



Marie Skłodowska-Curie Actions (MSCA) in a nutshell and specificities for Romanian R&I community



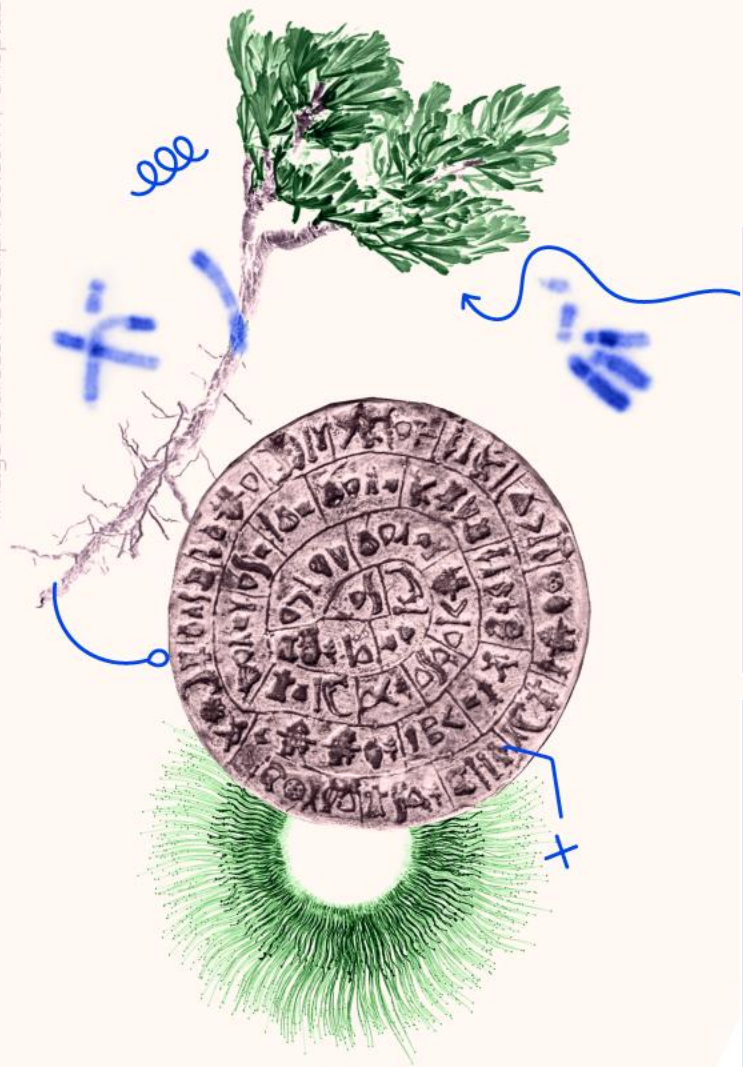
Maria VILI

European Research Executive Agency (REA) - Unit A2

21 November 2024

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Marie Skłodowska
Curie Actions



MSCA: A world reference for research and training



Researchers' training, skills & career development (all career stages)



Excellent research in all domains (bottom-up approach)



International, cross-sectoral & interdisciplinary mobility



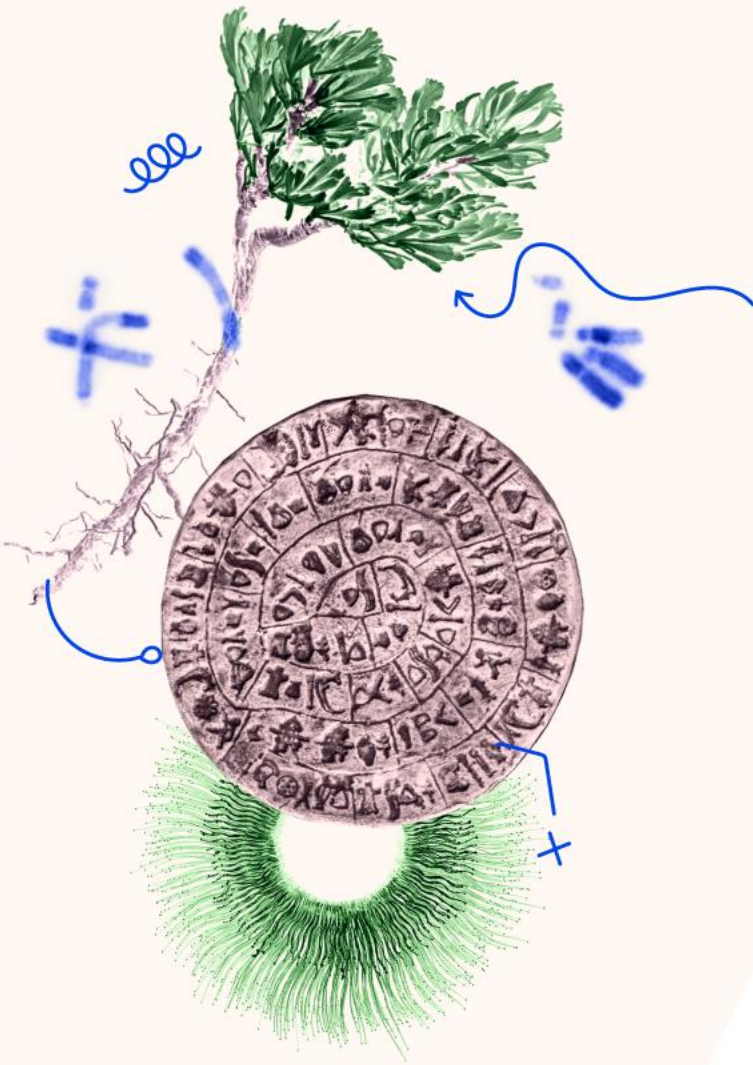
Attractive working & employment conditions



Structuring impact on organisations through excellent programmes



Strong collaboration with industry & SMEs



Benefits of the MSCA



- High-quality research training and supervision offered
- Build up strong research and innovation partnerships
- Strengthened research capacity



- New knowledge and skills in and outside academia
- Innovation-oriented mindset, to convert ideas into products and services.
- Increased career prospects and employability



- Scientific excellence promoted in all countries
- Stronger European Research Area (ERA)
- New links between research, industry and society

MSCA-backed Nobel Laureates

- Since the beginning of the programme, **20 MSCA researchers** have been awarded the Nobel Prize. Some of the Laureates also **supervised** the award-winning research.



In 2024, David Baker has been awarded the 2024 **Nobel Prize in Chemistry**. Baker participated in 4 MSCA projects funded by Horizon 2020 and previous EU programmes for research and innovation, allowing him to host, train and supervise MSCA postdoctoral fellows.

In 2023, Anne L’Huillier and Ferenc Krausz were awarded the **Nobel Prize in Physics**. Both researchers supervised and coordinated several **MSCA** projects under the **FP6, FP7 and H2020** frameworks.

-
- The work of MSCA researchers continues to **change our lives for the better** through their **scientific discoveries** across all research and innovation disciplines.

MSCA-backed Nobel Laureates to date



David Baker (2024, supervisor)

Anne L'Huillier and Ferenc Krausz (2023, coordinators and supervisors)

Alain Aspect and Anton Zeilinger (2022, supervisors)

Morten Meldal (2022, supervisor)

Benjamin List and David W.C. MacMillan (2021, supervisors)

Emmanuelle Charpentier (2020, coordinator)

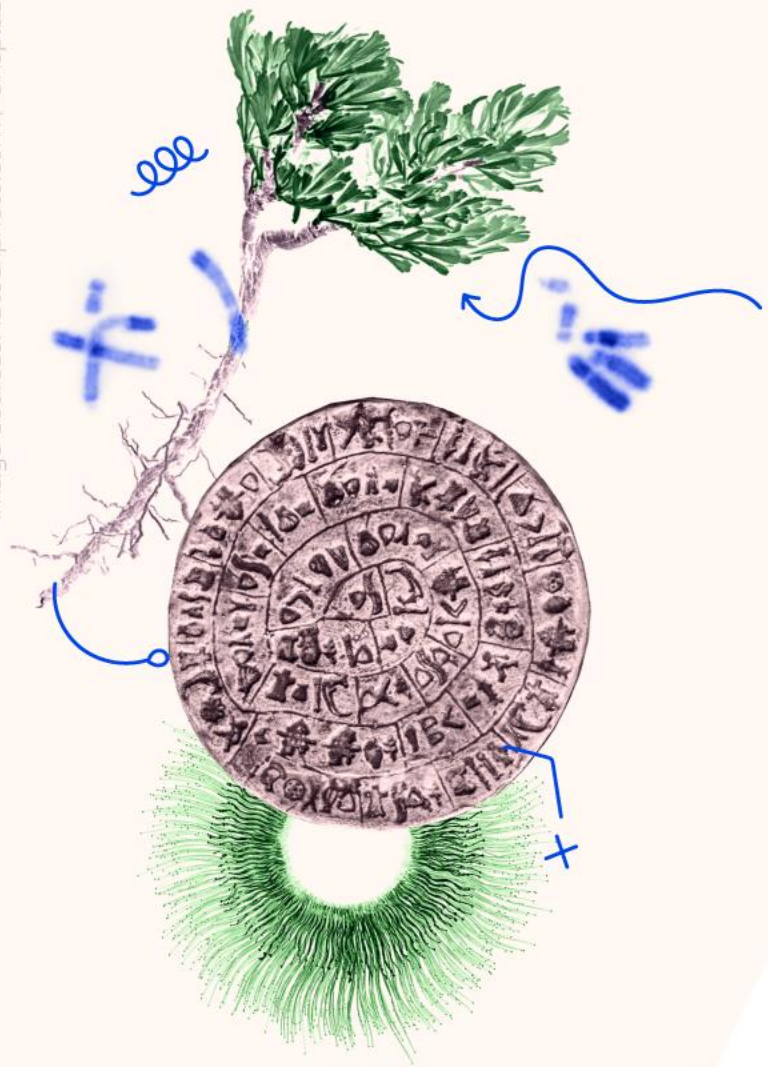
Richard Henderson (2017, coordinator)

Jean-Pierre Sauvage (2016, supervisor)

- **Bernard Feringa** (2016, supervisor)
- **Takaaki Kajita** (2015, RISE fellow)
- **May-Britt Moser** (2014, coordinator)
- **Edvard I. Moser** (2014, coordinator)
- **Stefan W. Hell** (2014, coordinator and fellow)
- **Jean Tirole** (2014, supervisor)
- **James Rothman** (2013, supervisor)

European Commission: Directorate-General for Education, Youth, Sport and Culture, *Marie Skłodowska-Curie Actions – Developing talents, advancing research – Almost 30 years of EU support to researchers' skills and career development*, Publications Office of the European Union,

<https://data.europa.eu/doi/10.2766/7094962>



Key Figures Horizon 2020 (2014-2020)

+65,000
Researchers,
including 25,000
PhD candidates

37%
Researchers from
outside EU

6.2 billion €
Under Horizon
2020

+1,000
Doctoral
programmes

+4,500
Companies
supported

42%
Female
researchers

The MSCA under Horizon Europe



Pillar I EXCELLENT SCIENCE

European Research
Council

Marie Skłodowska-Curie
Actions

Research Infrastructures



Pillar II GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL COMPETITIVENESS

Clusters

- Health
- Culture, Creativity & Inclusive Society
- Civil Security for Society
- Digital, Industry & Space
- Climate, Energy & Mobility
- Food, Bioeconomy, Natural Resources, Agriculture & Environment

