BOOST

Smart Innovation Ecosystems

BOOSTing European Collaboration among Industry 4.0 stakeholders

16.04.2024

Bulgarian Business Forums

TRANSILVANIA IT CLUSTER

North-West Regional Development Agency

VEJLE KOMMUNE

TARTU SCIENCE PARK
Home of Business

Clúster Digital

BOOST
Smart Innovation Ecosystems

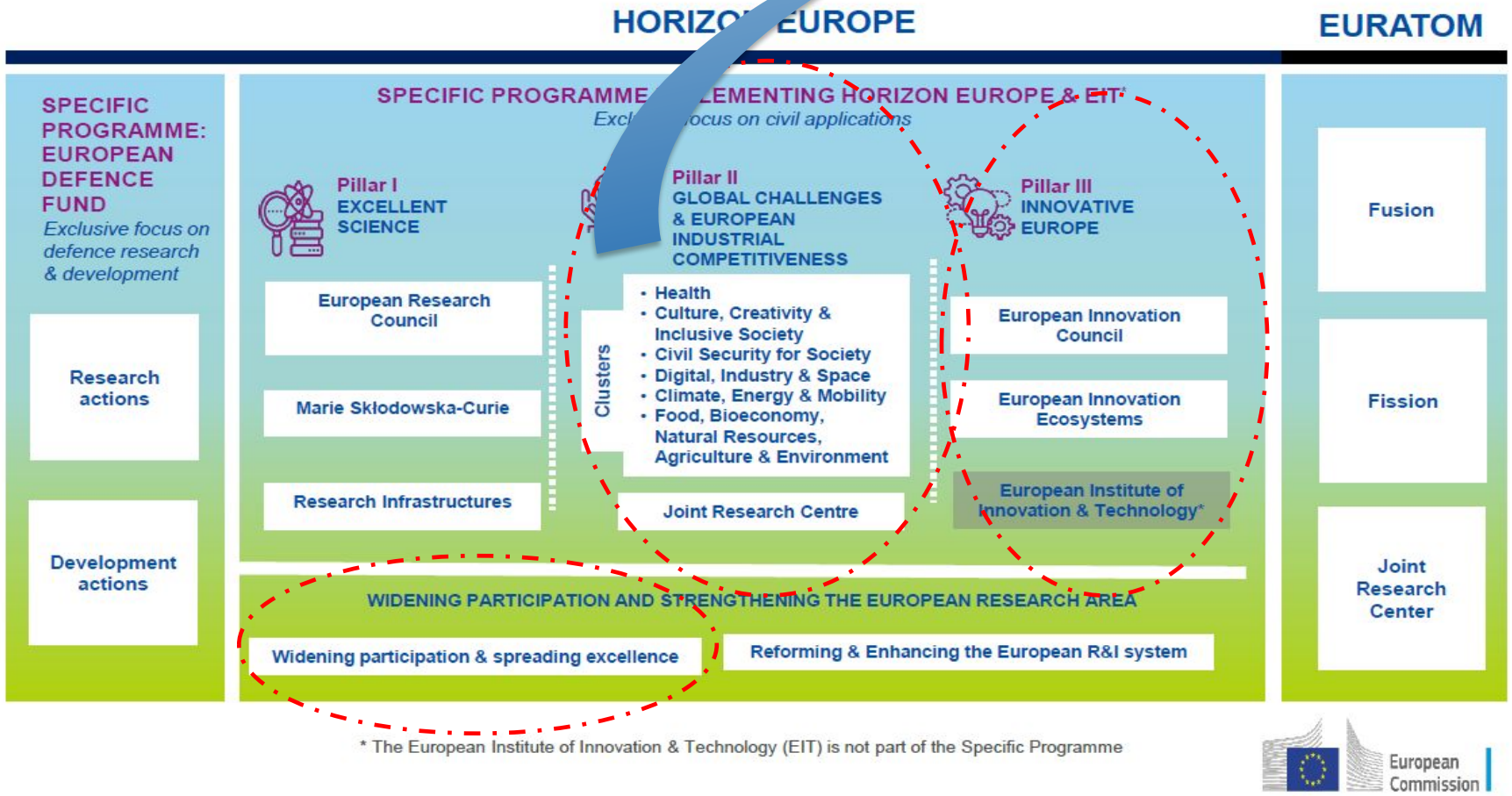
Funding opportunities
Supporting innovation

