Innovative Medicine Initiative (IMI)

- Improve the medicines development process and make it more efficient
- Ensure that patients will have faster access to better and safer medicines
- Finding innovative solutions to the most pressing medical burdens of our time, including antimicrobial resistance, dementia, and diabetes

Deadline: 29/09/2020

Prizes

Deadline: 01/09/2020

Deadline: 03/02/2021

Deadline: 01/06/2021

Deadline: 03/02/2021

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Reach out to Our Team for more information

We hope to hear from you soon

Good luck!

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