Joint Research Center



Pillar III INNOVATIVE EUROPE

European Innovation Council

European Innovation
Ecosystems

European Institute of
Innovation & Technology

WIDENING PARTICIPATION AND STRENGTHENING THE EUROPEAN RESEARCH AREA

Widening participation & spreading
excellence

Reforming & enhancing the European R&I
system

Pillar I: Excellent Science

Reinforcing and extending the excellence of the Union's science base

European Research Council

Frontier research by the best researchers and their teams

€16 billion

Marie Skłodowska-Curie Actions

Equipping researchers with new knowledge and skills through mobility and training

€6.6 billion

Research Infrastructures

Integrated and inter-connected world-class research infrastructures

€2.4 billion

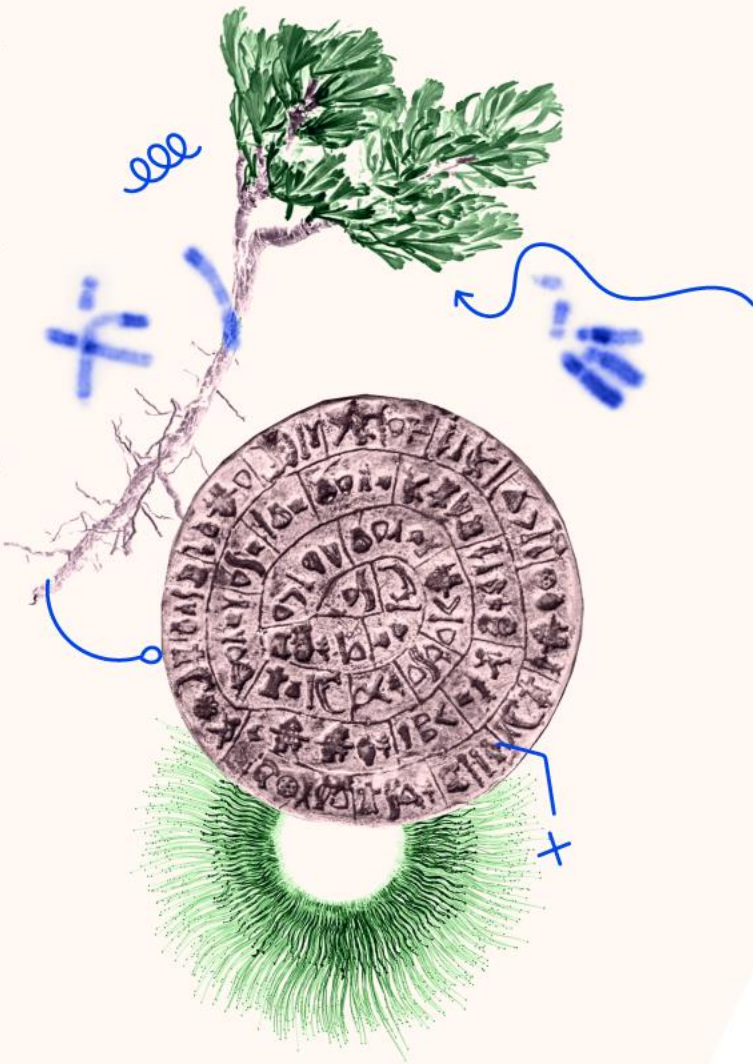
Introduction to the MSCA

EU's reference programme for doctoral and postdoctoral training, contributing to:

- A highly skilled **research-based community** able to detect and tackle upcoming challenges and communicate scientific evidence to society.
- Provide researchers with **skills** needed in the labor **market**, so that their knowledge and ideas can be converted into products and services for the benefit of public use.
- Develop **excellent doctoral programmes** enhancing the global attractiveness and visibility of the institutions involved.
- Promote the **EU's** global attractiveness for talents.
- Budget under Horizon Europe: **6.6€ billion**
- **Worldwide** geographic coverage.

Policy background, principles and priorities

- Contribution to the **European Research Area (ERA)** and **European Education Area (EEA)**
- Contribution to the **EU external policy objectives**
- Committed to the **European Charter for Researchers** and the **Code of Conduct for the Recruitment of Researchers + Innovative Doctoral Training Principles**
- Underlying Principles: **Open Science, Responsible Research & Innovation**
- New publishing platform: **Open Research Europe** (open peer-review): <https://open-research-europe.ec.europa.eu/>



The Actions

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)

MSCA – Participants from Romania

- **Institutions** – Universities, research institutions and research infrastructures, companies, industry, businesses including SMEs, start-ups, hospitals, museums, civil society organization, independent research infrastructures, other socio-economic actors

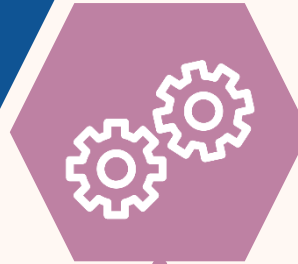
Beneficiary - Coordinator / Associated Partner (hosting secondments, NAPs, visits, etc)

- **Researchers** – in all stages in their career PhD/PostDoc, supervisors, any type of staff contributing to R&I activities (researchers, administrative, managerial and technical staff)

MSCA – Academic / non-academic sectors

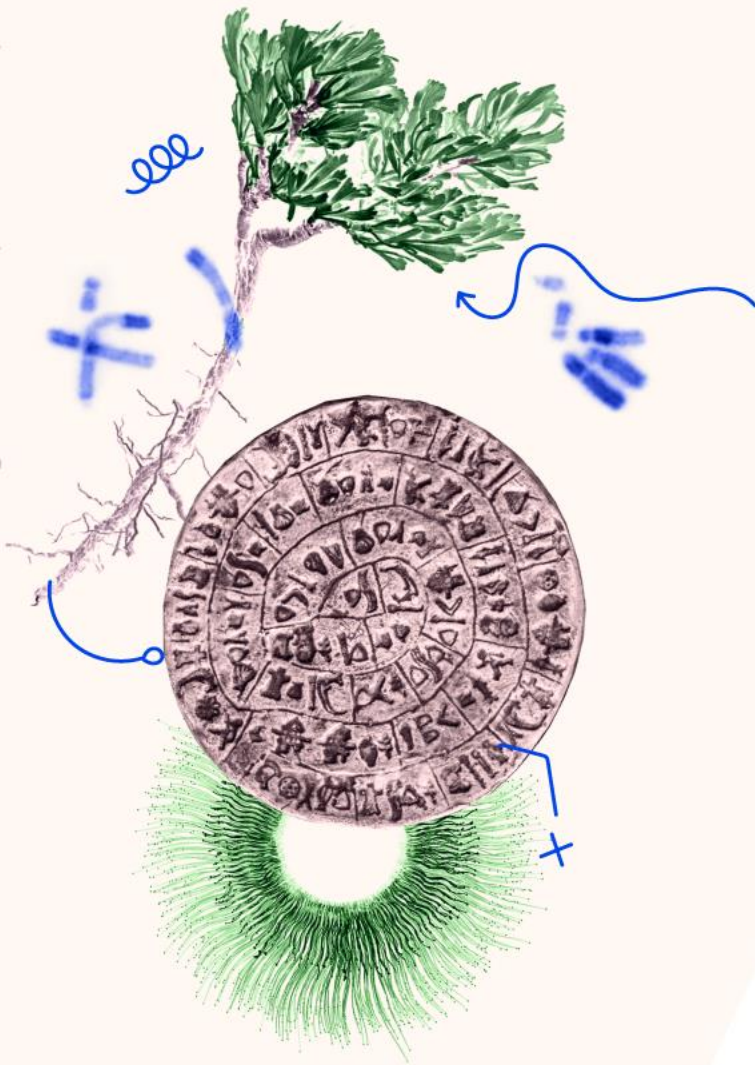
Academic sector

- ✓ public or private higher education establishments
- ✓ public or private non-profit research organisations
- ✓ International European Research Organisations



Non-academic sector

- ✓ any socio-economic actor not included in the academic sector



The Actions

Doctoral Networks (DN)

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

Doctoral Networks



- Implement **doctoral programmes** (including joint doctorates and industrial doctorates) **by international partnerships** of organisations from different sectors.
- They train **highly-skilled doctoral candidates**, stimulate their **creativity**, enhance their **innovation capacities** and boost their **employability** in the long-term.

MSCA – DN 2024 call 608,8 M€; deadline 27 Nov 2024

Multi-beneficiaries Actions (Consortia) to set up **doctoral programmes**:

Doctoral Networks (standard): Training in academia and/or industry

Industrial Doctorates: Training in academia and industry, Joint supervision

Joint Doctorates: Joint collaborations leading to a joint/double/multiple doctoral degree, Joint selection and supervision; pre-agreement for joint degrees required

