

# **RADNEXT Second Annual Meeting**

## **Research Infrastructure calls in Horizon Europe Work Programme 2023-2024**

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RADNEXT PMO member (administrative and financial follow-up)

10 May 2023

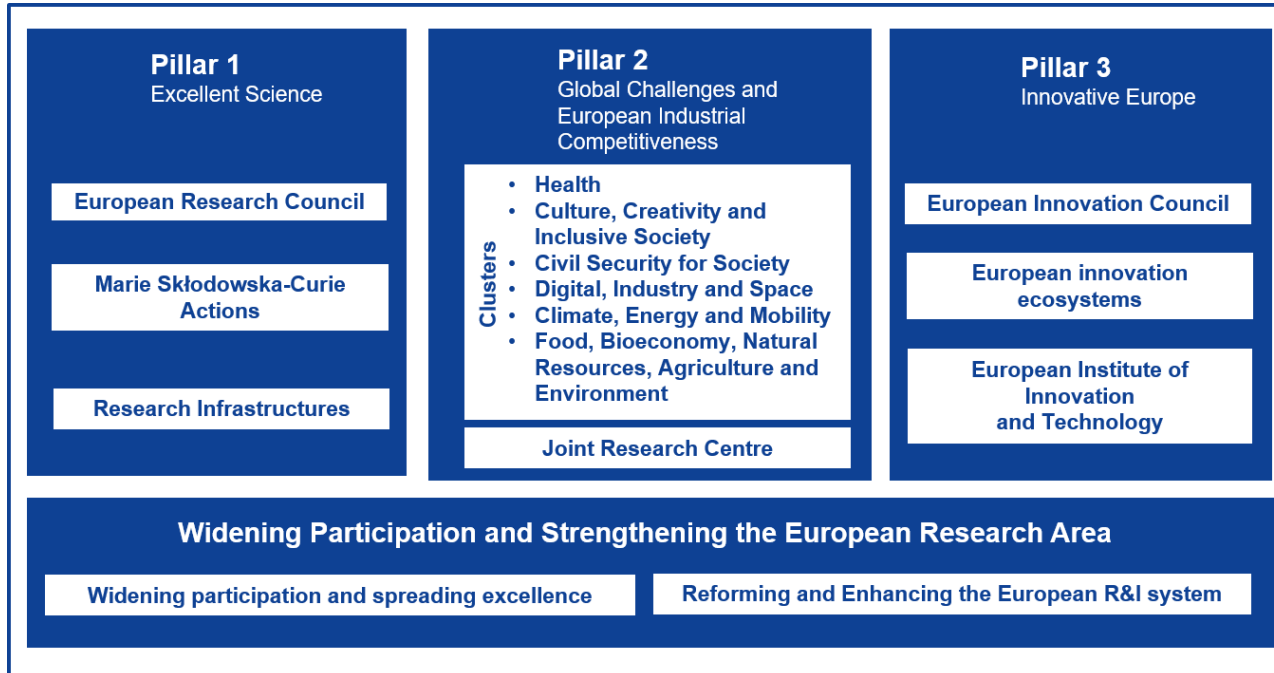
<https://indico.cern.ch/event/1213492/>



# Agenda

- Horizon Europe in a nutshell
- Work Programme 2023-2024: where to get it
- Work Programme 2023-2024: Research Infrastructure overview
- INFRADEV
- INFRASERV
- INFRATECH
- Work Programme 2023-2024: A glimpse of MSCA-DN
- Concluding messages

