





# European Research Council (ERC) & Marie Sklodowska- Curie Actions (MSCA) in Horizon Europe

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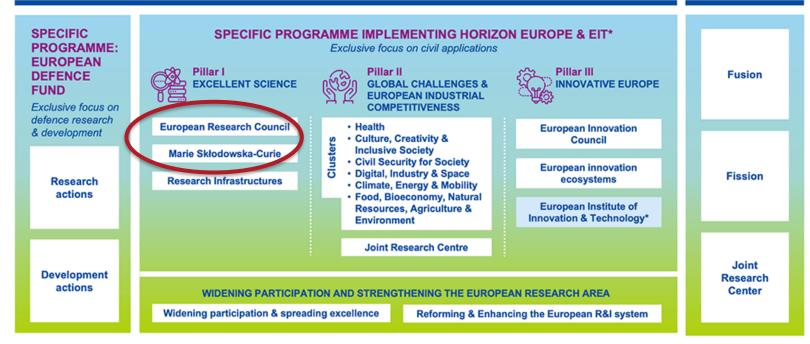
Διαδικτυακό Σεμινάριο Εθνικό και Καποδιστριακό Πανεπιστήμιο Αθηνών Δευτέρα, 14 Ιουνίου 2021



# ERC & MSCA in Horizon Europe

#### **HORIZON EUROPE**

#### **EURATOM**



<sup>\*</sup> The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme





# **ERC** in Horizon Europe



# The ERC: an Ambition for Science in Europe



#### Mission: To raise the level, dynamism and creativity of the whole European research system by:

- Supporting the emergence of research leaders;
- Improving the career prospects of early stage researchers;
- Providing a benchmark for all of Europe's national research authorities and individual institutions.



# The ERC Governance and Strategy



### **Scientific Governance**

- Independent Scientific Council with 22 members including the ERC President with full authority over funding strategy and evaluation
- Support by a Dedicated Implementation Structure (ERC Executive Agency)

### **Scientific Freedom**

- Scientific quality as the only criterion for selection
- Support to the individual scientist no consortia!
- No predetermined subjects (bottom-up)
- Support to Frontier Research in all fields of Science and Humanities
- International peer-review



# The Scientific Council



**European Research Council** 

Established by the European Commission





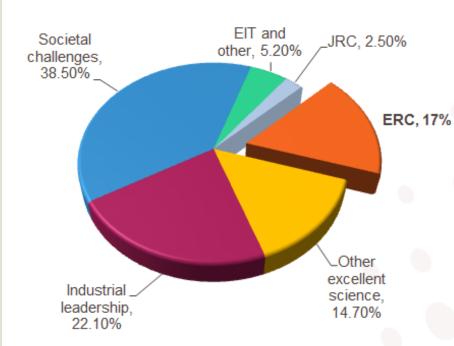




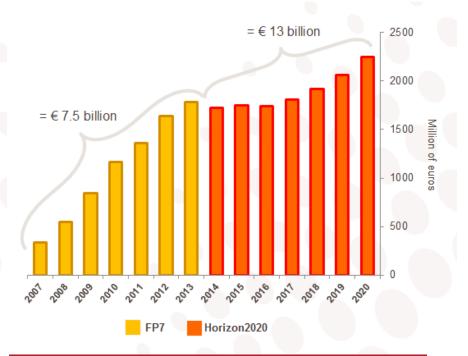




# Horizon 2020 budget distribution



# **ERC** budget per year





# ERC is part of Horizon Europe









17%
of the entire
Horizon Europe budget



# After More than 10 Years, a Success Story





Over **10,000** top researchers funded since the ERC's creation in 2007



Over **180,000** articles from ERC projects published in prestigious scientific journals



Over **75,000** researchers and other professionals employed in ERC research teams



> 800 research institutions hosting ERC grantees – universities, public or private research centres in the EU or associated countries



