









EU Financing Opportunities for Innovation and Start-up projects and ideas

Horizon Europe - Pillar III: Innovative Europe

Webinar organized under the framework of <u>HEI4S3-RM</u> project

12th and 13th of Dicember 2022



Agenda



- Introduction University of Oviedo
- Why Pillar III of Horizon Europe Framework Program (2021-2027) Innovative Europe?
- Pilot Phase of the EIC
- The European Innovation Council (EIC) Programm
- EIC Pipeline "Instruments" Pathfinder, Transition & Accelerator
- European Innovation Ecosystem -EIE
- The example of the EIT HEI call
- European Innovation and Technology Institute EIT
- Questions and answers
- Questionary (30`min)















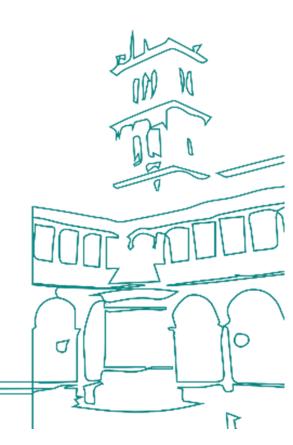




MAIN FIGURES

20.832 students
2.134 lecturers & researchers
1.064 administrative staff members
58 Undergraduate Degree programmes
62 Master's Degree programmes
5 Erasmus Mundus Master's programmes
27 PhD programmes

16 Faculties & Schools, 38 Departments €211 million annual budget





EU Proyects submitted to EU Funding Programs ■ Ciencia Excelente ■ Liderazgo Industrial ■ Retos Sociales ■ Otros 31% 41% Dates related to submitted propsals in 2020

Success rate is **11%** approximately, what is the average in Spain

Main EU Funding Programs for Innovation & Research





























Innovative Europe



Horizon Europe - Pillar 3:

- EIC: Supports start-ups, SMEs and research teams Developing high-risk and high-impact breaktrhrough innovation
- ➤ **EIE: Reinforces network** connectivity within and between innovation ecosystems to accelerate sustainable business growth with high societal value
- > EIT: Increases Europe's ability to innovate by nurturing entrepreneurial talent and supporting new ideas.

https://eic.ec.europa.eu/index_en

https://www.horizonteeuropa.es/pilar-3



Funding gap for scaling up highly innovative startups and SMEs

US venture capital investments are 4-5 times higher than EU



Source: [Invest Europe, Pitchbook]

What is at stake: will Europe be home to future « unicorns »?

Number and market value of "unicorn" companies (valued at over €1 billion) by regions



Source: CB Insights (Jan 2021)







What's holding back European innovation?

Innovation **performance**

- Strong research performance not translated into innovation
- Lack of breakthrough/ disruptive innovations that create new markets

Innovation **funding**

Financing gaps (2 "valleys of death") in

- **Transition** from lab to enterprise
- Scaling up for high-risk innovative start-ups

Innovation ecosystem

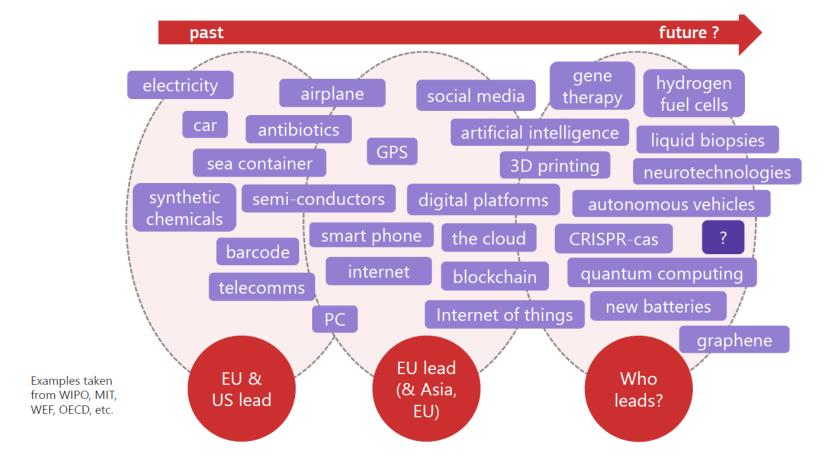
- Many national & local ecosystems, but fragmented at European level
- Need to include all regions and all talent (especially female)





What is at stake: who will lead on the next wave of strategically important technologies?