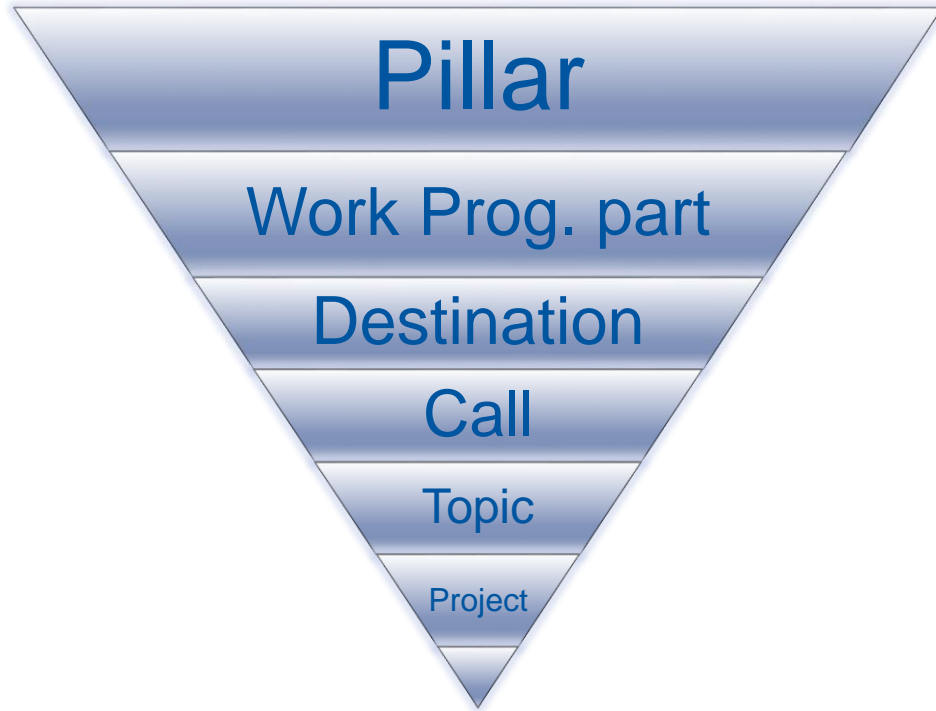
# Horizon Europe in a nutshell (1/2)



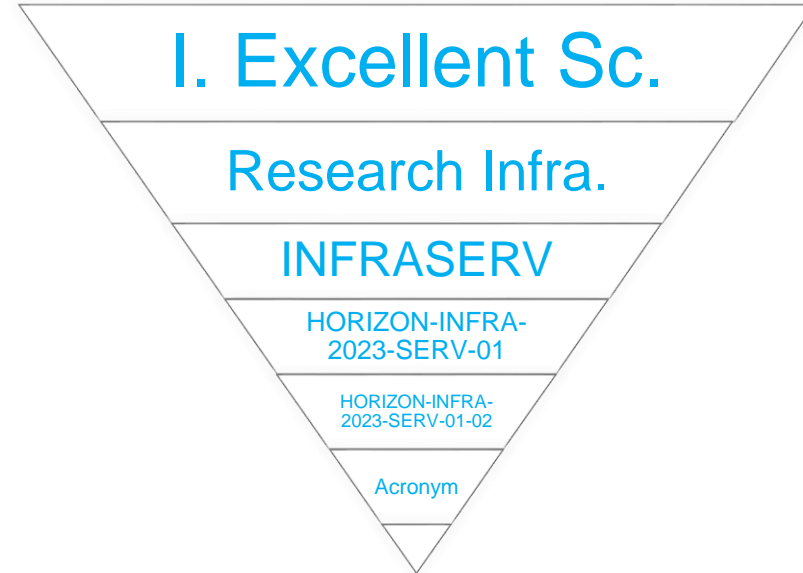
**FP9:** 9th framework programme for **research and innovation** funded by EU

**€ 95.5 billion** over 7 years: **2021 – 2027**

# Horizon Europe in a nutshell (2/2)



## Example:



# Work Programme 2023-2024: Where to get it?

## EC Portal: “Funding and tender opportunities”

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home>

- Support
  - Guidance and Manuals
  - Reference Documents

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/how-to-participate/reference-documents>

The screenshot displays the European Commission's 'Funding & tender opportunities' portal. The header includes the European Commission logo and the text 'Single Electronic Data Interchange Area (SEDIA)'. The main navigation bar contains 'Manage my area', 'SEARCH FUNDING & TENDERS', 'HOW TO PARTICIPATE', 'PROJECTS & RESULTS', 'WORK AS AN EXPERT', and 'SUPPORT'. The left sidebar shows 'My Person Profile', 'Grants', 'My Proposal(s)', 'My Project(s)', and 'My Formal Notification(s)'. The main content area is titled 'Horizon Europe (HORIZON)' and features a 'Programming period' dropdown menu set to '2021-2027'. Below this is a search filter for 'Horizon Europe (HORIZON)' with a 'Clear filter' button. The 'Reference Documents' section is active, showing a list of documents under the 'HE Main Work Programme 2023-2024' category. A red arrow points to the list of documents.