DN

Doctoral Networks

*Participants implement
a joint research
programme*

DN-ID

Doctoral networks
Industrial
Doctorates

*Doctoral training with the
non-academic sector*

DN-JD

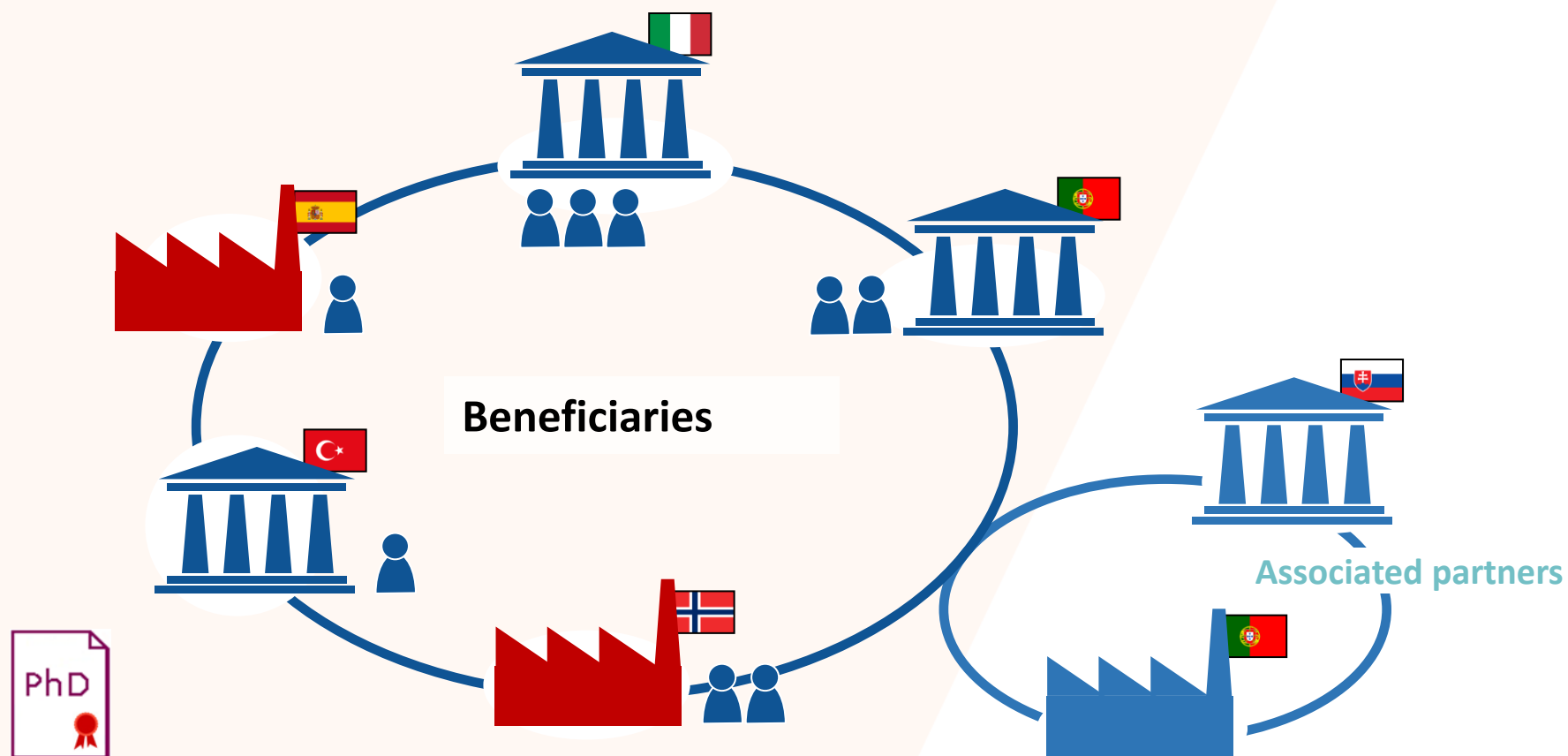
Doctoral Networks
Joint
Doctorates

*Doctoral programme to
deliver joint degrees*

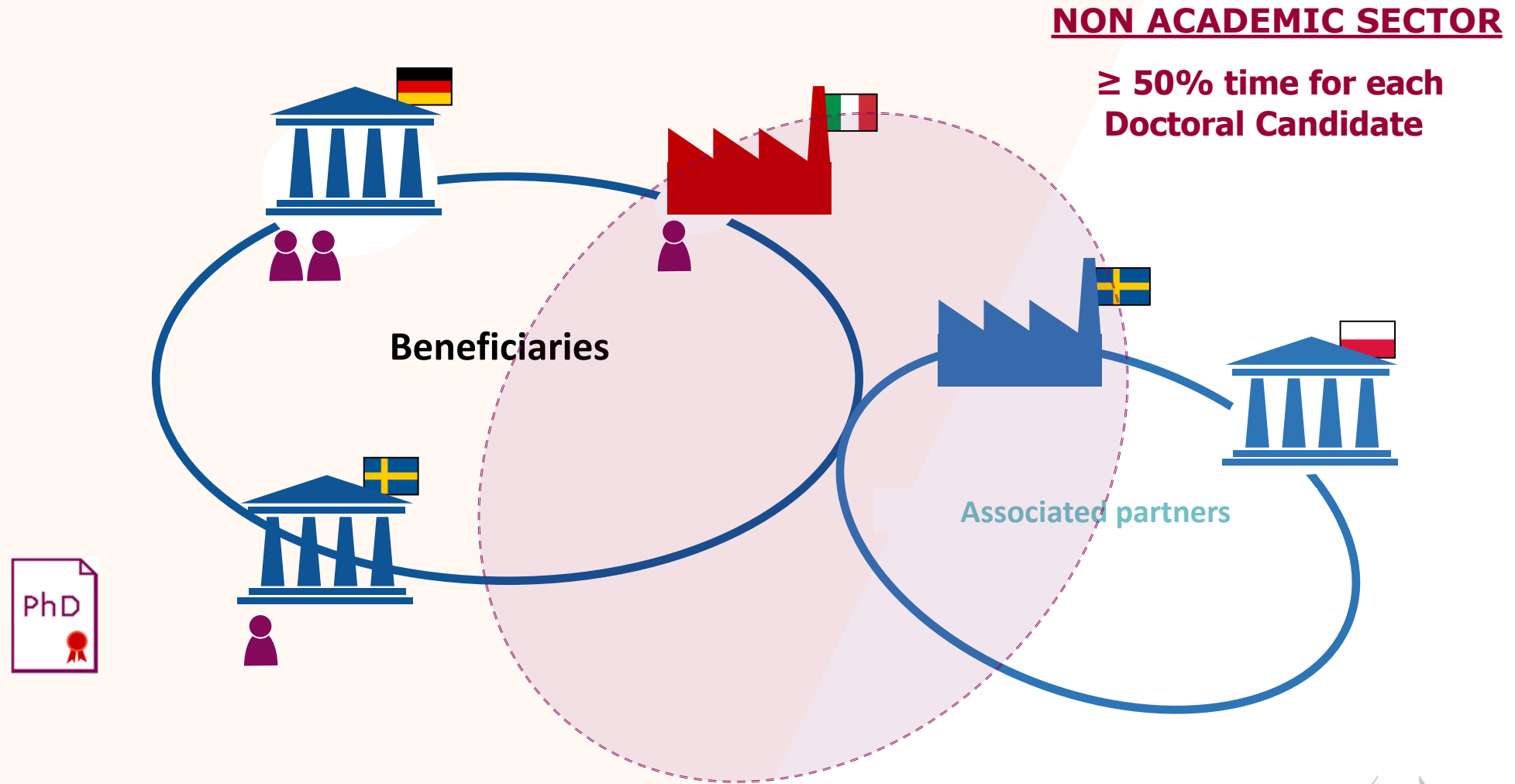
All 3 modes compete within the same scientific panels



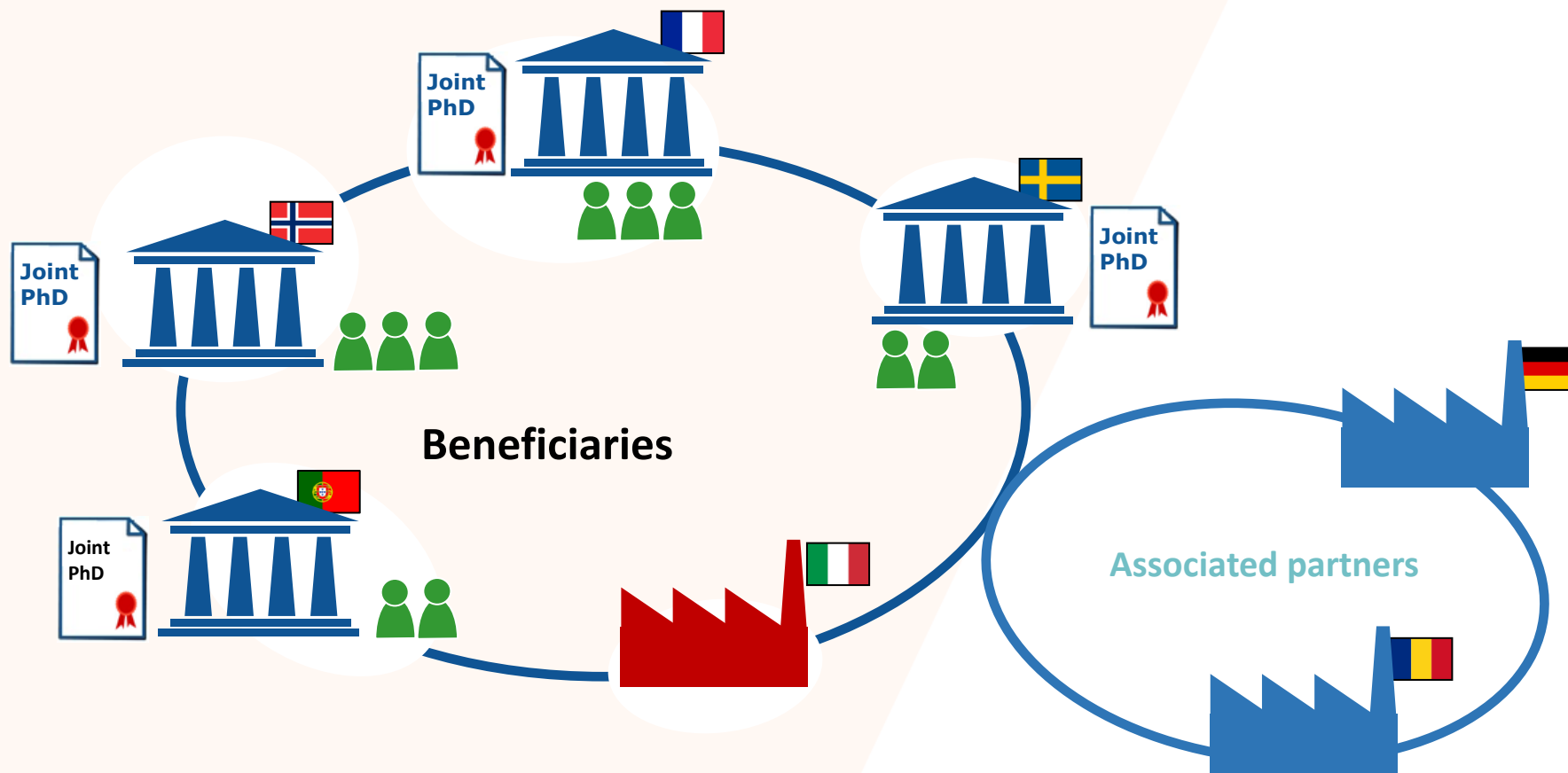
Doctoral Network – Example consortium

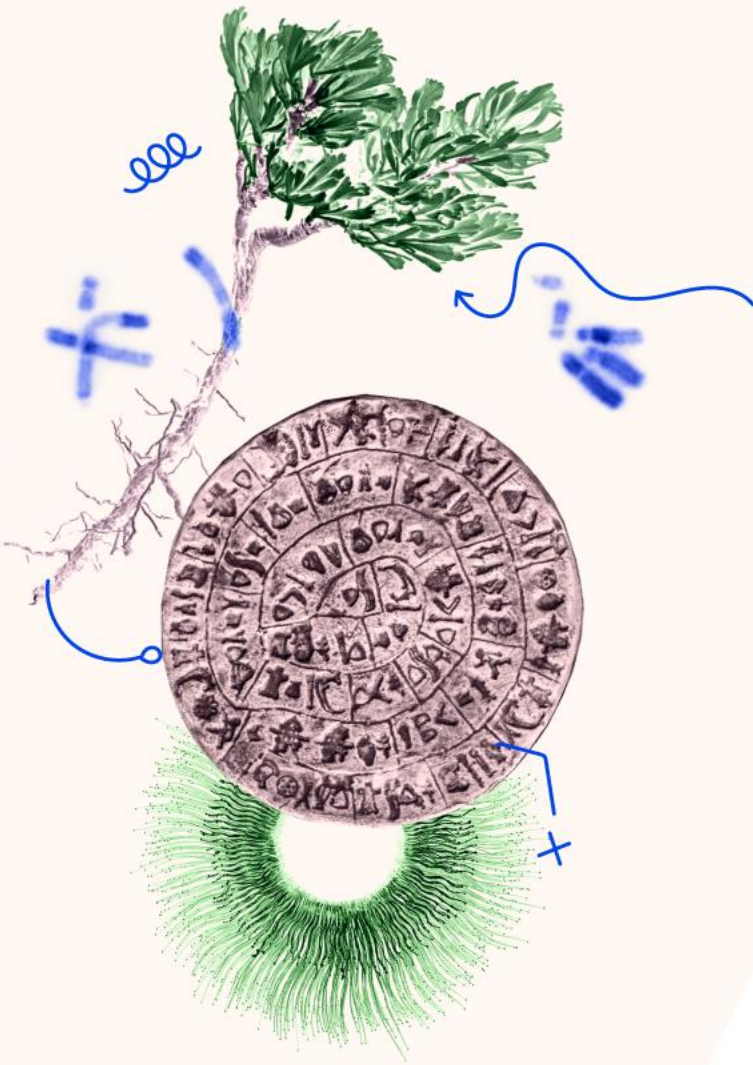


Industrial Doctorate – Example consortium



Joint Doctorate – Example consortium



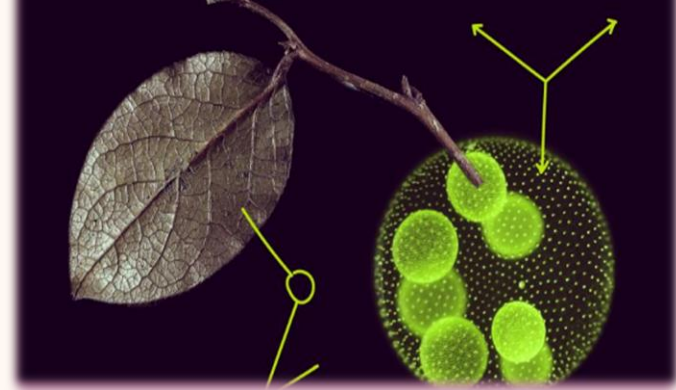


The Actions

Postdoctoral Fellowships (PF)