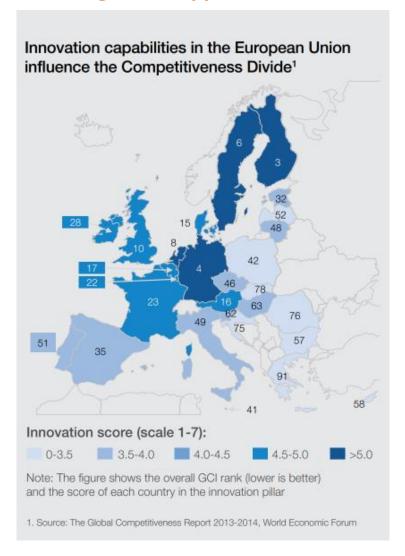








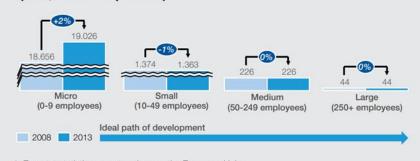
Challenges and Approaches to Fostering Innovation-driven Entrepreneurship



8 out of 10 jobs generated in the European Union since 2008 were created in small and medium-sized companies



While the number of micro companies in the European Union has increased by 370,000 (2%) between 2008 and 2013, the number of small and medium or large companies has not grown¹ (in 1,000 companies)

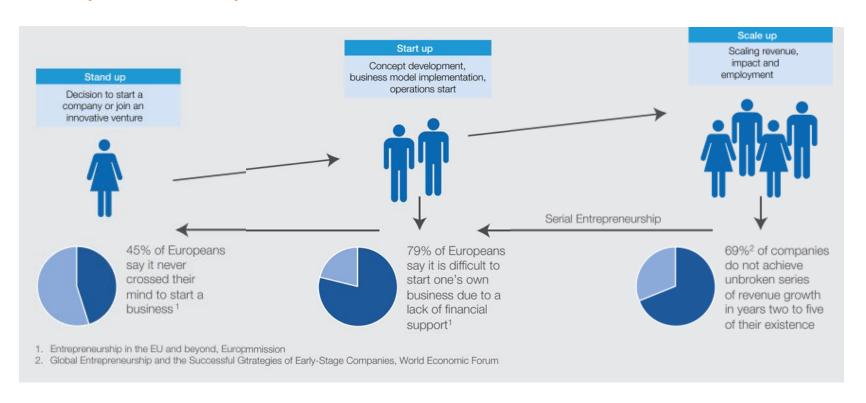


1. Eurostat statistics on enterprises on the European Union





A Life Cycle Approach to Fostering Innovation-Driven Entrepreneurship: Stand up, Start up, then Scale up







Background Innovative Europe

EIC pilot phase (2018-20) under Horizon 2020 programme

- Budget of €3.5 billion (2018-20), €1.55 billion in 2020
- Introduction of EIC pilot blended finance (2019), and set up of EIC Fund (2020)
- Very high demand: ~ 14000 applications from SMEs/ startups in 2020 with request for over €40 billion support;
- Special support for:
- COVID relevant innovations: 36 Startups/SMEs awarded funding of over €160m in May;
- 'Green Deal' innovations: 64 startups/ SMEs awarded funding of over €300m in July;
- for women innovators: at least 25% of start-ups/ SMEs invited to interview to have female CEO
- First EIC programme managers recruited







Context of Innovative Europe

Technology Readiness Levels (TRL)

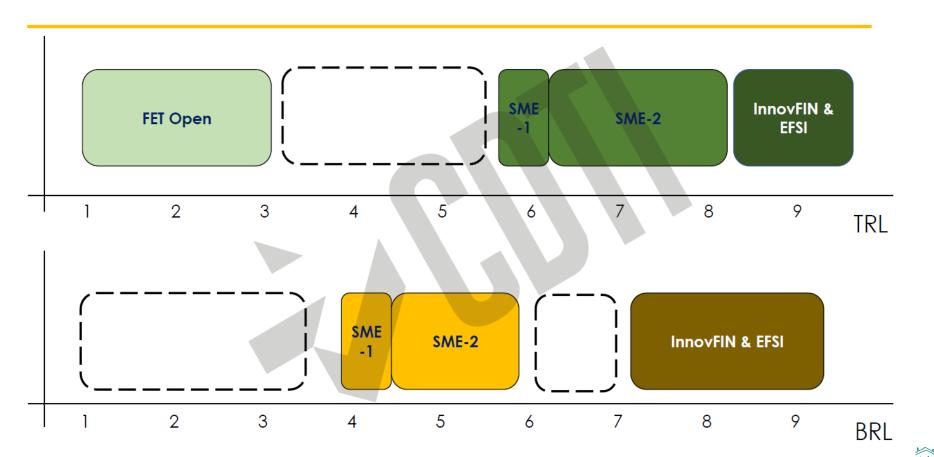


Business Readiness Levels (BRL)