€ 13 billion

ERC budget for 2014-2020 under Horizon 2020

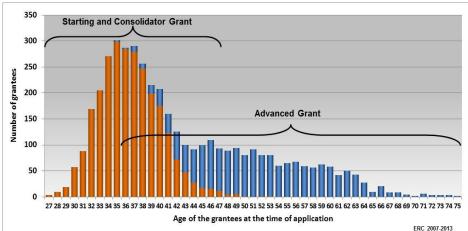


nationalities of grant holders



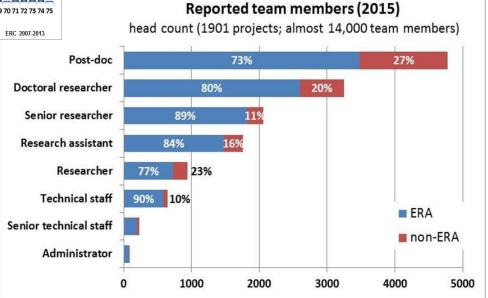
# Priority to Young Scientists





> 45 000 PhD and post-doc researchers working in ERC teams

Two-thirds of ERC grants to early-stage
Principal Investigators





# ERC grants provide independence, recognition & visibility



Frontier of science, scholarship and engineering, i.e.

- Multi-or interdisciplinary proposals which cross boundaries between different fields of research, or
- > Pioneering proposals addressing new and emerging fields of research,

Or

Proposals introducing unconventional, innovative approaches and scientific inventions.



# **ERC** funding schemes





# **Starting Grant**

Size of the grant: up to €1.5 million + up to €1 million

Duration: up to 5 years

2-7 years of experience since completion of their PhD



#### **Consolidator Grant**

Size of the grant: up to €2 million + up to €1 million

Duration: up to 5 years

7-12 years of experience since completion of their PhD



#### **Advanced Grant**

Size of the grant: up to €2.5 million + up to €1 million

Duration: up to 5 years

An excellent scientific track record of recognized achievements in the last 10 years







# Synergy grant

Size of the grant: €10 million + up to €4 million

Duration: up to 6 years

Be composed of 2 to 4 researchers and their research groups

(one researcher can be based outside EU/AC)



### **Proof of Concept**

Size of the grant: €150 000

Duration: up to 18 months

Demonstrate that the idea funded by the original ERC grant has innovation potential and significant economic or societal benefits





Extensions of eligibility window possible for StG and CoG for documented cases of:

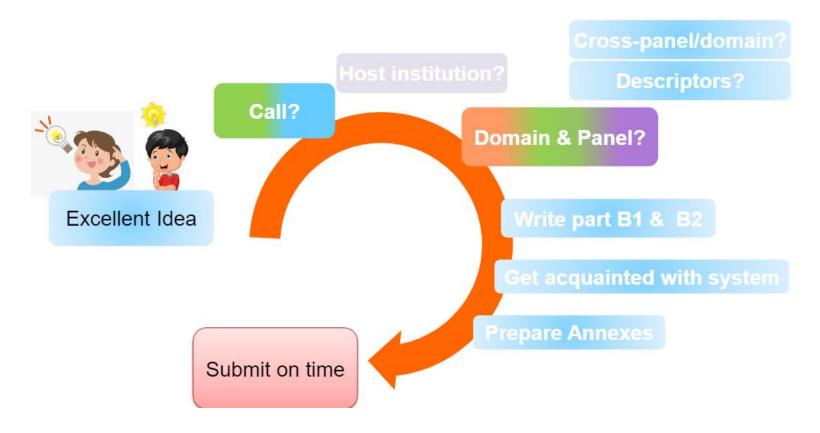
- ▶ Maternity -18 months per child (before or after PhD)
- Paternity –actual time taken off
- Military service
- Medical specialty training
- Caring for seriously ill family members