European Commission | Funding & tender opportunities  
Single Electronic Data Interchange Area (SEDIA)

Manage my area | SEARCH FUNDING & TENDERS | HOW TO PARTICIPATE | PROJECTS & RESULTS | WORK AS AN EXPERT | SUPPORT

My Person Profile  
Grants  
My Proposal(s)  
My Project(s)  
My Formal Notification(s)

Horizon Europe (HORIZON)

Programming period  
2021-2027

Horizon Europe (HORIZON) X  
Clear filter

Reference Documents

Grants  
This page includes reference documents of the programmes managed on the EU Funding & Tenders portal starting grant agreements and guides for specific actions.  
Please select the programme to see the reference documents.

Procurement  
Reference Documents related to tendering opportunities are published on TED eTendering in the calls for tenders.

Filter

- Legislation
- Work programme & call documents
  - 2021-2022
  - 2023-2024
    - HE Main Work Programme 2023-2024
      - HE and Euratom Work Programme on Horizontal Expenditure 2023-2024
        - 1. General introduction v2.0
        - 2. Marie Skłodowska-Curie Actions
        - 3. Research Infrastructures v2.0
        - 4. Health v2.0
        - 5. Culture, creativity and inclusive society
        - 6. Civil Security for Society v2.0
        - 7. Digital, Industry and Space v2.0

# Work Programme 2023-2024: Congrats, you have it! Now what?

## Page 1



EN

Horizon Europe

Work Programme 2023-2024

3. Research Infrastructures

(European Commission Decision C(2023) 2178 of 31 March 2023)

## Page 2

Horizon Europe - Work Programme 2023-2024  
Research Infrastructures

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# Work Programme 2023-2024: Research Infrastructure overview

## Five destinations:

- **INFRADEV**: Developing, consolidating and optimising the European research infrastructures landscape, maintaining global leadership
- **INFRAEOSC**: Enabling an operational, open and fair EOSC ecosystem
- **INFRASERV**: Research infrastructure services to support health research, accelerate the green and digital transformation, and advance frontier knowledge
- **INFRATECH**: Next generation of scientific instrumentation, tools and methods and advanced digital solutions
- **INFRANET**: Network connectivity in research and education - enabling collaboration without boundaries

**Overall budget: 654M€** (320M€ in 2023; 334M€ in 2024)

[https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-3-research-infrastructures\\_horizon-2023-2024\\_en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-3-research-infrastructures_horizon-2023-2024_en.pdf)

# Work Programme 2023-2024: Research Infrastructure overview

## Five destinations:

- **INFRADEV:** Developing, consolidating and optimising the European research infrastructures landscape, maintaining global leadership
- **INFRAEOSC:** Enabling an operational, open and fair EOSC ecosystem
- **INFRA SERV:** Research infrastructure services to support health research, accelerate the green and digital transformation, and advance frontier knowledge
- **INFRA TECH:** Next generation of scientific instrumentation, tools and methods and advanced digital solutions
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# INFRADEV (0/3)

## Developing, consolidating and optimising the European research infrastructures landscape, maintaining global leadership



EN

Horizon Europe

Work Programme 2023-2024

3. Research Infrastructures

(European Commission Decision C(2023) 2178 of 31 March 2023)

Horizon Europe - Work Programme 2023-2024  
Research Infrastructures

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Horizon Europe - Work Programme 2023-2024  
Research Infrastructures