Support to excellent postdoctoral researchers

Postdoctoral Fellowships



- Support researchers' careers and **foster excellence in research and innovation.**
- Researchers holding a **PhD** can carry out their research activities, acquire **new skills** and develop their **careers abroad**, whilst developing competences in **non-academic sectors** and working within **interdisciplinary teams.**

MSCA Postdoctoral Fellowships (PF) - 2024

Call deadline: 11 September 2024

EF

European
Fellowships

*Held in EU Member States or
Associated Countries*

12 - 24 months (+ optional 6 m NAP)

354.60 M€

GF

Global
Fellowships

*Based on a secondment to a
third country*

24 - 36 months (+ optional 6 m NAP)

62.58 M€



Total Budget: 417.18 M€

Key points about MSCA-PF

Postdoctoral researchers only

Maximum of 8 years FTE postdoctoral research experience

Researchers of **any nationality** (*restrictions for GF and Euratom)

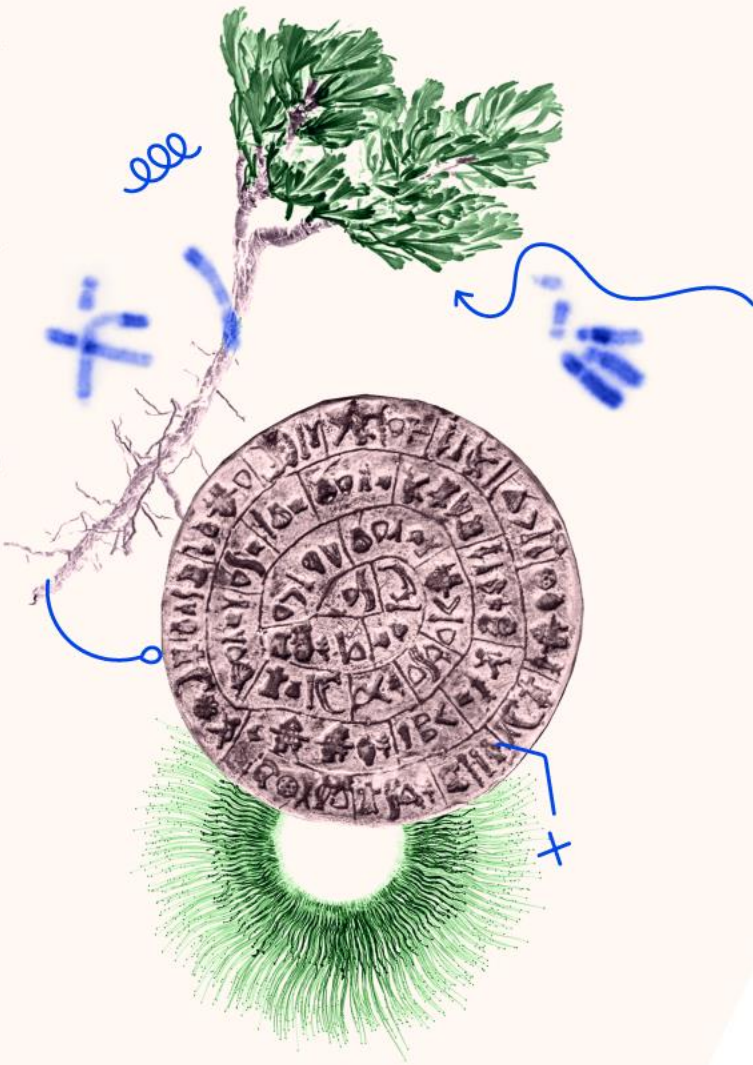
Open to all scientific fields, including Euratom 

 Non-Academic Placements possible (up to 6m at end of project)

Secondments encouraged (worldwide, up to 1/3 of project duration)

Monobeneficiary – 1 Host organization EU/AC and 1 Researcher

Seal of Excellence proposals score $\geq 85\%$ 

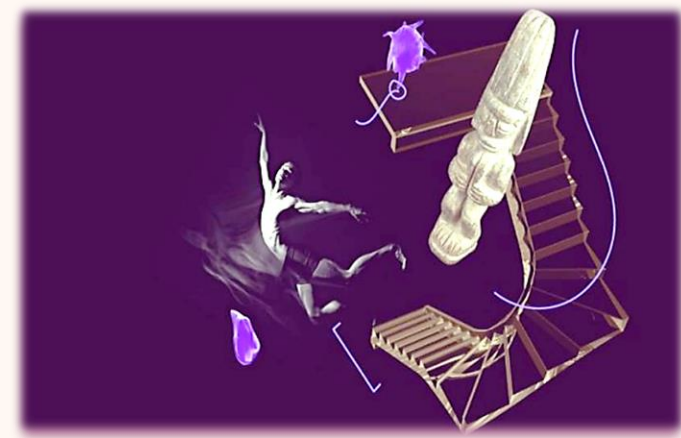


The Actions

Staff Exchanges

Support for research and innovation staff exchanges

Staff Exchanges



- Encourage **short-term international and intersectoral exchanges** of research and innovation staff through sustainable, collaborative projects in **Europe and beyond**.
- By doing so, they enhance **knowledge and skills transfer** and increase organisations' **research and innovation** capabilities

What is Staff Exchanges?



Research & Innovation **mobility** action



It equips researchers and organisations **worldwide** with advanced skills and cutting knowledge



It fosters mobility of entities from both the **academic** and **private** sectors



Can be combined with other programmes (**synergy**)

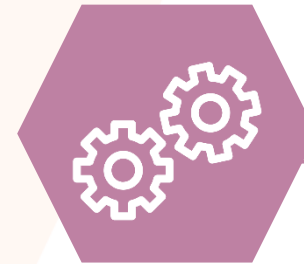


The **budget** allocated in **2024 call** is **€ 99,47 M** (deadline 5 February 2025)

Who can participate in MSCA-SE projects?

Consortium of min. **3 legal entities** in **3 different countries**, 2 of which in a different EU Member State or HE Associated Country

Academic sector



Non-academic sector

Eligible staff



Seconded staff members



Any type of staff involved in R&I activities (researchers, administrative staff, managerial staff, technical staff)

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

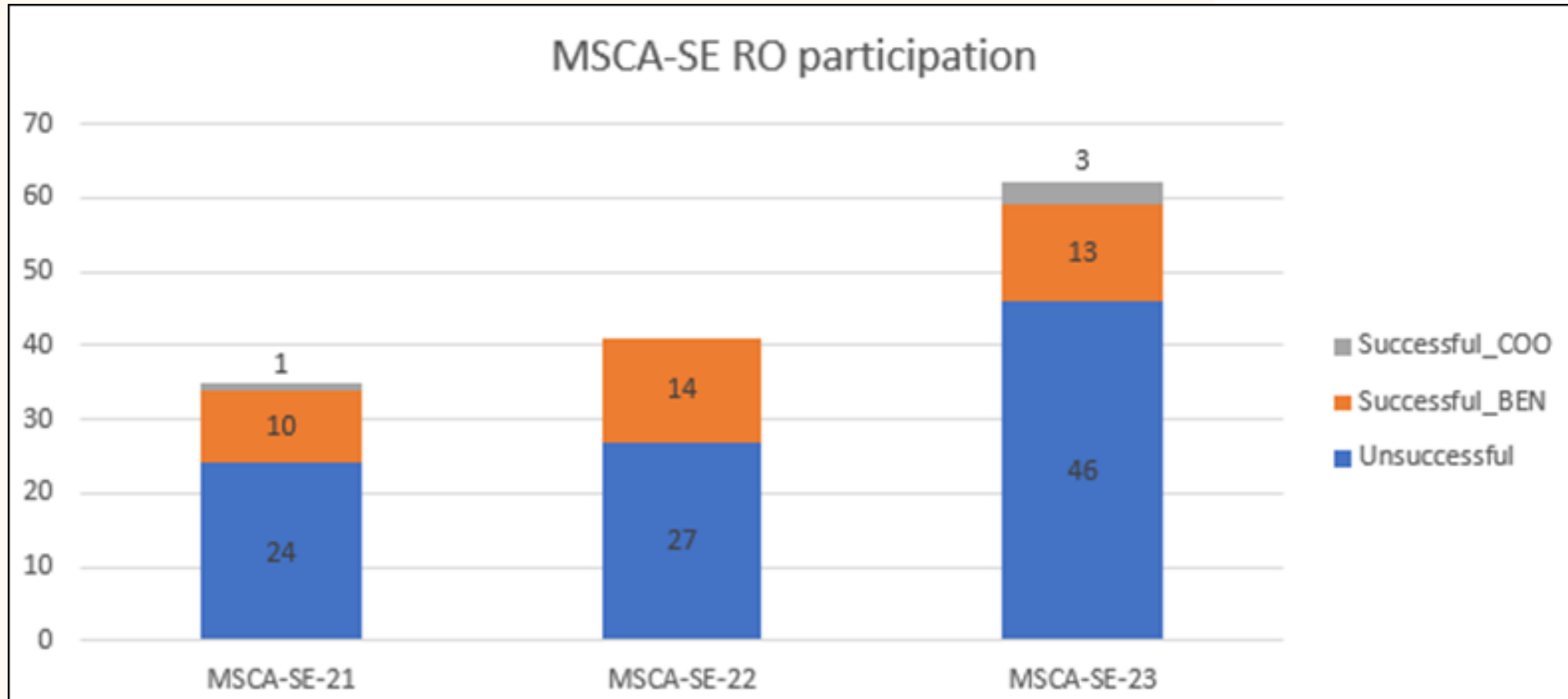
Actively engaged in research and/or innovation activities for at least **1 month** prior at the sending institution