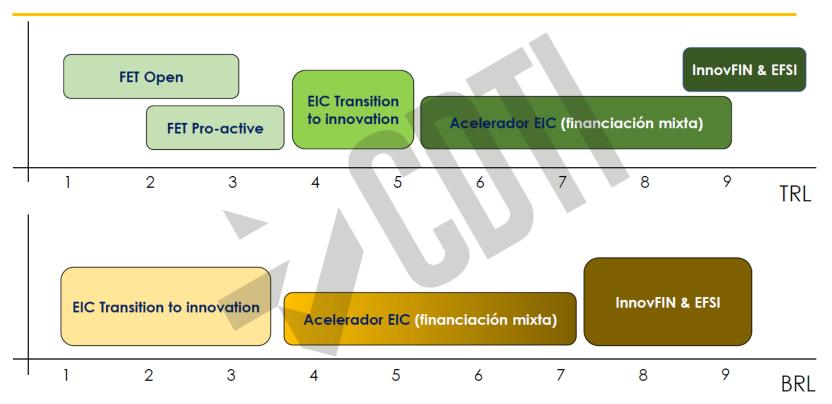
Pilot Phase of EIC (2018)





Final of the Pilot Phase of EIC (2020)

Final del piloto del EIC (2020)







Europe's most ambitious innovation initiative

- €10 billion programme to identify, develop and scale up breakthrough technologies and disruptive innovations in Europe
- Unique in the world to combine research on emerging technologies with Accelerator for startups, SMEs and scaleups
- EIC Fund largest VC deep-tech investor in Europe (over €3 billion)
- Innovator-centric steered by Board of leading innovators
- Pro-active approach with flexible funding
- Enhances the European innovation ecosystem

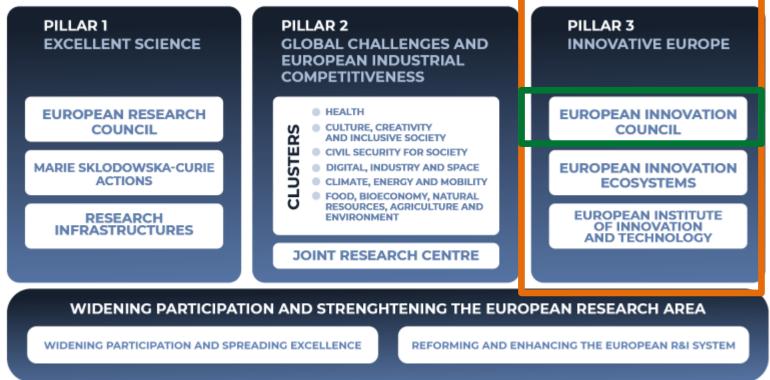








Innovative Europe



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https://eic.ec.europa.eu/index_en

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Horizon Europe – Pillar III: Innovative Europe



Bringing in the next wave of innovation through a connected and inclusive ecosystem

Horizon Europe's Pillar III features three distinctive and complementary instruments:

the European Innovation Council (EIC)

supports start-ups, SMEs and research teams developing high-risk, high-impact breakthrough innovation, with a particular focus on scaling up game-changing solutions that contribute to the objectives of the European Green Deal and the Recovery Plan for Europe.

the European Institute of Innovation and Technology (EIT)

strengthens Europe's innovation ability by powering solutions to pressing global challenges and by nurturing entrepreneurial talent.

the European Innovation Ecosystems

focus on building an interconnected, inclusive innovation ecosystem that encompasses European, national, regional and local initiatives as well as under-represented actors and territories, while also reinforcing the ecosystems' innovation capacity.









EUROPEAN INNOVATION COUNCIL (EIC)

The EIC will support innovations with breakthrough and disruptive nature and scale up potential that are too risky for private investors.