### DESTINATION – DEVELOPING, CONSOLIDATING AND OPTIMISING THE EUROPEAN RESEARCH INFRASTRUCTURES LANDSCAPE, MAINTAINING GLOBAL LEADERSHIP (INFRADEV)

Over recent years, the European Commission, Member States (MS) and Associated Countries (AC) have been closely collaborating, in particular within the European Strategy Forum on Research Infrastructures (ESFRI), to develop an integrated and efficient ecosystem of research infrastructures (RIs) in Europe, which encompasses single-sited facilities, distributed facilities integrating resources across the European Research Area, as well as networks of national facilities and which serves researchers and engineers in all S&T fields, from basic to applied research. To facilitate integration and pooling of resources for the development of new capacities, a legal instrument has also been developed at European level, the European Research Infrastructure Consortium (ERIC) that provides favourable conditions for the establishment and operation of large European infrastructures supported jointly by several MSs and ACs as well as by third countries. While Member States remain central in the development and financing of public RIs, the Union and ESFRI play a catalysing and leveraging role in driving the integration between national efforts.

The challenges for the near future are to consolidate and optimise the European Research Infrastructure landscape and enhance its capacity to support frontier research and address the emerging and new scientific and societal objectives associated with the transition towards a sustainable and resilient Europe. In addition, there is the need to define and implement an effective and sound RI strategy in Europe, in close cooperation with ESFRI, MSs and ACs, which is complemented by and interlocks with the long-term ambition of creating an integrated Technology Infrastructure (TI) landscape, the latter is supported in Pillar II of Horizon Europe Programme (HE). Such a strategy would also help in exploiting synergies between RI and TI financed from Horizon and massive investments in infrastructures from ERDF.

This destination aims to create a world-leading coherent, responsive, sustainable and attractive RI landscape in Europe, by reducing its fragmentation at European, national and regional level, ensuring coordination of efforts and fostering alignment of priorities among MSs and ACs, connecting RIs to the European Open Science Cloud (EOSC), and which is able to support national and regional R&I ecosystems. The support to a European strategy for Research Infrastructures as well as activities to enhance the role of RIs for international cooperation and science diplomacy will also be covered under this destination.

#### Expected impact

Proposals for topics under this destination should set out a credible pathway to contributing to one or several of the following impacts:

- Disruptive research and breakthrough science and innovation through cutting-edge, interconnected and sustainable Research Infrastructures;

# INFRADEV (1/3)

## Developing, consolidating and optimising the European research infrastructures landscape, maintaining global leadership

### Expected impact:

- Disruptive research and breakthrough science and innovation through cutting-edge, interconnected and sustainable Research Infrastructures;
- Strengthened scientific excellence and performance and efficiency of the European Research Area, increasing its attractiveness to researchers from all over the world;
- Coordinated research infrastructure capacity among countries and regions, also by exploiting possibilities given by the smart specialisation processes;
- Reinforced R&I capacities enabling systemic changes needed for a truly transformative societal and economic recovery and a strengthened resilience of critical sectors, as outlined in the Recovery Plan;
- Improved European response, in cooperation with international players, to emerging socio-economic and related scientific and technological challenges at global level.

The following call(s) in this work programme contribute to this destination:

Call	Budgets (EUR million)		Deadline(s)
	2023	2024	
HORIZON-INFRA-2023-DEV-01	79.55	18.00	09 Mar 2023
HORIZON-INFRA-2024-DEV-01		23.00	12 Mar 2024
Overall indicative budget	79.55	41.00	

# INFRADEV (2/3)

## Developing, consolidating and optimising the European research infrastructures landscape, maintaining global leadership

**Topic of interest: HORIZON-INFRA-2024-DEV-01-03**

### **Consolidation of the RI landscape**

Individual support for evolution, long term sustainability and emerging needs of pan-European research infrastructures

#### ➤ **Expected Outcome:**

- ✓ better structured and strengthened European research infrastructure landscape;
- ✓ new services available to a wider user community, including participants in other parts of Horizon Europe, allowing to better tackle scientific and societal challenges;
- ✓ increased capacity to address EU policy priorities and/or support EU industry;
- ✓ reinforced global competitiveness of the European Research Area;
- ✓ reduction of environmental (including climate-related) impacts as well as optimisation of resource and energy consumption integrated through the full life cycle of research infrastructures;
- ✓ increased long-term sustainability of European research infrastructures.