No limit to the total extension



# Submitting an ERC proposal







# **ERC Panel structure**



#### Life Sciences (LS)

- LS1 Molecules of Life: Biological Mechanisms, Structures and **Functions**
- LS2 Integrative Biology: from Genes and Genomes to Systems
- LS3 Cellular, Developmental and Regenerative Biology
- LS4 Physiology in Health, Disease and Aging
- LS5 Neuroscience and Disorders of the Nervous System
- LS6 Immunity, Infection and Immunotherapy
- LS7 Prevention, Diagnosis and Treatment of Human Diseases
- LS8 Environmental Biology, Ecology and Evolution
- LS9 Biotechnology and Biosystems Engineering

3 Domains / 27 Panels

### Social Sciences and Humanities (SSH<sup>European Research Council</sup>

Established by the European Commission

- SH1 Individuals, Markets and **Organisations**
- SH2 Institutions, Governance and Legal Systems
- SH3 The Social World and Its Diversity
- SH4 The Human Mind and Its Complexity
- SH5 Cultures and Cultural Production
- SH6 The Study of the Human Past
- SH7 Human Mobility, Environment, and Space

#### **Physical Sciences & Engineering (PSE)**

- PE1 Mathematics
- PE2 Fundamental Constituents of Matter
- PE3 Condensed Matter Physics
- PE4 Physical & Analytical Chemical Sciences
- PE5 Synthetic Chemistry and Materials
- PE6 Computer Science and Informatics
- PE7 Systems and Communication Engineering
- PE8 Products and Processes Engineering
- PE9 Universe Sciences
- PE10 Earth System Science
- PE11 Materials Engineering





- **Score 'A':** Fully meets the ERC excellence criterion and is recommended for funding if sufficient funds are available.
- ➤ Score 'B': Meets some but not all of the ERC's excellence criterion and will not be funded. If score B is awarded in step 1, PI may not submit a proposal to any call in 2021
- **Score 'C':** Proposal is not of sufficient quality to pass to Step 2 of the evaluation. The applicant may also be subject to resubmission limitations in the next call. PI may not submit a proposal to any call in 2021 and 2022

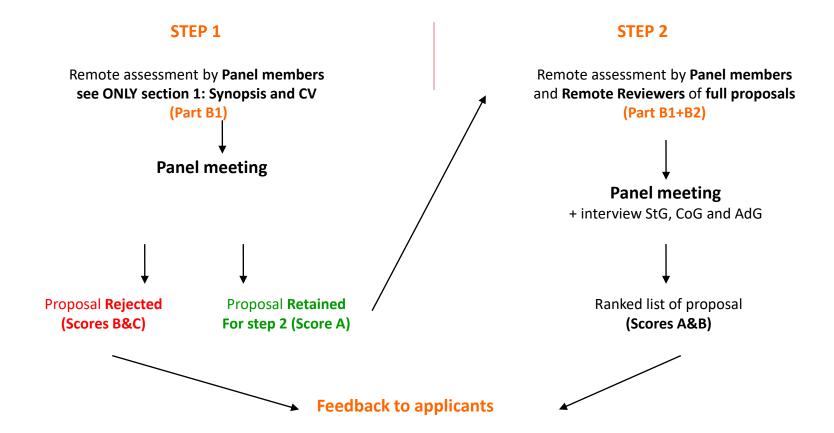


# How are the ERC proposals evaluated



Established by the European Commission

For individuals calls: a single submission but a two step evaluation









# **Excellence** is the sole evaluation criterion

#### Excellence of the Research Project

- Ground breaking nature
- ✓ Potential impact
- ✓ Scientific Approach

#### Excellence of the Principal Investigator

- ✓ Intellectual capacity
- Creativity
- ✓ Commitment



# Typical reasons for rejection



#### **Principal investigator**

- ✓ Insufficient track-record
- ✓ Insufficient (potential for) independence
- ✓ Insufficient experience in leading projects

#### **Proposed project**

- ✓ Scope: Too narrow <--> too broad/unfocussed
- ✓ Incremental research
- ✓ Work plan not detailed enough/unclear
- ✓ Insufficient risk management



# Contrary to what you may think



- ERC funds "frontier research", including applied research.
- The budget is distributed among the scientific panels as a function of demand.
- The panel descriptors do not represent ERC scientific priorities.
- The success rate is virtually flat across the eligibility window (StG, CoG).
- Publication record is not decisive in selection decisions.
- The Host Institution is not an evaluation criterion.