Digital – Green - Industry 4.0

enterprise europe network

BOOST
Smart Innovation Ecosystems

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Cluster 4 - Digital, Industry and Space

1. Climate neutral, circular and digitised production
2. increased autonomy in key strategic value chains for resilient industry
3. world leading data and computing technologies
4. digital and emerging technologies for competitiveness and fit for the green deal
5. open strategic autonomy in developing, deploying and using global space-based infrastructures, services, applications and data
6. a human-centred and ethical development of digital and industrial technologies

Cluster 5 - Climate, Energy and Mobility

1. Climate sciences and responses
2. Cross-sectoral solutions for the climate transition
3. Sustainable, secure and competitive energy supply -2021-2024
4. Efficient, sustainable and inclusive energy use
5. Clean and competitive solutions for all transport mode
6. Safe, Resilient Transport and Smart Mobility services for passengers and goods

HORIZON EUROPE

TYPES OF PROJECTS in Horizon Europe

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RIA

Research and innovation actions (RIA) — Activities that aim primarily to establish new knowledge or to explore the feasibility of a new or improved technology, product, process, service or solution. This may include basic and applied research, technology development and integration, testing, demonstration and validation of a small-scale prototype in a laboratory or simulated environment.

IA

Innovation actions (IA) — Activities that aim directly to produce plans and arrangements or designs for new, altered or improved products, processes or services. These activities may include prototyping, testing, demonstrating, piloting, large-scale product validation and market replication.

CSA

Coordination and support actions (CSA) — Activities that contribute to the objectives of Horizon Europe. This excludes R&I activities, except those carried out under the 'Widening participation and spreading excellence' component of the programme (part of 'Widening participation and strengthening the European Research Area'). Also eligible are bottom-up coordination actions which promote cooperation between legal entities from Member States and Associated Countries to strengthen the European Research Area, and which receive no EU co-funding for research activities.

Usually minimum 3 partners from 3 different countries

BOOST - 101070737

Horizon Europe CL4 – Cascade funding call

Funded by the European Union

I. MASTER - Open Calls - Master (master-xr.eu)

Cascade funding under HORIZON-CL4-2022-HUMAN-01-19 - eXtended Reality Learning - Engage and Interact (IA)

18/03/2024
31/05/2024

MASTER enhances robotics training in manufacturing with its open **XR** platform. It integrates key functionalities, creating safe and flexible robotic environments with advanced interaction mechanisms. The project delivers rich training content and invites third-party contributions through two Open Calls.

9 month collaborative project, SME as main applicant!

EUR 2.4 mil allocation

EUR 150k

CHALLENGES

Safety and ergonomy in workplace

1. Integrating machine learning methods to VR tools towards accurate layout planning and validation
2. XR-based environment for ergonomics training methods to evaluate and best-practices suggestion
3. Real-time visualization of safety-related information in XR environment to increase operators' safety awareness
4. Open challenge related to improved working conditions in the workplace

Intuitive robot programming

5. XR-based system to program on demand tasks to stationary robots
6. XR-based programming of mobile robots for intralogistics operations
7. Intuitive XR-based robot programming for assembly and packaging tasks
8. Any challenge related to Intuitive robot programming of manufacturing operations

User-friendly HRI methods

- **SME (100%)**
- **Large company (50% financing)**
- **UNIVERSITIES**
- **RESEARCH CENTERS**

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LMS Laboratory for Manufacturing Systems & Automation · VIRTUALWARE · Tekniker Member of Basque Research & Technology Alliance · DFKI · mondragon Lingua · Alecop · Teaching Factory · ESCI European Science Communication Institute

BOOST Smart Innovation Ecosystems

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17/09/2024
21/01/2025

Selection of funding opportunities
HORIZON EUROPE

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Built4People

II. Robotics and other automated solutions for construction, renovation and maintenance in a sustainable built environment

HORIZON-CL5-2024-D4-02-02

100% financed

EUR 4 mil

2

- COMPANIES in ITC, Robotics, Automation
- UNIVERSITIES
- RESEARCH CENTERS
- Innovation Agencies
- CLUSTERS

Scope: development of robotic and automated solutions to support sustainable building construction, renovation and maintenance processes that are less disruptive, cleaner and faster.