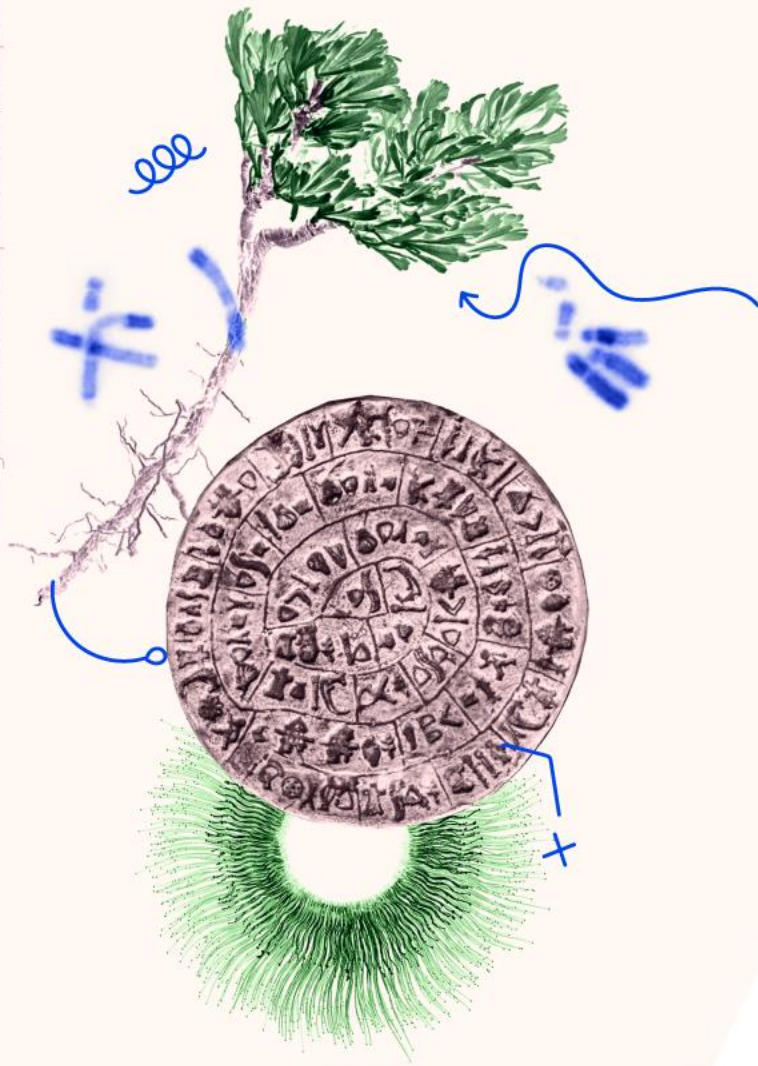
Each staff member is seconded for a period of **1 to 12 months** (may be split into several stays)

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

After the secondment, staff should **return to their sending institution**

SE - RO participation





The Actions

COFUND

*Co-funding doctoral
and postdoctoral
programmes*

COFUND

- **Co-finances regional, national and international doctoral and postdoctoral programmes** for researchers' training and career development.
- The COFUND action spreads MSCA's best practices by **setting high standards and excellent working conditions**, and by boosting training and **international, interdisciplinary and inter-sectoral mobility**.



What is MSCA COFUND?

**Mono-beneficiary
action:**

new or existing national, regional, institutional schemes for doctoral training & postdoctoral fellowships

Focus:

best practice, high standards & excellent working conditions, sustainable structuring effects, encouraging synergies with other EU funds

COFUND – For whom?



Single legal entity established in an EU Member State



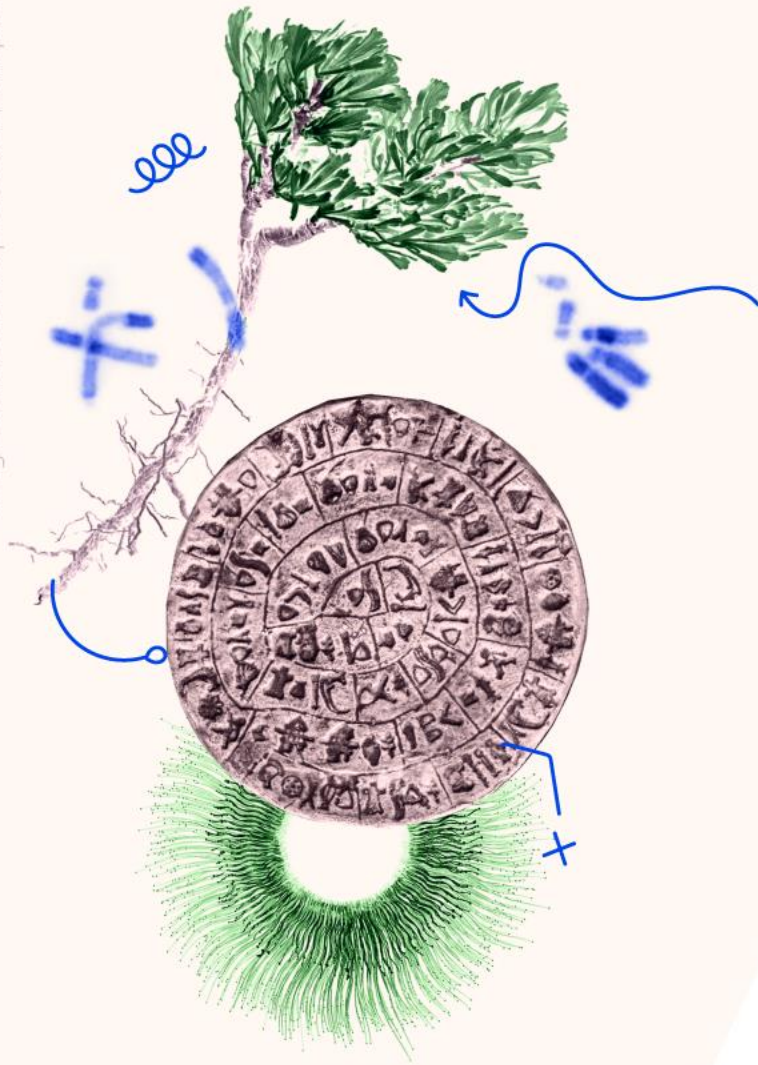
Single legal entity established in HE associated country



All beneficiaries must recruit at least three researchers

COFUND – call details

Call	2024	
	Opening Closing	Budget (EUR m)
COFUND 2024	April 23 September 26	104.80



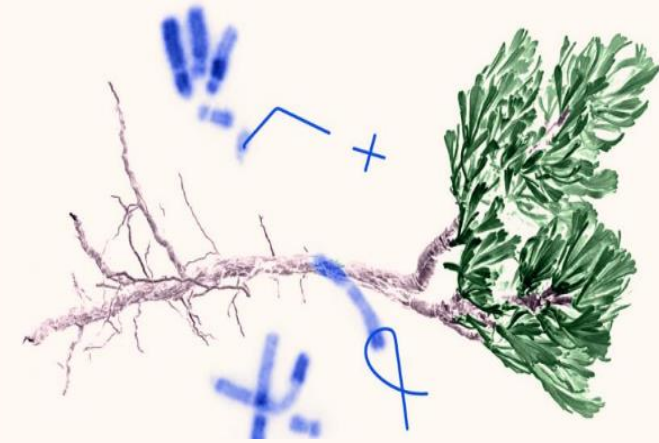
The Actions

MSCA and Citizens

*Public outreach events
(Night)*

MSCA and Citizens

- Brings **research and researchers** closer to **children, families and the public** at large through the **European Researchers' Night** - the annual **research communication and promotion event**.
- It takes place at the end of September across **EU Member States** and Horizon Europe Associated countries.



MSCA and Citizens

Types of European Researchers' Night activities:

Activities can combine **education with entertainment.**

They can take various forms, such as **exhibitions, hands-on experiments, science shows, simulations, debates, games, competitions, quizzes, etc**

Where appropriate, **engagement with educational institutions should be sought**

MSCA and Citizens

Researchers at Schools activities:

Activities will allow **researchers to showcase their work and interact with pupils**

Researchers will engage with teachers and pupils on challenges related to **climate change, sustainable development, health and other European Commission priorities**, such as the European Green Deal or the EU Missions

MSCA and Citizens

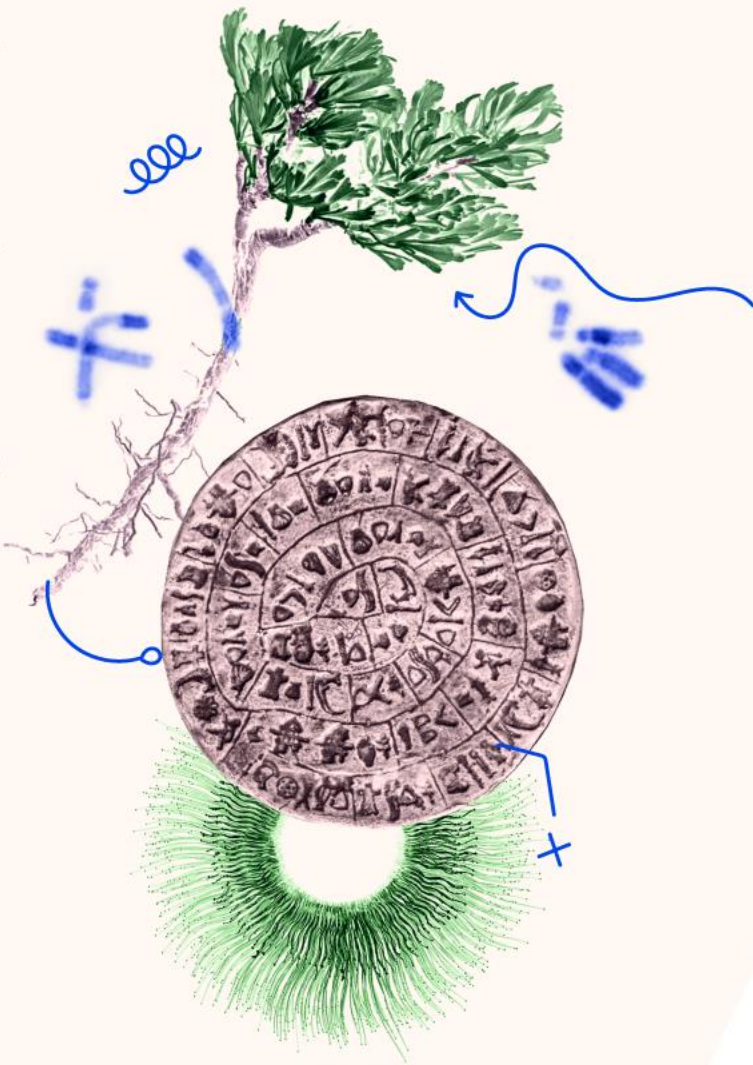
Project Duration:

24 months from the starting date

Applicants are encouraged to submit proposals covering two successive editions (2026 and 2027) of the European Researchers' Night and implementation of Researchers at Schools activities during the project duration.

MSCA and Citizens – call details

Call	2025	
	Opening Closing	Budget (EUR m)
MSCA and Citizens 2025	June 17 October 22	16.25