Rumour 1: You can only apply for an ERC grant if you are a highly accomplished scientist.

✗ NOT true: Accomplishments are appreciated in relation to your stage/seniority as giving some evidence of your capacity to conduct the research you propose and of creativity within the past 10-12 years of your career.

Rumour 2: To be successful, you need to continue on an established research line, to prove continuity and credibility

X NOT true: Generally, the opposite is true.

Rumour 3: If you have already obtained an ERC grant you are less/more likely to get another one.

★ NOT true: Panels look at each proposal on its own merit and in comparison with the other applications, irrespectively of whether you have or have not obtained an ERC grant in the past. (Of course this does not apply for applications to a Proof of Concept grant.)

Rumour 4: The more socially or medically relevant a grant proposal is, the higher the chances of it getting funded.

✗ NOT true: ERC funds frontier research, not research that promises to be only an incremental advancement of knowledge. This is irrespective of the field and whether it has societal, medical or clinical applications.



# 2021-2022 Call Calendar



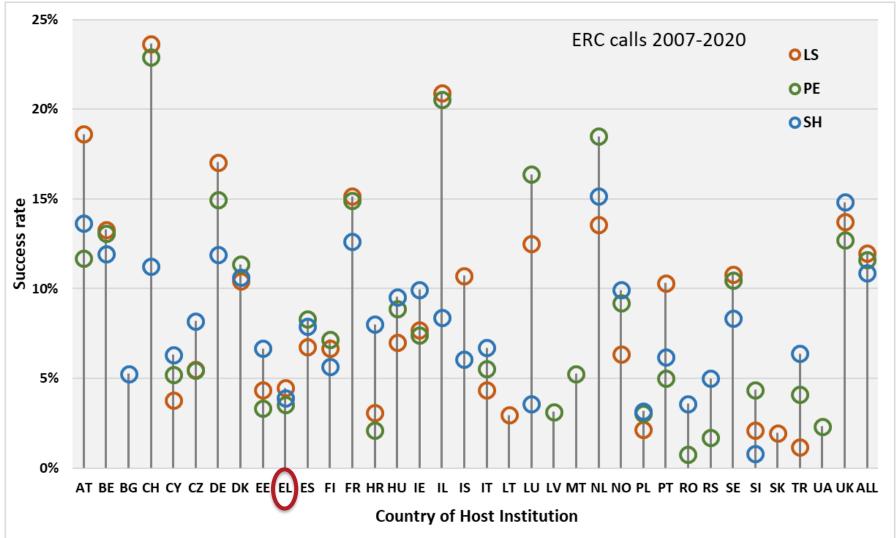
	Starting Grant		Consolidator Grant		Advanced Grant		Synergy Grant
WP	2021	2022	2021	2022	2021	2022	2022
Open	25/02/2021	23/09/2021	11/03/2021	19/10/2021	20/05/2021	20/01/2022	15/07/2021
Closure	08/04/2021	13/01/2022	20/04/2021	17/03/2022	31/08/2021	28/04/2022	10/11/2021
Budget	619 M	757 M	633 M	784 M	626 M	561 M	300 M

	Proof of Concept				
WP	2022	2022			
Open	15/07/2021	16/11/2021			
Cut-off dates or closure	14/10/2021	15/02/2022 19/05/2022 29/09/2022			
Budget	EUR 25 M	EUR 25 M			



# Success Rates by Domain













# Where can you find more information?





#### **Videos - ERC Classes**

- What to consider before applying
- How to fill in the application (Part B1 and B2)
- The interview
- How the evaluation works

https://www.youtube.com/watc h?v=xbFbzkVWgCU&list=PLtv6F nsXqnXAYRk6HCErwMxwML0ZK oMcy