Topic: Efficient, sustainable and inclusive energy use

Impact: Increasing energy efficiency in industry and reducing industry's energy dependence, Greenhouse Gas (GHG) and air pollutant emissions through recovery, upgrade and/or conversion of industrial excess (waste) heat and through the integration of renewable energy sources into more efficient and flexible systems for the generation of heat and cold for industrial processes.

BOOST - 101070737

17/09/2024
21/01/2025

Robotics and other automated solutions for construction, renovation and maintenance in a sustainable built environment

Funded by the European Union

European Partnership on 'People-centric sustainable built environment' (Built4People).

Built4People

Topic: Efficient, sustainable and inclusive energy use

- Investigate the use of robotic systems and automation for construction and deep renovation - to reduce time of construction and renovation works, reduce construction errors, facilitate maintenance
- Reach lower construction costs by automation & robotics resulting from increased speed, improved resource efficiency and avoidance of errors.
- robotic and automated design & construction techniques to increase energy efficiency and reduce greenhouse gas emissions from construction and renovation works on-site.
- approaches that use digitally assisted design to improve resource efficiency and safety, reduce waste, and reduce construction time.
- automated technologies for surveying, inspection and monitoring of the site.
- use of automated support to augment workers' capability and safety (e.g., lift robots, exoskeletons, automated construction site monitoring, use of augmented and virtual reality).

Test and validate the prototyped solutions in at least **3 prototypes** to assess the proposed approaches for a variety of buildings typologies: validated in a lab or another relevant environment, both for new construction and renovation.

Activities are expected to achieve TRL 4-5 by the end of the project.

- TRL 4 – technology validated in lab
- TRL 5 – technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies)

BOOST Smart Innovation Ecosystems

BOOST - 101070737

17/09/2024
21/01/2025

Robotics and other automated solutions for construction, renovation and maintenance in a sustainable built environment

Funded by the European Union

European Partnership on 'People-centric sustainable built environment' (Built4People).

Built4People

Expected outcomes:

- Reduction of construction and renovation time on-site (at least 40% reduction)
- Reduction of errors in construction and renovation works
- Improved resource efficiency.
- Reduction of construction and renovation costs.
- Reduction of greenhouse gas emissions resulting from, and improved energy efficiency of the works on-site
- Reduced environmental impact of construction works, including pollution, particulate matter[1] and noise, in the immediate vicinity
- Reduction of waste generated from the works on-site

Technical University of Munich - Chair of Materials Handling, Material Flow, Logistics Organisation Contact

The Chair of Materials Handling, Material Flow, Logistics (fml) sees itself as an open research institution, which wants to contribute significantly to scientific progress in material flow technology and logistics. The research activities focus on intralogistics, crane construction, construction logistics, and bulk goods logistics. For their research and development work, the approx. 50 scientific staff have at their disposal the teaching chair's own test hall and an outdoor test area.

Organisation type	Higher or secondary education establishment	**Type of request**	Expertise offer
Country	Germany	**Request date**	28 Apr 2023
Status	Published		

CYBERBOTICS SARL Organisation Contact

Cyberbotics Ltd. develops the Webots open-source robot simulation software and collaborates on research projects involving digital twins, cloud/web-based robot simulations, deep learning, HPC, automobile and traffic simulation, etc. See OpenDR and OPTIMA projects. Our state-of-the-art tools are especially well suited for EU research: they facilitate collaborative research, integration, open-science dissemination respecting FAIR principles and project review. More info at https://cyberbotics.com.

Organisation type	Small or medium-size enterprise	**Type of request**	Expertise offer
Country	Switzerland	**Request date**	25 May 2023
Status	Published		

Topic
Robotics and other automated solutions for construction, renovation and maintenance in a sustainable built environment (Built4People Partnership)
ID
HORIZON-CL5-2024-D4-02-02
Expertise offers
91
Expertise requests
4

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BOOST Smart Innovation Ecosystems

Selection of Horizon Europe calls

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III. Expanding Academia-Enterprise Collaborations