European Innovation Council Helping innovators create markets of the future, leverage private finance, scale up their companies,

Innovation centric, risk taking & agile, pro-active management and follow up

Two complementary instruments bridging the gap from idea to investable project

Pathfinder: grants (from early technology to pre- commercial) Accelerator:

grants & blended finance (from pre-commercial to market & scale-up)

The **European Innovation Council (EIC)** provides **financial support** in the form of grants and equity investments alongside business acceleration services. Its goals are to:

- identify and support high-risk innovations with a potential to create new markets or contribute to tackling societal challenges, where the risk, be it financial, technological/scientific or regulatory, cannot be borne by the market alone
- support innovative researchers and entrepreneurs in the rapid development of technologies and the scale-up of companies (start-ups, spinouts, SMEs) to bring their ideas to the market.



EIC Pipeline "Instruments"



EIC Pathfinder

for radically new technologies emerging from research excellence

The total budget of the EIC under Horizon Europe's Pillar III is:

€10.105 billion (2021-2027)





EIC Transition activities

for bringing research results to innovation potential



EIC Accelerator

for development and scaling up of high risk innovations by start-ups and SMEs, including with blended finance support (grants combined with investments through the EIC Fund)



EIC Business Acceleration Services

for tailor-made coaching, mentoring, and matching for all EIC supported companies and projects

European Innovation Council Pathfinder Open





European Innovation Council Accelerator

Successful Companies | Cut-off 15 June 2022



EIC Pathfinder (europa.eu) EIC Transition (europa.eu) EIC Accelerator (europa.eu)



Call EIC Open 2023

Frequent cut off dates for full applications (March, June, October)

			EIC Open					
Call	Who can apply	What for	Deadlines	Indicative Budget (EUF million)	EIC Challenge	C Challenges Deadlines/ Cut- offs	Indicative Budget million)	(EUR
EIC Pathfinder	Consortia of at least three different independent legal entities ⁷ established in at least three different eligible countries. Additionally, single applicants or small consortia (two partners) for EIC Pathfinder Challenges only.	Grants of up to EUR 3 million (open) or EUR 4 million (challenges), or more if duly justified, to achieve the proof of principle and validate the scientific basis of breakthrough technology (Technology Readiness Levels 1-4)	7 March 2023	179.50	- Clean and efficient cooling - Construction digitalisation - Precision nutrition - Responsible electronics - In-space solar energy	18 October 2023	163.50	
EIC Transition	Single applicants (SMEs, spin-offs, start-ups, research organisations, universities) or small consortia (two partners) or consortia of three to five different independent legal entities established in at least three different eligible countries. Proposals must build on eligible EUfunded project results (see call text)	Grants of up to EUR 2.5 million to validate and demonstrate technology in application-relevant environment (TRL 4 to 5/6) and develop market readiness	- 12 April 2023 - 27 September 2023	67.86	- Micro-Nano-Bio devices - Environmental intelligence - Chip-scale optical frequency combs	- 12 April 2023 - 27 September 2023	50.50	
EIC Accelerator	Single start-ups and SMEs (including spin-outs), individuals (intending to launch a start-up/SME) and in exceptional cases small mid-caps (fewer than 499 employees)	Grant component below EUR 2.5 million for innovation activities (TRL 5/6 to 8); EUR 0.5 up to 15 million ⁸ investment component for scaling up and other activities. Grant only, grant first and investment only component under certain conditions, namely for non-bankable SMEs, including start-ups, which have already received a grant-only support.	Short applications: continuous Full applications : - 11 January 2023 - 22 March 2023 - 7 June 2023 - 4 October 2023	611.75	Biomarkers for cancer Decontamination for pandemic management Energy storage New European Bauhaus Quantum or Semiconductor components Resilient agriculture Space technologies and services	Short applications: continuous Full applications: - 22 March 2023 - 7 June 2023 - 4 October 2023	523.49	









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European Innovation Ecosystems Initiative - EIE

The European Innovation Ecosystems initiative focuses on:



launching an **EIC Forum** encompassing public authorities from Member States and Associated Countries, aiming to promote coordination and dialogue on the development of the EU's innovation ecosystem.



promoting and co-funding joint innovation programmes managed by national authorities targeting collaborative research, technology and knowledge transfer, internationalisation and digitalisation strategies, open innovation and market deployment of technologies by innovative SMEs.



elevating the scalability potential of business by improving the flows of knowledge, talent and capital, within and between innovation ecosystems while ensuring inclusiveness and gender equality.



supporting joint programmes for **mentoring**, **coaching**, **technical assistance and other services for innovators**, in cooperation with local, European and international partners.