# **MSCA** in Horizon Europe



# Doctoral Networks

Doctoral programmes in and outside academia incl. joint & industrial doctorates

# Postdoctoral Fellowships

Support to excellent postdoctoral researchers

### **Staff Exchanges**

Support for research and innovation staff exchanges

#### **COFUND**

Co-funding doctoral and postdoctoral programmes

# MSCA and Citizens

Public outreach events (Night)



#### **Key features**

Multi-beneficiary Action to set up **doctoral programmes**, including:

- ✓ Industrial Doctorates: Training in academia and industry, Joint supervision
- ✓ **Joint Doctorates**: Joint collaborations leading to a joint/multiple doctoral degree, Joint selection and supervision; pre-agreement for joint degrees required

Respond to well-identified needs in various R&I areas (bottom-up), expose the researchers to the academic and non-academic sectors, and offer training in research- related, as well as competences relevant for innovation and long-term employability

Focus on research and transferable skills, (inter- sectoral secondments), career development plan, supervision, internationalisation.



#### Who applies?

**Consortia** of universities, research institutions and research infrastructures, businesses including SMEs, and other socio-economic actors

At least three independent legal entities, each established in a different MS or AC; minimum of 1 beneficiary from a MS (on top of this minimum, any entity from any third country can join; no minimum for associated partners)

All beneficiaries must recruit at least one doctoral candidate. They are required to host at their premises and supervise recruited researchers, or use associated partners linked to them to do so

Not more than 40.0% of the EU contribution may be allocated to beneficiaries in the same country or to a single international organisation.



#### Researchers

- Supported researchers must be doctoral candidates (not already in possession of a doctoral degree at the date of recruitment)
- Researchers must be enrolled in a doctoral programme, in at least 1 EU Member State/Associated Country (at least 2 for Joint Doctorates)
- Any nationality
- Mobility rule: must not have resided or carried out main activity in the country of the recruiting beneficiary for more than 12 months immediately before their recruitment date



# **MSCA Doctoral Networks**

#### Size

- Up to 360 person-months (standard) + 180 additional person-months for joint or industrial doctorates (incentive)
- Duration
- ✓ **Programme**: max. 48 months
- ✓ Fellowship: between 3 and 36 months
- ✓ **Secondments**: worldwide, up to 1/3 of the fellowship duration
- ✓ **Industrial doctorates**: 50% in the non-academic sector; academic and non-academic organisations jointly supervising can be in the same country
- Calls
- **✓ 2021: 22 June 16 Nov** (tentative); 402.95M€
- ✓ 2022: 3 May 15 Nov (tentative); 427.28M€
- ✓ Resubmission restrictions applying as of 2022 for applications receiving a score below 80%

**Institutional unit** 

contributions

Per person-month



# Contributions for recruited researchers Per person-month

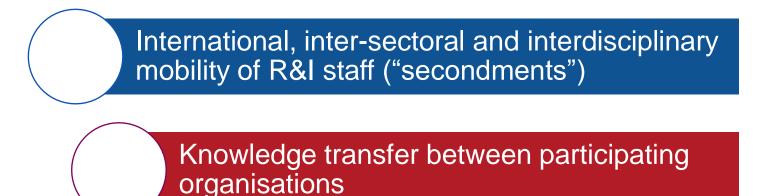
**Special** Long-term Research, **Family Management** leave needs training and Living **Mobility** allowance and indirect allowance allowance networking allowance allowance contribution (if applicable) contribution (if applicable) (if applicable) Requested **EUR 4 000** unit1 X **EUR 3 400 EUR 600 EUR 1 200 EUR 660** X **EUR 1 600** % covered (1/number of by the months) beneficiary