Topics	Type of Action	Budgets (EUR million)	Expected EU contribution per project (EUR million) <sup>32</sup>	Indicative number of projects expected to be funded
		2024		
Opening: 06 Dec 2023 Deadline(s): 12 Mar 2024				
HORIZON-INFRA-2024-DEV-01-01	RIA	14.00	1.00 to 3.00	5
HORIZON-INFRA-2024-DEV-01-02	CSA	1.50	1.00 to 1.50	1
HORIZON-INFRA-2024-DEV-01-03	RIA	8.00	2.00 to 4.00	2
Overall indicative budget		23.50		

→ Notes on scope and eligibility specificities:  
cf. next slide

# INFRADEV (3/3)

## Developing, consolidating and optimising the European research infrastructures landscape, maintaining global leadership

Topic of interest: HORIZON-INFRA-2024-DEV-01-03

➤ **Notes on eligibility condition:**

- ✓ Due to the scope of this topic, consortia must include at least one of the [ESFRI Landmark](#) or [European Research Infrastructures Consortia \(ERICs\)](#).
- ✓ **The funding rate is 80%** of the eligible costs in order to prove the endorsement by the RI funders, which should provide the remaining share, of the developments covered by the Grant Agreements and foster their sustainability.

➤ **Notes on scope:**

- ✓ Proposals should explain any synergies and complementarities with previous or current EU grants.
- ✓ Specific attention should be given, where relevant, to the greening of technologies and methodologies used by the research infrastructure, to the interaction with industry/SMEs, to the fostering of the innovation potential – including the social innovation potential – of the infrastructures, and to their integration into local, regional and global innovation ecosystems.

# INFRASERV (1/2)

## Research infrastructure services to support health research, accelerate the green and digital transformation, and advance frontier knowledge

### Expected impact:

- Reinforced research infrastructures capacity to provide at scale and across the EU services to support excellent research to address societal challenges, and Horizon Europe missions and partnerships' objectives;
- Enhanced and increased society's long-term and consistent problem-solving capacity and evidence-based policy making in areas linked to health, and the green and digital transition, including a better understanding of socio-economic implications, through the provision of innovative, customised and efficient RI services;
- New discoveries and knowledge breakthroughs enabled by access provision to the best and in some cases unique state-of-the-art RIs;
- A new generation of researchers trained to optimally exploit all the essential and advanced tools for their research;
- Cross-fertilisation and a wider sharing of knowledge and technologies across disciplines and between academia and industry and businesses.

Call	Budgets (EUR million)		Deadline(s)
	2023	2024	
HORIZON-INFRA-2023-SERV-01	142.10	14.90	09 Mar 2023
Overall indicative budget	142.10	14.90	

**Funding includes TA activities**

→ *Similar INFRASERV call expected in WP25-27*

# INFRASERV (2/2)

Research infrastructure services to support health research, accelerate the green and digital transformation, and advance frontier knowledge

Topic of interest: HORIZON-INFRA-2023-SERV-01-01

Research infrastructure services to enable R&I addressing main challenges and EU priorities

→ Enhancing the EU capacity for the development of semiconductors is listed as one of the EU priorities!

➤ **Expected Outcome:**

For all areas:

- ✓ provision of innovative, customised and efficient RI services enhancing and increasing society's long-term and consistent problem-solving capacity and evidence-based policy making;

**For RI services to enhance the EU capacity for the development of semiconductors:**

- ✓ enabling research and innovation in support to the competitiveness and autonomy of the European semiconductor industry and to the European Chips Act;
- ✓ wider access for academic and industrial researchers to enhanced and further integrated RI services in the field;
- ✓ transfer of knowledge and technologies between academic-research institutions and the semiconductor industry in order to advance further the digital transition.