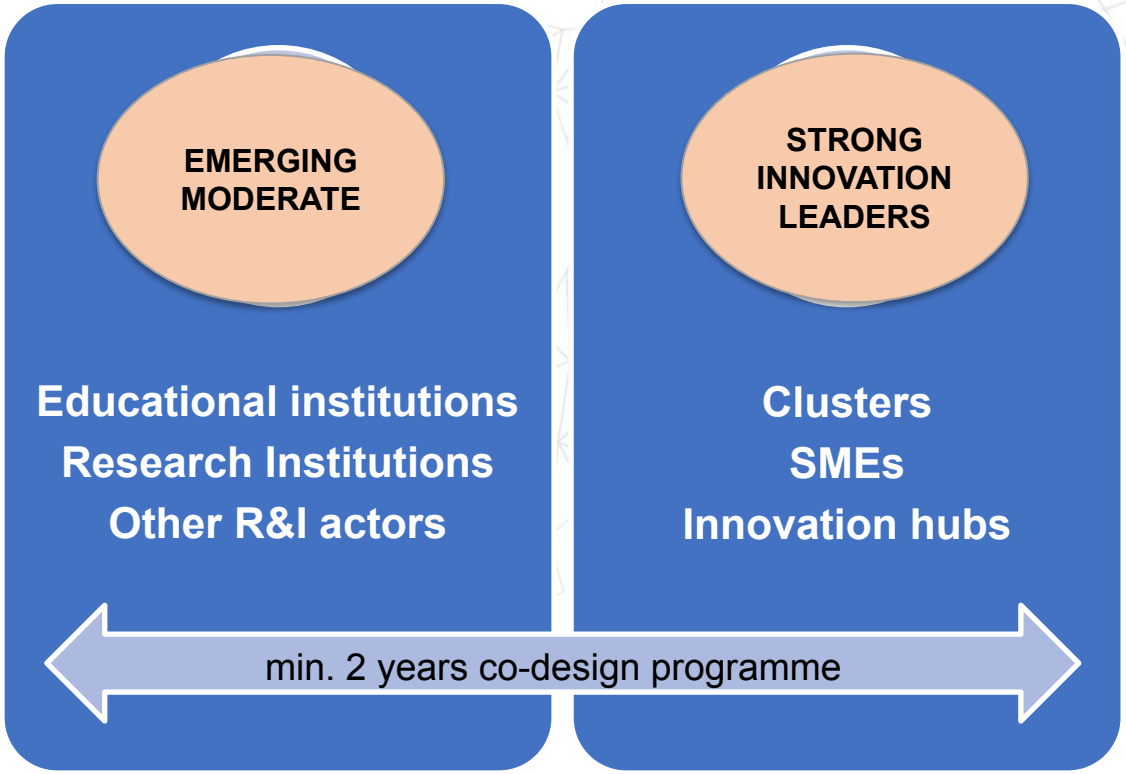
06/06/2024
19/09/2024

100% financed

5

EUR 500k

Interconnected Innovation Ecosystems - HORIZON-EIE-2024-CONNECT-02-01



RESEARCH AND INNOVATION:
vocational schools, higher education institutions, research performing organisations, knowledge and technology transfer offices and associations
PUBLIC AUTHORITIES in the field of education and employment
Innovation agencies
SMEs, deep tech companies, start-ups and industry,
CLUSTERS
EIC, EIT
Students and researchers

Expanding Academia-Enterprise Collaborations

Funded by the European Union

Objectives:

- foster the creation of *innovation ecosystems with educational and research institutions*, or strengthen their existing links
- outline activities for *supporting educational and research institutions to take a greater entrepreneurial ro*le, e.g. through boosting innovation and entrepreneurship within their activities
- enhance *collaborations between businesses with R&I actors in educational and research institutions*.
- educational and research institutions' assets and vision are articulated clearly and in line with smart specialisation strategies, so they can easily be integrated into innovation ecosystems and economic value chains
- leverage best practices of the private and public sector in the EU's well performing innovation hubs

Activities:

- Engagement of *business experts* to networking activities and *building innovation ecosystem around the university/research institution*;
- Engagement of *students, graduates, researchers and workforce* from various disciplines and departments to the innovation ecosystem, with a focus on *networking and building networks around educational and research institutions* as centres of gravity, and engaging in companies' structures and business processes;
- Engagement of *students and researchers in start-ups* working with various actors from the innovation ecosystem to experience what starting and running a venture entails (such as raising funds, pitching events, creating, editing, and adapting business models in the creation process from idea to market, etc.)
- Creation of *synergies* between students, graduates, researchers, innovators, education institutes, research performing organisations, and business partners, locally, at EU level, and globally targeting the creation of networks and communities of practices in the field of deep tech to stimulate the market uptake of results and new technologies, as well as their co-creation.