# MSCA Doctoral Networks

Excellence	Impact	Quality and efficiency of the implementation
Quality and pertinence of the project's research and innovation objectives	Contribution to structuring doctoral training at European level and strengthening European innovation capacity	Quality and effectiveness of the work plan, assessment of risks, and appropriateness of the effort assigned to work packages
Soundness of the proposed methodology	Credibility of the measures to enhance the career perspectives of researchers and contribution to their skills development	Quality, capacity and role of each participant, including hosting arrangements and extent to which the consortium as a whole brings together the necessary expertise
Quality and credibility of the training programme	Suitability and quality of the measures to maximise expected outcomes and impacts, as set out in the dissemination and exploitation plan, including communication activities	
Quality of the supervision	The magnitude and importance of the project's contribution to the expected scientific, societal and economic impacts	
50%	30%	20%





Collaboration between the academic and non-academic sectors (including SMEs)

Cooperation across the globe



Consortium of at least 3 legal entities in 3 different countries, 2 of which in a different EU Member State or HE Associated

If organisations from the same sector (academic or non-academic), there must be at least 1 organisation from a non-associated Third Country





#### Any type of staff

contributing to R&I activities (researchers, administrative staff, managerial staff, technical staff)

Researchers at any career stage (from doctoral candidates to postdoctoral researchers)

Actively engaged in research and/or innovation activities for at least **1 month prior** at the sending institution

Each staff member is seconded for a period of 1 to 12 months (may be split into several stays)

Staff needs to be devoted full-time to the action during the secondment

After the secondment, staff should return to their sending institution



#### Duration

- √ 4 years for project implementation
- ✓ Maximum 360 person-months per project (novelty)
- ✓ **Secondments**: 1-12 months per staff
- ✓ Interdisciplinary secondments in the same sector possible within Europe (max 1/3 of project's person-months) (novelty)

#### Calls

- ✓ 2021: 7 Oct 2021 9 March 2022 (tentative); 72.5 M€
- ✓ 2022: 6 Oct 2022 8 March 2023 (tentative); 77.5 M€



### MSCA Staff Exchanges

## Contributions for seconded staff members

Per person-month

Top-up allowance

Special needs allowance (if applicable)

**EUR 2 300** 

Requested unit<sup>1</sup>
x
(1/number of

months)

**Top-up allowance:** travel, accommodation and subsistence costs

**Research, training:** training, transfer of knowledge, networking activities and research expenses

Management and indirect contribution: beneficiary's additional costs

## Institutional unit contributions Per person-month

Research, training and networking contribution

Management and indirect contribution

**EUR 1 300** 

**EUR 1 000** 

Participating organisations are expected to continue paying the salary of the staff during the secondment



Mono-beneficiary action to co-fund new or existing national, regional, institutional schemes for doctoral training and postdoctoral fellowships

#### **Target groups**

- **Doctoral candidates**, i.e. researchers without a doctoral degree at the deadline of the co-funded programme's call; mandatory enrolment in a doctoral programme
- **Postdoctoral researchers**, i.e. researchers with a doctoral degree at the deadline of the co-funded programme's call

#### Who applies?

- Single legal entity established in an EU Member State or HE Associated country.
- **>** A **minimum of three researchers** must be recruited.

#### **Career Development Plan**

To be jointly established by the supervisor and each recruited researcher upon recruitment. Revised (and updated where needed) within 18 months.



#### **Co-funding**

- Max 10 M€ per beneficiary per call (unchanged)
- ➤ The EU contribution covers minimum remuneration (70% living + mobility allowance) and can be used more flexibly

#### **Duration**

- **Programme**: max. 60 months (unchanged)
- **Fellowship**: min 3 months
- **Secondments**: up to 1/3 of the fellowship duration

Introduction of **MSCA Cofund Seal of Excellence** for applications scoring ≥ 85%

#### Calls

- **> 2021**: 12 Oct 2021 10 Feb 2022 (tentative); 89 M€
- **2022**: 11 Oct 2022 9 Feb 2023 (tentative); 95 M€