Topics	Type of Action	Budgets (EUR million)		Expected EU contribution per project (EUR million) <sup>63</sup>	Indicative number of projects expected to be funded
		2023	2024		
Opening: 06 Dec 2022 Deadline(s): 09 Mar 2023					
HORIZON-INFRA-2023-SERV-01-01	RIA	105.00	11.00	8.00 to 14.50	8
HORIZON-INFRA-2023-SERV-01-02	RIA	25.10	3.90	8.00 to 14.50	2
HORIZON-INFRA-2023-SERV-01-03	COFUND	12.00		2.00 to 5.00	3
Overall indicative budget		142.10	14.90		

**Deadline already past.**

→ Similar INFRASERV calls expected in WP25-27

# INFRATECH (1/3)

## Next generation of scientific instrumentation, tools and methods and advanced digital solutions

### Expected impact:

- Enhanced global competitiveness and technological excellence of the EU and Associated Countries in an extremely fast-moving environment through investments into the development, of forward-looking technical instruments and tools for European RIs.
- Enhanced competitiveness of EU and Associated Countries industry through co-development with industrial actors of advanced RI technologies and technology transfer;
- Opening up of new areas of research and development of new industrial applications/products;
- Development of skills of RI staff aligned with the advancements of the RI technologies;
- Trans-disciplinarity, cross-fertilisation and a wider sharing of knowledge and technologies between academia and industry;
- Wider use of AI in research and enhanced data-driven research across the EU and Associated Countries.

Call	Budgets (EUR million)		Deadline(s)
	2023	2024	
HORIZON-INFRA-2023-TECH-01	25.00		09 Mar 2023
HORIZON-INFRA-2024-TECH-01		136.00	12 Mar 2024
Overall indicative budget	25.00	136.00	

# INFRATECH (2/3)

## Next generation of scientific instrumentation, tools and methods and advanced digital solutions

### Topic of interest: HORIZON-INFRA-2024-TECH-01-01

- **R&D for the next generation of scientific instrumentation, tools, methods, solutions for RI upgrade**
- **Expected Outcome:**
  - ✓ enhanced scientific competitiveness of European research infrastructures;
  - ✓ enhanced RI capacities to address research challenges and EU policy priorities;
  - ✓ foundations for the development of innovative companies;
  - ✓ increased collaboration of research infrastructures with universities, research organisations and industry;
  - ✓ increase of the technological level of industries through the co-development of advanced technologies for research infrastructures and creation of potential new markets;
  - ✓ integration of research infrastructures into local, regional and global innovation systems and promotion of entrepreneurial culture.

Topics	Type of Action	Budgets (EUR million)	Expected EU contribution per project (EUR million) <sup>92</sup>	Indicative number of projects expected to be funded
		2024		
Opening: 06 Dec 2023 Deadline(s): 12 Mar 2024				
HORIZON-INFRA-2024-TECH-01-01	RIA	62.00	5.00 to 10.00	7
HORIZON-INFRA-2024-TECH-01-02	RIA	5.00	Around 5.00	1
HORIZON-INFRA-2024-TECH-01-03	RIA	45.00	Around 15.00	3
HORIZON-INFRA-2024-TECH-01-04	RIA	24.00	Around 12.00	2
Overall indicative budget		136.00		

→ Notes on scope and eligibility specificities:  
cf. next slide



# INFRATECH (3/3)

## Next generation of scientific instrumentation, tools and methods and advanced digital solutions

### Topic of interest: HORIZON-INFRA-2024-TECH-01-01

#### ➤ Notes on eligibility condition:

- ✓ Due to the specific nature of this topic, consortia must include at least 3 different research infrastructures, each of them being an ESFRI infrastructure<sup>93</sup>, and/or a European Research Infrastructures Consortium <sup>94</sup> (ERIC) or another research infrastructure of European interest (i.e. a research infrastructure which is able to attract users from EU or associated countries other than the country where the infrastructure is located). Such research infrastructures, and the beneficiaries that own/operate them, must be explicitly identified in the proposals.
- ✓ Proposals may include Pre-commercial procurement (PCP) subcontracting activities.