The Actions

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

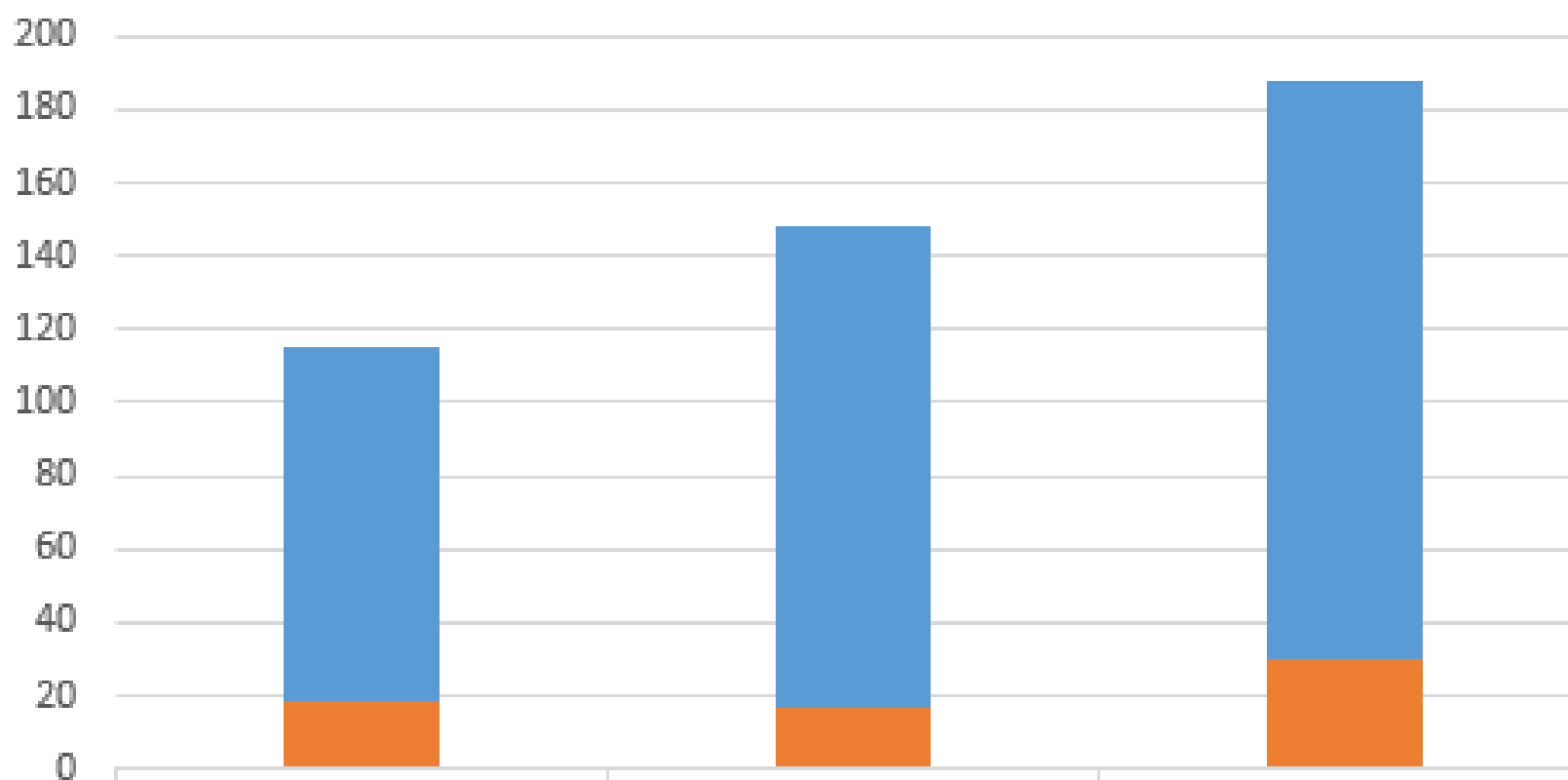
COFUND

Co-funding doctoral and postdoctoral programmes

MSCA and Citizens

Public outreach events (Night)

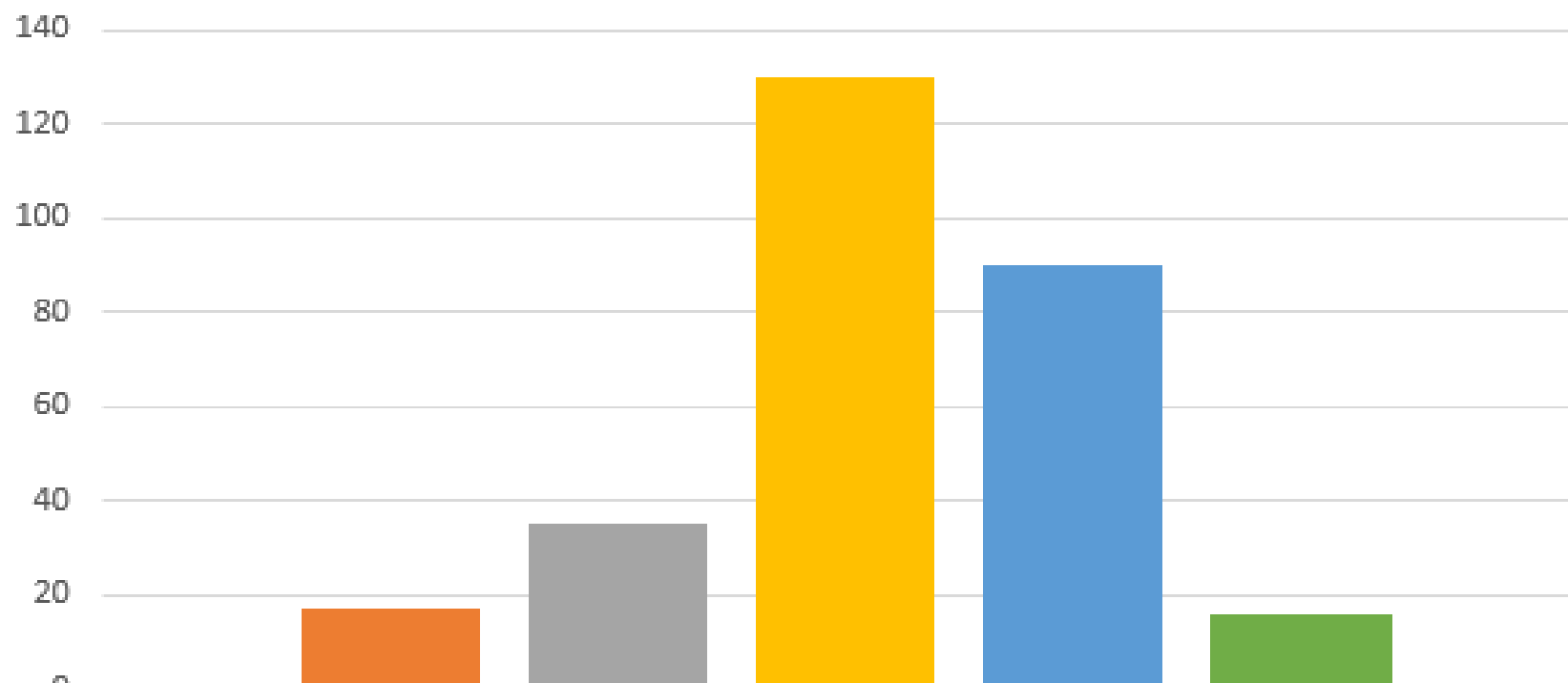
Romania - total participations in submitted proposals, by FP/Year