## Contributions for recruited researchers and institutional contributions

Per person-month

**COFUND allowance** 

Long-term leave allowance

(if applicable)

Special needs allowance (if applicable)

Doctoral Programmes

**EUR 2800** 

**EUR 2800** 

X

% covered by the beneficiary

Requested unit<sup>1</sup>

X

(1/number of months)

Postdoctoral Programmes

**EUR 3 980** 

**EUR 3 980** 

Χ

% covered by the beneficiary

Requested unit<sup>1</sup>

X

(1/number of months)

Minimum remuneration applies:

EUR 2 800 for Doctoral researcher, EUR 3 980 for Postdoctoral researcher



- Mono-beneficiary action to support post-doctoral research and careers with:
  - ✓ European Postdoctoral Fellowships: coming to Europe from any country in the world or moving within Europe
  - ✓ **Global Postdoctoral Fellowships** outside EU Member States and Horizon Europe AC.
- > Focus on i3 (international, inter-sectoral, interdisciplinary) mobility
- ➤ Widening activities: "ERA Fellowships" will be aligned with the MSCA Postdoctoral Fellowships call



#### Who applies?

Legal entity in an EU Member State or HE Associated country

#### **Recruited Researchers**

- any nationality (Global Fellowships: nationals or long-term residents of MS or HE AC) \*
- in possession of PhD at the call deadline novelty
- up to 8 years research experience after PhD (with exceptions= career breaks, work outside research, research outside Europe for reintegrating researchers) – novelty
- **mobility rule**: not resided /main activity in the country of the beneficiary (or host organization for GF) more than 12 in the 36 months before call deadline



#### **Duration**

- > European Fellowships: 12-24 months
- ▶ Global Fellowships: 24-36 months (12-24 outgoing phase & 12 months mandatory return phase in Europe)
- ✓ Secondments worldwide up to 1/3 of the fellowship duration (novelty: worldwide secondments)
- ✓ Optional additional placement of up to 6 months in a non- academic European organization (novelty) at the end of the fellowship applicable to both European and Global PF

#### **Calls**

- 2021: 22 June 12 Oct (tentative); 242 M€ [+indicative EUR 1 million for Euratom]
- 2022: 13 Apr 14 Sept (tentative); 257 M€ [+indicative EUR 1 million for Euratom]
- Resubmission restrictions applying as of 2022 for applications receiving a score below 70%



# Contributions for recruited researchers Per person-month

Institutional unit contributions

Per person-month

Living allowance	Mobility allowance	Family allowance (if applicable)	Long-term leave allowance (if applicable)	Special needs allowance (if applicable)	Research, training and networking contribution	Management and indirect contribution
EUR 5 080	EUR 600	EUR 660	EUR 5 680 x % covered by the beneficiary	Requested unit <sup>1</sup> x (1/number of months)	EUR 1 000	EUR 650

<sup>\*</sup> A country correction coefficient applies to the living allowance in order to ensure equal treatment and purchasing power parity for all researchers



Excellence	Impact	Quality and efficiency of the implementation	
Quality and pertinence of <b>the project's research</b> and innovation objectives (and the extent to which they are ambitious, and go beyond the state of the art)	Credibility of the measures to enhance the career perspectives and employability of the researcher and contribution to his/her skills development	Quality and effectiveness of the work plan, assessment of risks and appropriateness of the effort assigned to work packages	
Soundness of the proposed methodology (including interdisciplinary approaches, consideration of the gender dimension and other diversity aspects if relevant for the research project, and the quality of open science practices)	Suitability and quality of the measures to maximise expected outcomes and impacts, as set out in the dissemination and exploitation plan, including communication activities	Quality and capacity of the host institutions and participating organisations, including hosting arrangements	
Quality of the supervision, training and of the two-way transfer of knowledge between the researcher and the host Quality and appropriateness of the researcher's professional experience, competences and skills	The magnitude and importance of the project's contribution to the expected scientific, societal and economic impacts		
50%	30%	20%	