Fostering **innovation procurement initiatives** with the aim of increasing the use of public procurement of innovation and spur the development of new policy, with the end goal of providing market opportunities to European innovators.

The European Innovation Ecosystems **complement** the actions carried out by the EIC and the EIT, as well as activities managed under other pillars of Horizon Europe and initiatives developed by Member States and Associated Countries, but also by private undertakings.

The total budget for activities under the European Innovation Ecosystems is of

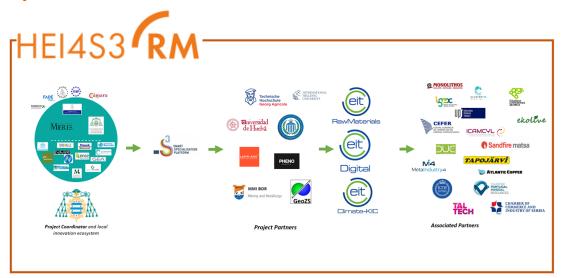
€527 million (2021-2027)

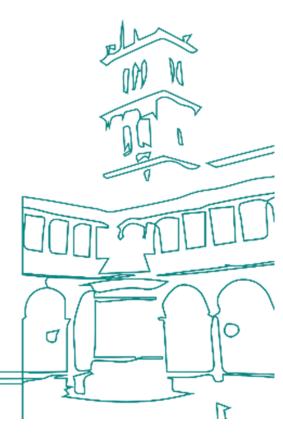






Building Ecosystem Integration Labs at HEI to foster Smart Specialization and Innovation on Sustainable Raw Materials







University of Oviedo

<u>Added Value:</u> The University of Oviedo (UNIOVI) actively participates in the regional RTD ecosystem through several tools and actions, as its **3 regional Innovation Hubs** (Circular Economy, Digital Innovation, Mobility) in line with the S3 strategy.

Almost 65 R&I research teams from UNIOVI are linked to the research and innovation priorities of raw materials and mining industry.

UNIOVI has also active participation in **international initiatives**, like the European Coal Regions in Transition Platform, the European Energy Research Alliance (EERA), the European Materials Modelling Council EMMC, the European AENEAS Industrial Platform (Components & Systems to Strengthen European Competitiveness platform) and the European Platform S3P Mining Industry, besides being involved also in other networks at the national level, as the Iberian Sustainable Mining Cluster, the Technology Platform BATTERYPLAT or the Spanish Society for Materials SOCIEMAT.

In the context of the Transition and Recovery Fund process, UNIOVI through the EIT RM application, will be able to develop and foster its "R&D ASturian institute of RAw Materials", which is part of the university strategy, and which will be a cornerstone providing support to efforts and initiatives undertaken under the umbrella of the EIT-RM. For that aim, also many university-driven Chairs ("Cátedras") have been promoted and are linked to the EIT RM topics (e.g., Pasek, HUNOSA, COGERSA, Smart Cities, ArcelorMittal, etc.)

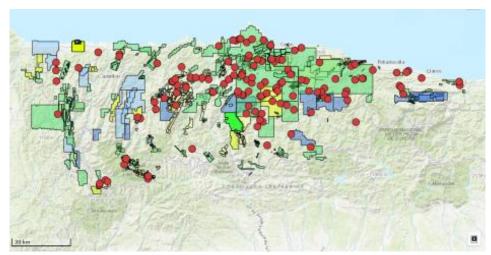
Moreover, other agreements with agents of the **regional entrepreneurship ecosystem** do exist to support specifically entrepreneurial actions at UNIOVI regarding the raw material value chains, such as with the European Business and Innovation Centre of Asturias (CEEI).