	2021	2022	2023
Participant/Associated Partner	96	131	158
Coordinator	19	17	30

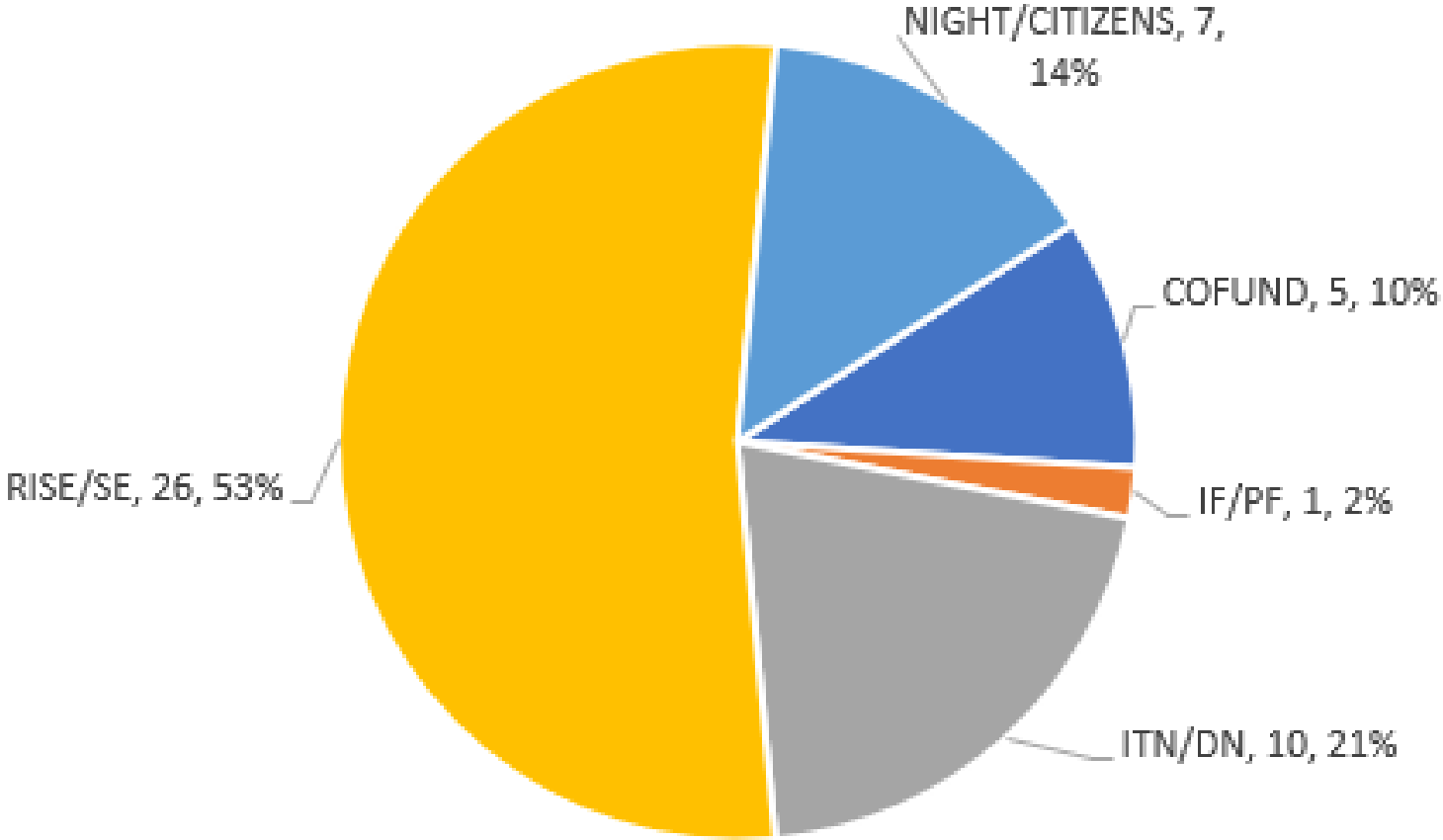


Romania - submitted proposals with RO participation, by FP/Action

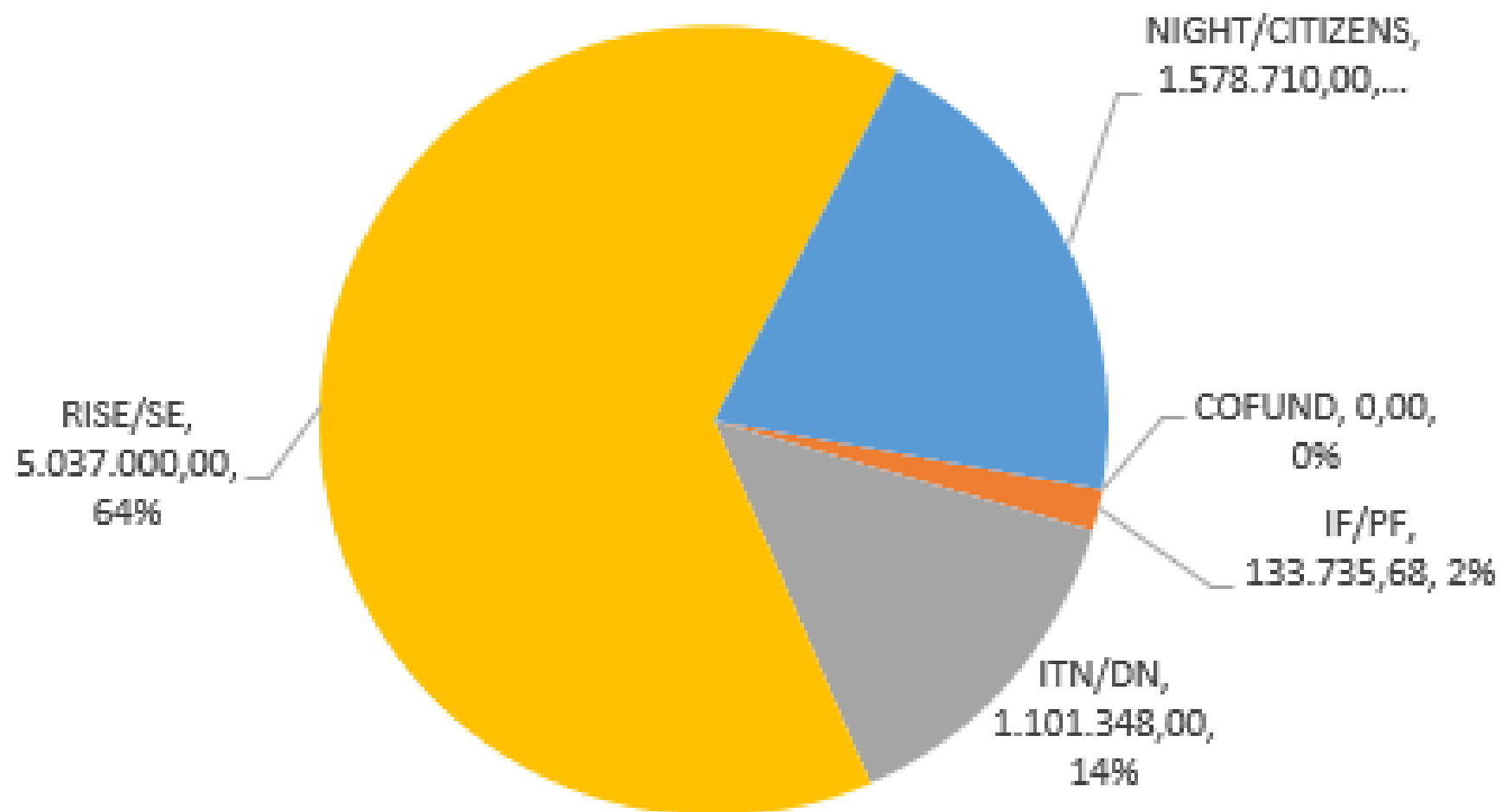


■ COFUND	17
■ IF/PF	35
■ ITN/DN	130
■ RISE/SE	90
■ NIGHT/CITIZENS	16

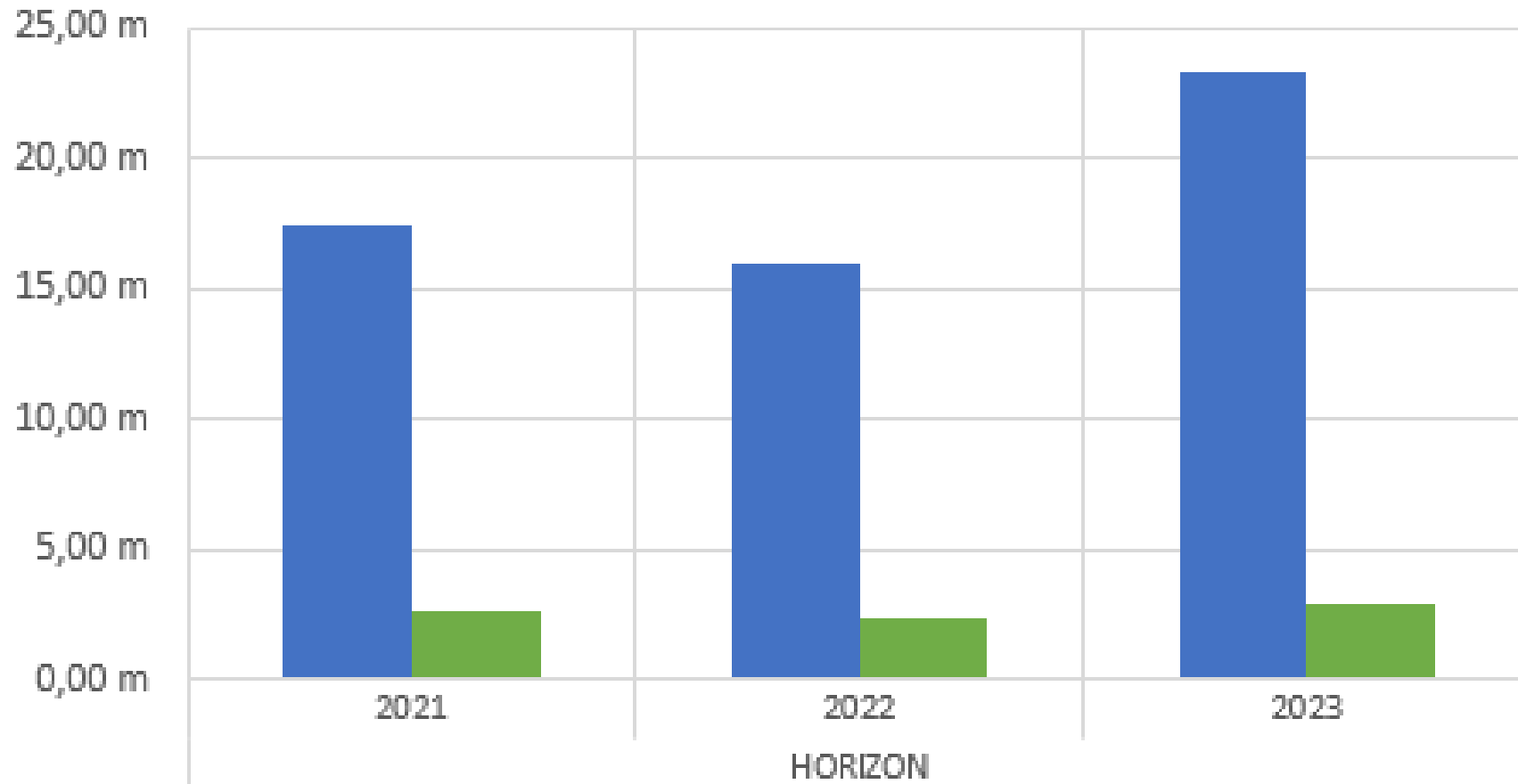
Main list HE



Romania - awarded budget per action



Romania - requested and awarded budget



■ requested

17,41 m

15,92 m

23,27 m

■ awarded (main)