Expanding Academia-Enterprise Collaborations

Funded by the European Union

OUTCOMES

- *Improved integration of research institutions, Higher Education Institutions, vocational schools, and similar organisations into Europe's innovation ecosystems by establishing better links with start-ups and start-up networks, accelerators and incubators, business angels and investor communities*;
- Improved flows of knowledge, skills, and talents between educational institutions and other innovation ecosystem actors at various levels of development, including in the deep tech field in line with the New European Innovation Agenda;
- *Improved skills* of all involved ecosystem actors to increase innovation potential, inter-sectoral mobility, and market uptake of new technologies;
- Improved connections of educational institutions to high-quality remote testing, validation, and up-scaling of innovations delivered by research and technology infrastructures across the EU;
- *Improved competence* of students, graduates, researchers, and workforce to launch, run, and lead successful and profitable start-ups, including in the deep tech field;
- Enhanced availability of local talents equipped with skills to support business acceleration and digitalisation;
- *Enhanced entrepreneurial activity* in developing innovation ecosystems and their upscaling and interconnectedness across the EU supported by citizens and local initiatives in order to build innovative solutions to current and future challenges;
- *Increased engagement and connectedness with other ecosystem actors (e.g. other educational institutions, Technology Transfer Offices, Research and Technology Organisations, local and regional enterprises, private companies, start-ups, early-stage companies, accelerators, incubators, etc.) within and between regions;*
- Increased youth (self) employability and gender balance in collaborations.

Selection of Horizon Europe calls

Funded by the European Union

IV. ERA Talents

WIDERA -HORIZON-WIDERA-2024-TALENTS-03-01

11/04/2024
26/09/2024

100% financed

Allocation of **EUR 40 mil**

20

EUR 2 mil

Targeted for Widening countries

Boost interoperability of careers and employability of research and innovation talents across sectors

Innovative inter-sectoral collaboration in research and innovation through cross-sectoral exchange of staff

Joint training and mobility methodology
Mutual learning exercises

ACADEMIA

Educational institutions
Research Institutions
Other R&I actors

NON-ACADEMIA

Clusters
SMEs
Innovation hubs

4 years programme

RESEARCH AND INNOVATION: vocational schools, higher education institutions, research performing organisations, knowledge and technology transfer offices and associations

Innovation agencies

SMEs, deep tech companies, start-ups and industry, CLUSTERS

ERA Talents – WIDERA – HORIZON EUROPE

Funded by the European Union

- **Strengthening academia/non-academia cooperation,** and reinforcing innovation ecosystems, focusing on establishment of public-private links, private sector involvement booster, activities for the transfer of researcher know-how to businesses or public and social sectors, as well as activities that foster closer involvement of business sector staff in training of academic staff. To include social innovators, consistent with the title of this bullet point and the rest of the call description.
- **Improving training and lifelong learning** for researchers, innovators, and other research and innovation talents, characterised by opportunities for upskilling and interdisciplinary skill development. In particular, (i) training for specific in-demand skills by industry or other non-academic sectors in specific thematic areas, such as Missions and Partnerships, greening of society, to improve employability and interoperability, and (ii) training to build R&I support capacity ('other research and innovation talents'), such as knowledge brokers, data stewards, research managers, research infrastructure operators, knowledge valorisation officers, etc;
- **Boosting researcher entrepreneurship,** focused on development of entrepreneurial skills (e.g., business economics, business creation, knowledge valorisation, intellectual property rights and other relevant legal framework) for researchers and commercialisation or other valorisation training and support for researchers, through preparatory activities for entrepreneurship and support for researcher start-up creation.

Selection of Horizon Europe calls

Funded by the European Union

EUREKA Programmes

- funding instrument that supports **innovative SMEs** and project partners (large companies, universities, research organisations and other types of organisations) by funding *international collaborative R&D and innovation projects*.