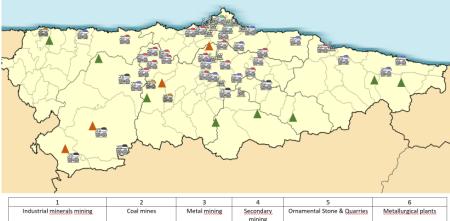






The case of **Asturias**





ndustrial minerals mining	Coal mines	Metal mining	Secondary	Ornamental Stone & Quarries	Metallurgical plants	
			mining			ı
		44	4		<u>k</u>	

Under contruction	▲ Future investm
Onder contraction	_ ruture investin

1	2	3	4	5	6	7
Industrial <u>minerals mining</u>	Coal mines	Metal mining	Secondary mining	Ornamental Stone & Quarries	Metallurgical plants	Technology& Service Providers, Equipment Manufacturers
MINERSA INTOCAST Ibérica RHI PASEK ARCIRESA Caolines de Merillés Caolines de Ia Espina Caolines del Narcea Explotaciones y Metales del Norte Sílices La Cuesta CEMESA La Belonga Asturcal Arcillas ByB SECIL España Molinera Astur Magnesitas Navarras Explotaciones Cerámicas Españolas S.A	Hungsa – San Nicolás Coto Minero del Cantábrico UMINSA CARBONAR Carbones de Linares	Oroyalle Black Dragon Asturmet Recursos, SLU Cobalt Recursos S.L. Western Metalica, SL	Grupo Riestra EDERSA Calumite Ibérica	Arcelor Mittal – Naranco La Belonga Calizas La Doriga Caleros de Brañes Canteras Cárcaba Candesa La Rebollada Calizas ornamentales Asturias Calizas Alger, Grupo MOTA Explotaciones Cerámicas Españolas S.A.	Arcelor Mittal AZSA (Glencore) Alu Ibérica (ALCOA) Saint Gobain Cementos Tudela Veguín NalonChem Industrias DOY Aleastur ThyssenKrupp HUNOSA- Batán ARCIRESA Arcichamotas	Duro Felguera TSK ALMO Triman Zincobre IDESA Maxam Adaro Tecnología Grupo MOTA





Background of HEI4S3-RM

Working group 1: Innovation Hubs (lead region: Asturias plus North Karelia, Kainuu & other regions interested) **Focus on common priorities, i.e.:**

- Upgrading SME competitiveness in M&M to industrial services
- **Sustainable** mining operations circular raw materials (transforming waste in resources);
- Digital technologies in the mining value chain (data management, health & safety/security, productivity enhancement via application of AI, IoT, etc.)
- Raw materials resilience of key EU social and industrial value chains
- Addressing the educational needs of mining companies (potentially a subgroup of its own) EIT HEI Initiative SMART SPECIALISATION PLATFORM Policy framework and guidance to support strategic development of HEIs ICAMOVL C Higher education for ERMA sternational Project smart specialisation To understand and support IT/EU projects HEIs to align their functions Innovation Ecosystem: ement & attraction Innovation in HEIs ICAMCYL C of human ternational Network of capital development with infrastructures / Digital smart specialisation Innovation Hub in M&M **Business and Investment hei**nnovate solutions/ RTDs network / priorities Platform. Is your Higher Education University alliance / Institution promoting the Education SPECIALISATION development of an HEInnovate entrepreneurial culture? University Being an entrepreneurial higher education institution depends upon individuals, and innovative ways of doing Business University Business Interregional Cooperation Cooperation initiatives Governmental Office. Entrepreneurial Potential and Innovation Hub Committee of regions. SMEs competitiveness & Innovation Competences course of Responsible Partnership University Business Policy development office assessment tool promotion. Capacitation / Initiative Forum and Thematic **M&M** Business Training /Modernization International alliance University Business Solutions - 53P 'CLUSTERS DRIVEN' Knowledge Alliances, Alliances for Innovation Enhancing Labour Market Relevance and Worldwide Projection Outcomes of Higher Education COMMER ONU OECD Help governments and higher education institutions (HEIs)

enhance the employment outcomes of graduates by better aligning higher education provision and <u>labour</u> markets.



European Innovation Ecosystems Initiative (EIE)

EIC: a lasting impact in just a few years



Over 5,700 SMEs/startups supported



90% of innovations addressing Sustainable Development Goals, in particular in: Green Deal, Digital, and Health



36 innovative solutions to COVID-19 were supported within 3 months of the outbreak



Over €5.3 billion follow up investments and 43 companies valued over €100 million

EIT: Europe's largest innovation community



60 +**Innovation Hubs** across Europe



2000 +**Partners** across Europe



3100+Graduates completing EIT programmes



1 170+ **New products** and services



3200 +Ventures supported



3.3B€ Investment raised by EIT ventures



13000 +Jobs created

More information:

European Innovation Council European Institute of Innovation and Technology

#EUEIC #EITCOMMUNITY #HorizonEU









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European Institute of Innovation and Technology (EIT) - Create, Educate and Innovate