- Coordination and Support Action to bring research and researchers closer to the public at large, through the organisation of the European Researchers' Night
- ✓ Target group: general public, pupils, families, students

#### **Focus:**

- ▶ Enhance engagement with citizens on R&I
- Increase awareness among the general public of the importance and benefits of R&I and its concrete impact on citizens' daily life
- > Raise young people's interest for research and science
- > Improves researchers' communication skills and competences



#### Who applies?

One or more legal entities established in an EU Member State or HE Associated country

#### **EU Contribution**

- Lump-sum contributions
- Contribution estimated between 50-150k€ per annual edition of the European Researchers' Night

#### **Duration**

- The call 2022 covers two successive editions (2022-2023)
- Applicants encouraged to submit proposals covering two successive editions (2022/2023) of the NIGHT

#### Call

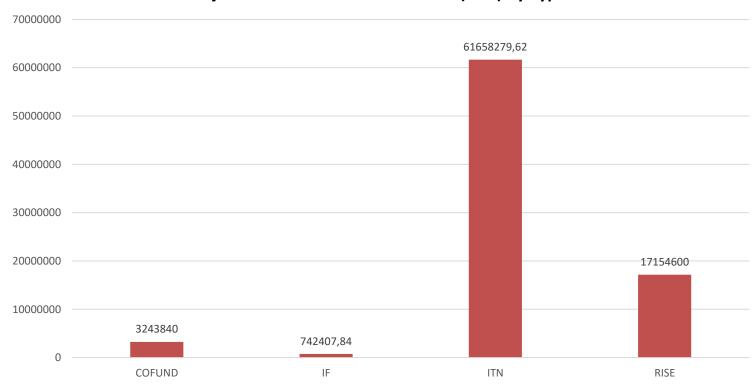
**> 2021**: 22 Jun – 7 Oct (tentative); 15 M€



Year	Action	Estimated opening*	Estimated deadline*	
2021	Doctoral Networks	22 June 2021	16 November 2021	
	Postdoctoral Fellowships	22 June 2021	12 October 2021	
	Staff Exchanges	7 October 2021	9 March 2022	
	COFUND	12 October 2021	10 February 2022	
	MSCA and Citizens (covers 2 editions)	22 June 2021	7 October 2021	
2022	Doctoral Networks	3 May 2022	15 November 2022	
	Postdoctoral Fellowships	13 April 2022	14 September 2022	
	Staff Exchanges	6 October 2022	8 March 2023	
	COFUND	11 October 2022	9 February 2023	
	MSCA and Citizens	No call foreseen in 2022		



#### Sum of Project H2020 Net EU Contribution (EUR) by Type of action





## Information days Ενημερωτικές εκδηλώσεις της ΕΕ



### Ενημερωτικές εκδηλώσεις της ΕΕ

- > 28 Iouviou Infrastructures
- > 29 & 30 Iouviou <u>Digital</u>, industry & space (cluster 4)
- 30 Iouviou <u>Civil security for society (cluster 3)</u>
- 1 Ιουλίου <u>Culture, creativity & inclusive society (cluster 2)</u>
- 1 Ιουλίου <u>The Marie Skłodowska-Curie Actions: what is new under -Horizon Europe</u>
- 2 Ιουλίου <u>Health (cluster 1)</u>
- 5 & 6 Ιουλίου Climate, energy & mobility (cluster 5)
- 7 & 8 Ιουλίου Food, bioeconomy, natural resources, agriculture & environment (cluster 6)
- 9 Ιουλίου <u>European Research Area (ERA) & Widening</u>

#### Περισσότερες πληροφορίες:

https://horizoneurope.gr/news/save-the-dates-horizon-europe-info-days-2021/





### Ενημερωτικές εκδηλώσεις της ΕΕ

#### Περισσότερες πληροφορίες:

http://horizoneurope.gr/news/eu-research-and-innovation-days-2021/



# Thank you for your attention

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European Research Council
Established by the European Commission



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