Among the **objectives** of interest:

- stimulating companies, especially SMEs, to enter the international and European market with innovative products, services and technologies;
- strengthening the collaboration between SMEs and research organizations (research institutes, universities, etc.)

Eligible activities:

- industrial research;
- experimental development (minimum 50% of the value financed from the state budget of the project);
- innovation activities (personnel costs, logistics/equipment, travel but not for grant companies, 20% indirect costs)

! Each country has own national authority, rules and co-financing might differ!
! Each country has different budget allocation [ex: RO – 1.2 mil EUR]

Selection of Horizon Europe calls

Funded by the European Union

V. EUREKA Network

Eureka | network-projects-all-year (eurekanetwork.org)

01/01/2020
31/12/2025

eureka innovation beyond borders

Using the SmartSimple portal

- The project idea must represent international cooperation in the form of a specific project - must include at least 2 independent legal entities from at least 2 Eureka countries.
- No single organisation or country can be responsible for more than 70% of the project budget
- The project must be directed at researching or developing a product, process or service.
- The project must have a civilian purpose.

Financing:

- Differs in each country for SMEs: RO - max. 50% of the project budget (excluding subcontracting); FR – 40%
- For research organisations: 0
- Grant differs in each country: RO partners / project – 300.000 EUR

Selection of Horizon Europe calls

Funded by the European Union

VI. EUREKA Eurostars

https://myeurekaproject.org

Dedicated to SMEs carrying out R&D/innovation activities, by collaborating in R&D and innovation with international partners to develop new products, processes and services for European and global markets. Partners can be other companies or research organizations.
The mail applicant is an SME; participation of at least 2 entities from 2 different countries

Financing:

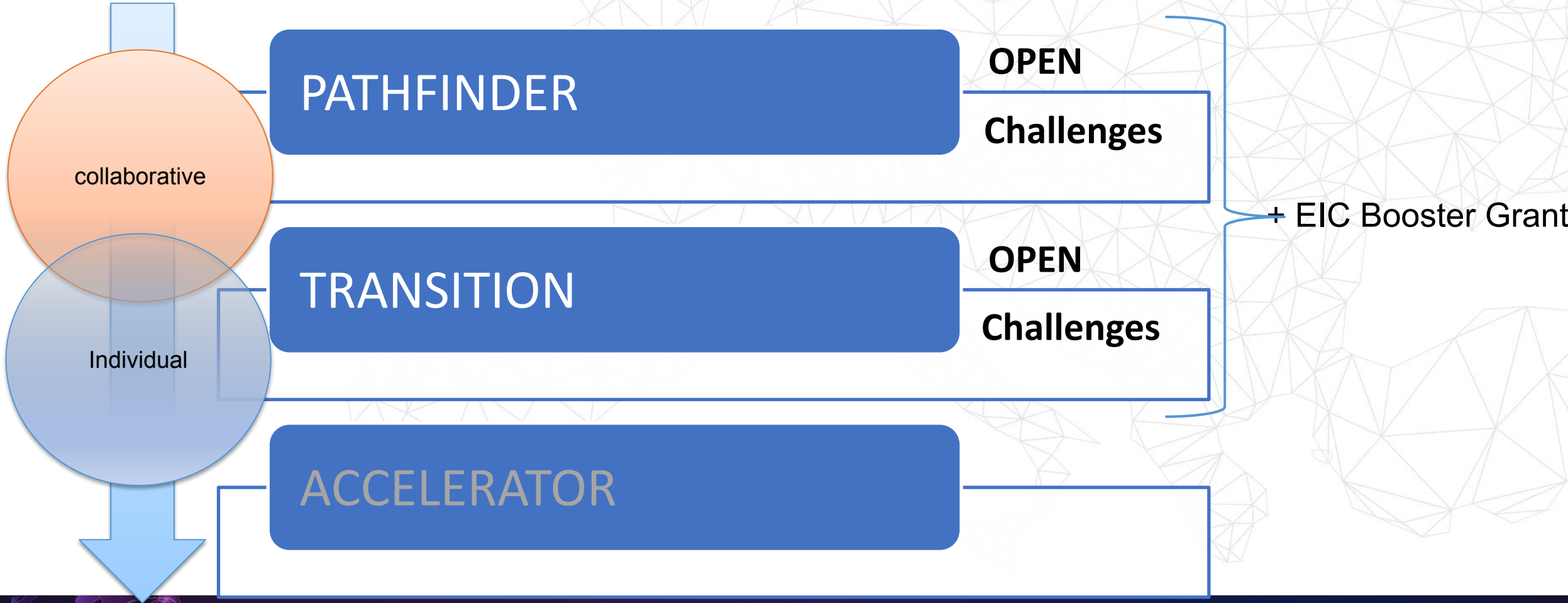
- Differs in each country for SMEs: RO - max. 50% of the project budget (excluding subcontracting); FR – 40%
- For reseach organisations: 0
- Grant differs in each country: RO – 400.000 EUR