What the EIT offers



Training for a new generation of entrepreneurs



Development of innovative products and services



Business creation support for start-ups and scale-ups

The EIT boosts innovation by increasing the collaboration between business, education and research organisation, public authorities and civil society. To achieve this, the Institute supports the development of dynamic pan-European partnerships called EIT Knowledge and Innovation Communities (KICs). Each community delivers solutions to a pressing global challenge. To date, the EIT has established eight KICs tackling the following areas:

climate change	digital transformation	energy	food	
health	raw materials	urban mobility	advanced manufacturing	





European Institute of Innovation and Technology (EIT)

Raising the bar for innovation between 2021 to 2027, the EIT will:

- Increase the impact of its activities Create two new KICs, one on the Cultural and Creative Sectors and Industries and one on Water, Marine and Maritime Sectors and Ecosystems.
- > Put more emphasis on the regional dimension of its activities by providing targeted support to countries who lag behind in innovation performance.
- ➤ Launch a new pilot initiative to increase the **entrepreneurial and innovation capacity of higher education institutions**.

The EIT will build on its success with a budget of

€2.965 billion (2021-2027)











EIT's Knowledge and Innovation Communities



The EIT's Knowledge and Innovation Communities are partnerships that bring together businesses, research centres and universities. They allow:

- innovative products and services to be developed in every area imaginable, including climate change, healthy living and active ageing
- > **new companies** to be started
- a new generation of entrepreneurs to be trained

European Institute of Innovation & Technology (EIT) (europa.eu)





Example: EIT Raw Materials

Call for Projects 2022 | EIT RawMaterials



Developing raw materials into a major strength for Europe

The Call for Projects 2022 is now open!

EIT RawMaterials connects stakeholders and actors from different parts of the raw materials value chain creating a unique collaborative environment for breakthrough innovations and radically new ways to address raw materials challenges. EIT RawMaterials comprises mental 120 core and associate partners from leading businesses, universities and research institutes, and an additional 190 project partners contributing to and be rentting by being involved in specific tasks a Calls for Projects.

We encourage our partners to submit new project proposals that will generate a significant impact on European industrial competitiveness, innovation capacity and human capital, as well as empower students and entrepreneurs driving towards the circular economy and the contribution towards the EU Green Deal goals.

Key deadlines

Monday, 1 March 2021: Call for Projects 2022 is open

Mid of March 2021: The proposal submission platform "SeedBook" goes live

Monday, 3 May 2021 at 13:00 CET: Proposal registration deadline

Monday, 3 May 2021 at 13:00 CET: Draft proposal submission deadline (on SeedBook)

Tuesday, 4 May to Thursday, 20 May 2021: Evaluation of draft proposals

Friday, 21 May 2021: Outcomes of the evaluation of the draft proposals is communicated to the consortia

Wednesday, 1 September 2021 at 13:00 CET: Final proposal submission deadline

Call for Projects 2022 (KAVA 8) documents:

- Regional Innovation Scheme (RIS) Capacity Building Projects: Instructions and process description
- Education Projects: Instructions and process description
- Upscaling Projects: Instructions and process description
- Lighthouse Appendix

Additional documents:

- Annex 1: EIT RawMaterials Strategic Agenda 2021-2027
- Regional Innovation Scheme (RIS) Project Proposal
- Education Project Proposal
- (I) Upscaling Project Proposal
- Go-to-market suct ou for meaning projects
- Project Management Guidance
- EIT RawMaterials Communication and Dissemination Guidance

Thematic Scope



EXPLORATION



MINING AND PROCESSING



FUTURE EXPLORATION, MINING, AND PROCESSING TECHNOLOGIES



INNOVATION IN THE SUBSTITUTION OF CRITICAL, TOXIC, AND LOW-PERFORMANCE MATERIALS



ADDITIVE MANUFACTURING OF MATERIALS



RESOURCE EFFICIENT DESIGN OF MATERIALS



INDUSTRIAL SYMBIOSIS



DESIGN FOR RECYCLING AND LIFE-TIME EXTENSION



END-OF-LIFE PRODUCT RECYCLING



CHAIN OF CUSTODY





Example: EIT Digital

Calls & Tenders // EIT Digital



Develop your digital skills and competences to better exploit the potential of digital transformation!











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Thanks for your attention!









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