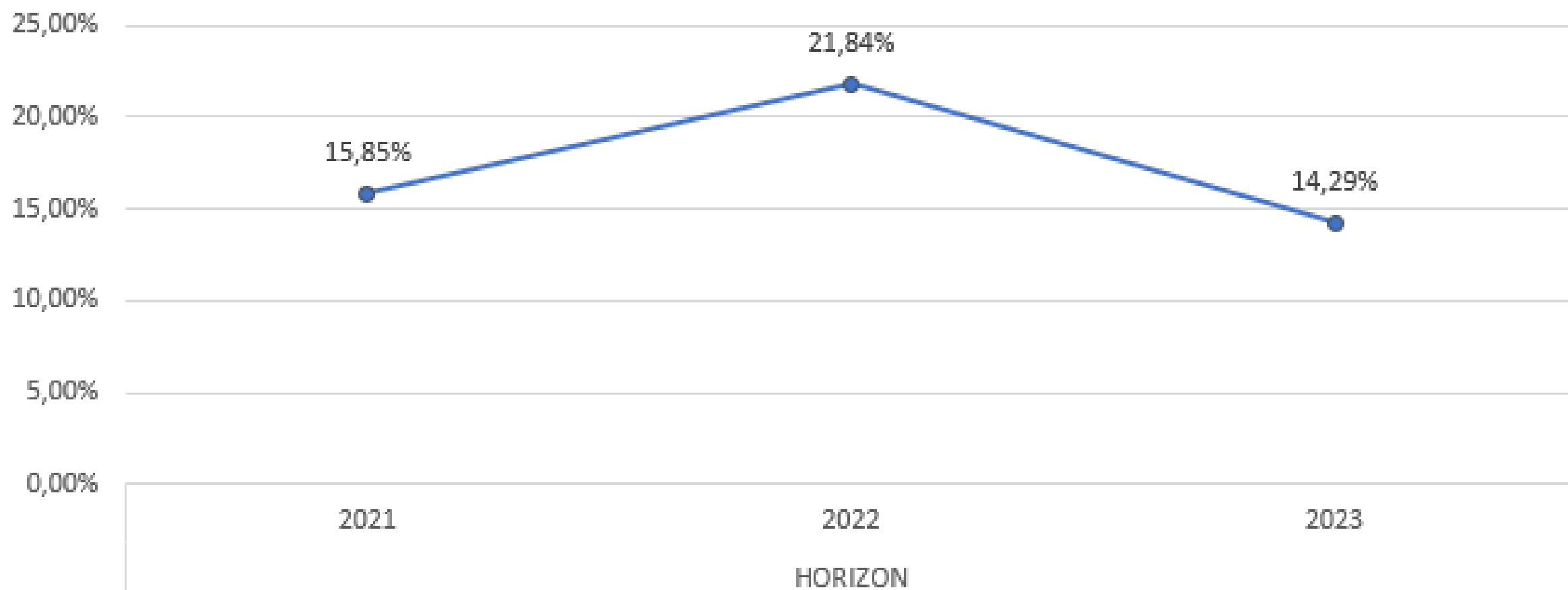
2,56 m

2,36 m

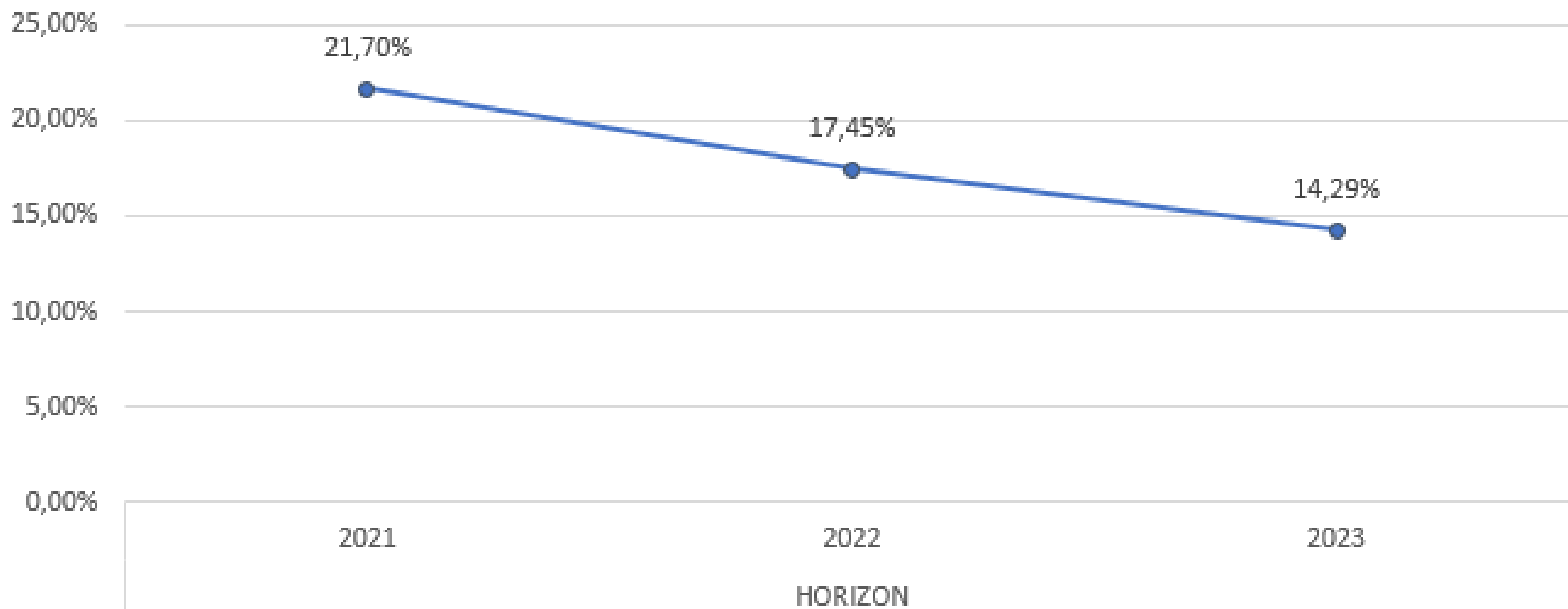
2,93 m



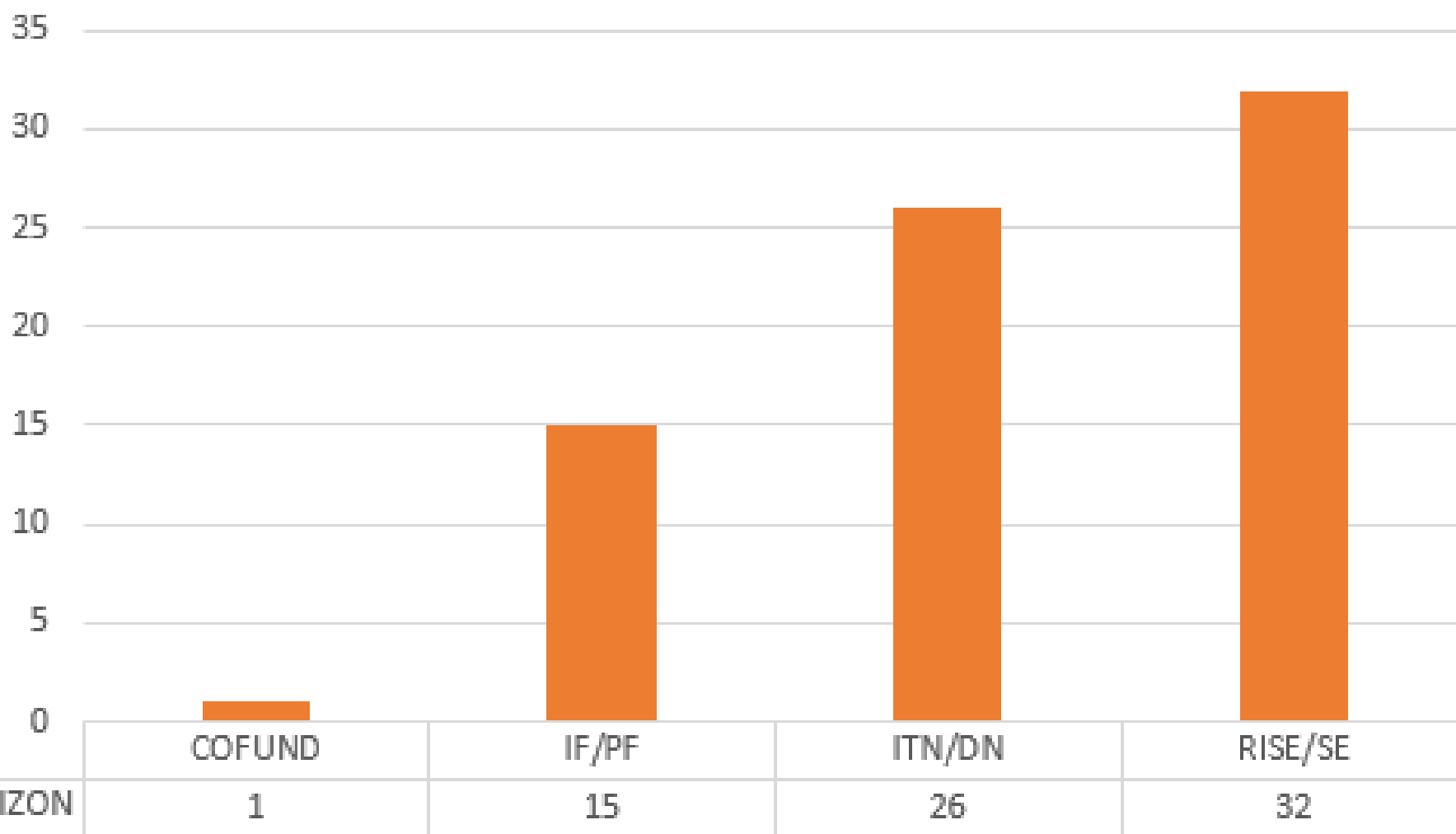
Romania - success rate as host country



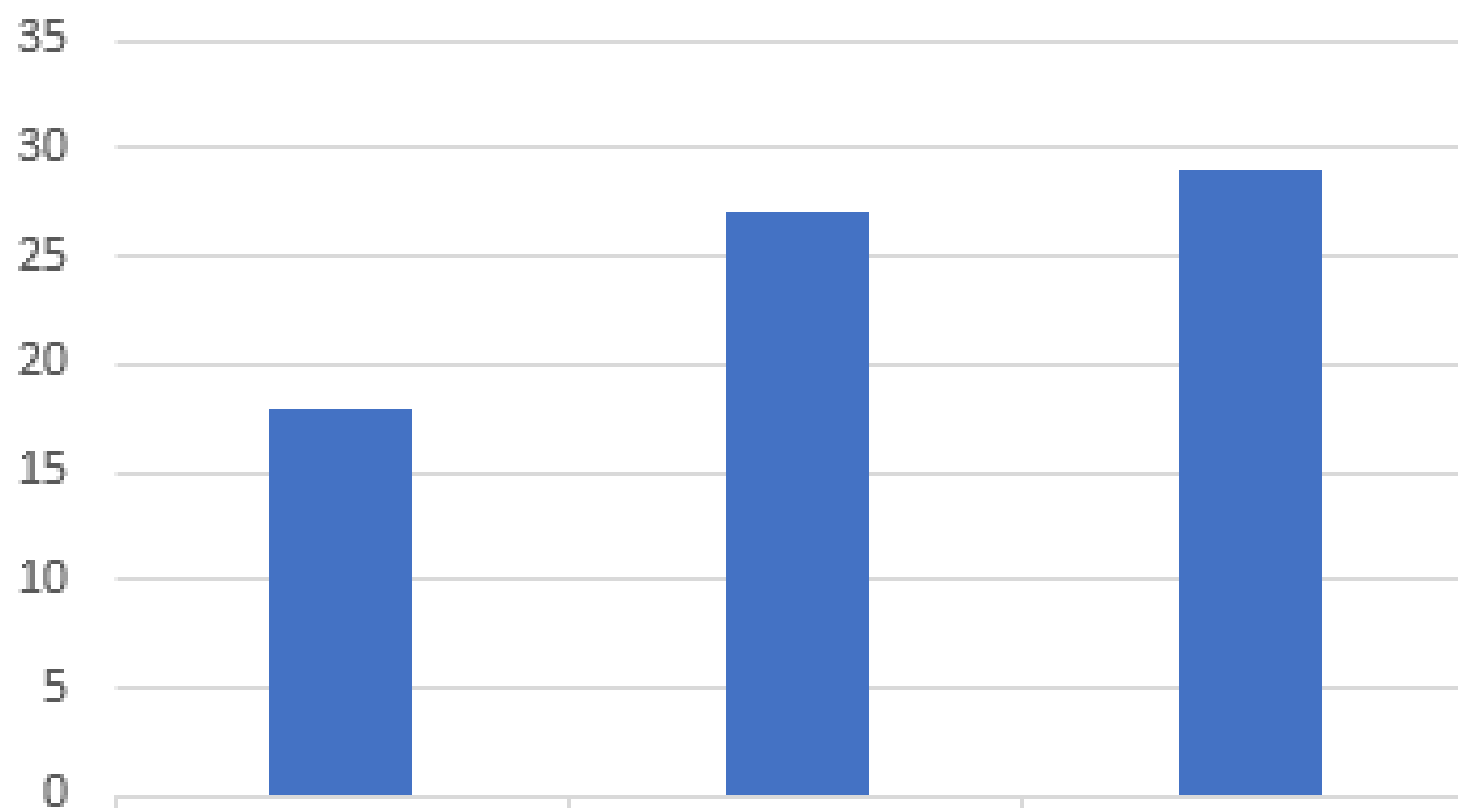
Romania - success rate for nationals (IF/PF only)



Romania - participation of nationals by action



Romania - participation of nationals, by FP/Year



■ Projects

2021

2022

2023

HORIZON

18

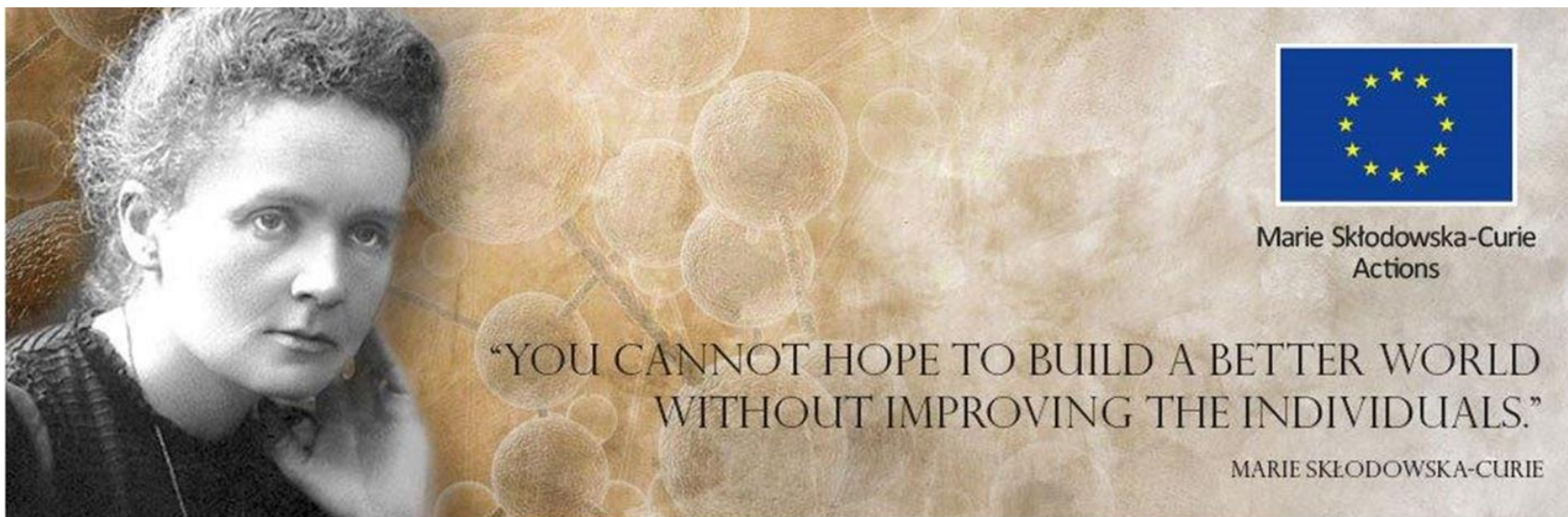
27


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European
Commission

Thank you!





Marie Skłodowska-Curie
Actions

“YOU CANNOT HOPE TO BUILD A BETTER WORLD
WITHOUT IMPROVING THE INDIVIDUALS.”

MARIE SKŁODOWSKA-CURIE