Project duration: 2-3 years; after the completion of the project; follows a period of 3 years with reporting every 18 months, of the economic effects obtained, through the commercialization of the resulting products, services and technologies or the exploitation of intellectual property rights.

Selection of Horizon Europe calls

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EUROPEAN INNOVATION COUNCIL



Selection of Horizon Europe calls

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EUROPEAN INNOVATION COUNCIL

VII. EIC Pathfinder OPEN 2024

2024 Allocation of EUR 136 mil

03/10/2024

100% financed

Support to research teams to research or develop an emerging breakthrough technology

For projects in **any field of science, technology or application** without predefined thematic priorities.

Up to EUR 3 mil

- funding **research** to develop the **scientific basis** to underpin breakthrough technologies
- supporting **the earliest stages** of scientific, technological or deep-tech R&D
- aiming to build on new, **cutting-edge directions in science and technology** to disrupt a field and a market or create new opportunities
- realising innovative technological solutions to identify, develop and scale up **breakthrough technologies** and **disruptive** innovations in Europe

Teams of at least 3:

- **Universities**
- **research organisations**
- **SMEs, start-ups, industrial partners**
- **natural persons**

TRL 1-4

Grants + coaching & mentoring - access to business acceleration services

Selection of Horizon Europe calls

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EUROPEAN INNOVATION COUNCIL

VIII. EIC Transition OPEN 2024

22 pg. application
Jury
Interview

17/04 – 18/09
2024

100%
financed

Mature a novel technology and develop a business case to bring it to market

Up to
EUR
2.5 mil

Only for EU-funded project results (within 30 months of the project ending) with promising commercial potential that could be the basis for ground-breaking innovations and promising new businesses.

Supports both the maturation and validation of a novel technology from the lab to the relevant application environments (by making use of prototyping, formulation, models, user testing or other validation tests) as well as explorations and development of a sustainable business case and business model towards commercialisation into high potential markets.

From TRL3 to TRL6 - develop business and market readiness.
Grants + coaching & mentoring - access to business acceleration services

*Consortia of 2-5:
*Single applicants:
**SMEs, spin-offs, start-ups
RESEARCH ORGANISATIONS, universities**

Selection of funding opportunities
DIGITAL EUROPE

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IX. Girls and Women in Digital

DIGITAL-2024-ADVANCED-SKILLS-06-WOMEN

29/02 – 29/05
2024

100%
financed

- Innovation Agencies
- Digital Agencies
- CLUSTERS
- UNIVERSITIES
- RESEARCH CENTRES
- COMPANIES

- A REPORT identifying the main obstacles for girls and women in choosing career as ICT specialists, and showcasing practical, effective and feasible actions to increase the number of women in ICT
- identify BEST PRACTICES and promising initiatives to engage girls & women in digital across MS
- Establish a NETWORK of expertise and a community of stakeholders
- Organize a FORUM to debate EU "Women in Digital Declaration" + overview of national and regional strategies and measures to implement it
- Analyse the gender gap within ICT, educationally and professionally
- Provide a set of RECOMMENDATIONS for actions and activities to effectively combat the EU's gender imbalance in ICT

1

EUR 2 mil

Highest % of women in digital in EU

Bulgaria (28.9 %)

Romania (25.2 %)

Facilitating PROJECT PARTNERSHIPS

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Business Support on Your Doorstep

https://een.ec.europa.eu/

North-West Regional Development Agency

bisnet@nord-vest.ro

TRANSILVANIA IT CLUSTER

https://een-transilvania.ro/

SPARK Tartu Scienc

https://teaduspark.ee/en/projektid/enterprise-europe-network-2/