#### ➤ Notes on scope:

- ✓ Proposals should ensure complementarity with actions funded under the previous 2022 call (topic HORIZON-INFRA-2022-TECH-01-01 in the 2021-2022 work programme), targeting different instrumentation, tools, methods and solutions.

# Work Programme 2023-2024: A glimpse of MSCA-DN

## Marie-Skłodowska Curie Action, Doctoral Networks

Doctoral Networks implement **doctoral programmes**, by partnerships of **universities, research institutions and infrastructures, businesses** including **SMEs**, and other socio-economic actors from different countries across Europe and beyond.

These doctoral programmes will respond to well-identified needs in various research and innovation areas, expose the researchers to the **academic and non-academic sectors**, and offer **research training**, as well as **transferable skills and competences** relevant for **innovation and long-term employability**.

[https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-2-msca-actions\\_horizon-2023-2024\\_en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-2-msca-actions_horizon-2023-2024_en.pdf)

# Work Programme 2023-2024: A glimpse of MSCA-DN

## Expected impact:

- Strengthen Europe's human capital base in R&I by **training highly-skilled doctoral candidates**;
- Improve the **attractiveness of researchers' careers** notably through better working and employment conditions of doctoral candidates in Europe;
- Enhance talent and knowledge circulation across the R&I landscape, through **international, inter-sectoral and interdisciplinary mobility**;
- Increase Europe's attractiveness as a leading research destination;
- Enhance the quality of R&I contributing to Europe's sustainable competitiveness;
- Establish sustainable **collaboration between academic and non-academic organisations**;
- Foster the culture of open science, innovation and entrepreneurship.

**Overall budget: 886M€** (435M€ in 2023; 451M€ in 2024)

# Work Programme 2023-2024: A glimpse of MSCA-DN

## Three types of Doctoral Networks:

### ➤ Standard Doctoral Networks

### ➤ Industrial Doctorates

They train PhD candidates who wish develop their skills and step outside academia, in particular in industry and business. Individual participants must be enrolled in a doctoral programme and jointly supervised by the academic and non-academic partners.

### ➤ Joint Doctorates

They provide a highly integrated type of international, inter-sectoral and interdisciplinary collaboration in doctoral training leading to a joint doctoral degree or multiple doctoral degrees awarded by the participating institutions. PhD candidates must be enrolled in a joint programme and be jointly supervised.

Call	Budgets (EUR million)		Deadline(s)
	2023	2024	
HORIZON-MSCA-2023-DN-01	434.80		28 Nov 2023
HORIZON-MSCA-2024-DN-01		451.15	27 Nov 2024
Overall indicative budget	434.80	451.15	

Topics	Type of Action	Budgets (EUR million)
		2023
Opening: 30 May 2023 Deadline(s): 28 Nov 2023		
HORIZON-MSCA-2023-DN-01-01	TMA Doctoral Networks	434.80
HORIZON-MSCA-2023-DN-01-01	TMA Doctoral Networks - Industrial Doctorates	
HORIZON-MSCA-2023-DN-01-01	TMA Doctoral Networks - Joint Doctorates	
Overall indicative budget		434.80

Topics	Type of Action	Budgets (EUR million)
		2024
Opening: 29 May 2024 Deadline(s): 27 Nov 2024		
HORIZON-MSCA-2024-DN-01-01	TMA Doctoral Networks	451.15
HORIZON-MSCA-2024-DN-01-01	TMA Doctoral Networks - Industrial Doctorates	
HORIZON-MSCA-2024-DN-01-01	TMA Doctoral Networks - Joint Doctorates	
Overall indicative budget		451.15

# Concluding messages

- Get familiar with Horizon Europe and its Work Programmes
- Read and re-read before to apply
- Read again (and again) during application
- Network, discuss, engage with your communities
  
- Go one step further (ahead): defend your needs before the WP is written and approved

# Thanks for your attention!



*Image Source: CERN*