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#### **EXECUTIVE SUMMARY**

Since the introduction of the **Regional Innovation Scheme (RIS)** in 2014, the **European Institute of Innovation and Technology (EIT)** has been at the forefront of the European Union's efforts to support and accelerate innovation excellence across Europe, as well as aid the capacity building of modest and emerging innovation countries as per the European Innovation Scoreboard (EIS). The EIT RIS, which is steered by the EIT and implemented by the EIT Innovation Communities, was significantly enhanced as part of the EIT Strategic Innovation Agenda (SIA) 2021–2027. With 2021 having been a transitional year, 2022 marked the full roll-out of the enhanced EIT RIS.

The **2022 EIT RIS Activity Report** provides a snapshot of the main programmes, activities, services, and collaborations with local players that were implemented by the EIT Knowledge and Innovation Communities (KICs) in 2022 as part of the EIT RIS. Those include business support activities to increase the number and business maturity of start-ups coming from these regions, as well as training and innovation activities fostering the next generation of European innovators. This has resulted in almost 88000 participants trained in EIT courses, more than 350 new innovations launched and more than 2500 ventures created and supported. Moreover, the report highlights testimonials and success stories from start-ups and innovators that have benefitted from their collaboration with the EIT KICs and created an impact with their innovative solutions tackling major societal and environmental challenges.

In addition to the 2022 highlights, this report also gives an overview of the performance of the RIS-eligible geographic area in EIT Community activities during the first two years of the current programming period. The EIT RIS has greatly helped the EIT Community achieve strong results in the RIS-eligible geographic area, including when measured through Horizon Europe as a performance benchmark.

Finally, the report outlines how the EIT Community quickly stepped in to support Ukraine, an EIT RIS eligible country, in the face of the Russian invasion.



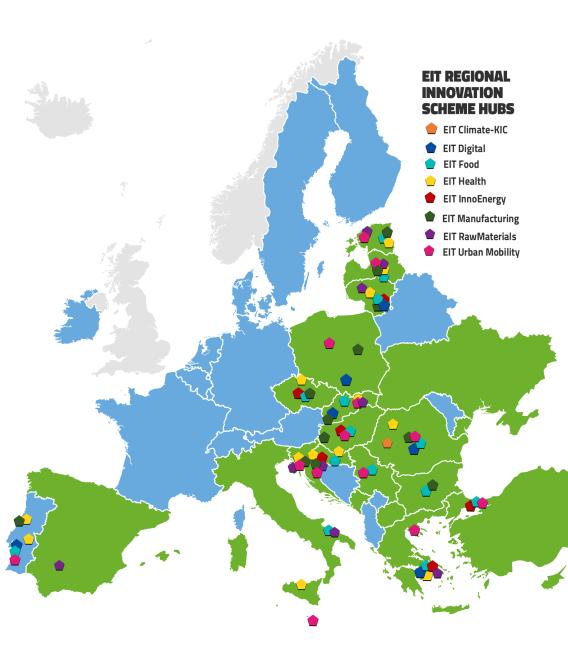
#### **INTRODUCTION**

The EIT was established in 2008 to contribute to the sustainable economic growth and competitiveness of Europe by reinforcing the innovation capacity of the European Union (EU) and its Member States. The EIT has pioneered the integration of higher education, research, and business in Europe with a strong emphasis on entrepreneurial talent, business creation, and innovation skills. Against the backdrop of persisting regional disparities in innovation performance in Europe, the EIT launched the Regional Innovation Scheme (RIS) in 2014 to provide tailored capacity building support (financial, technical, and educational), and widen its regional outreach for moderate and emerging innovator-countries as identified by the European Innovation Scoreboard (these countries form the EIT RIS geographical area).

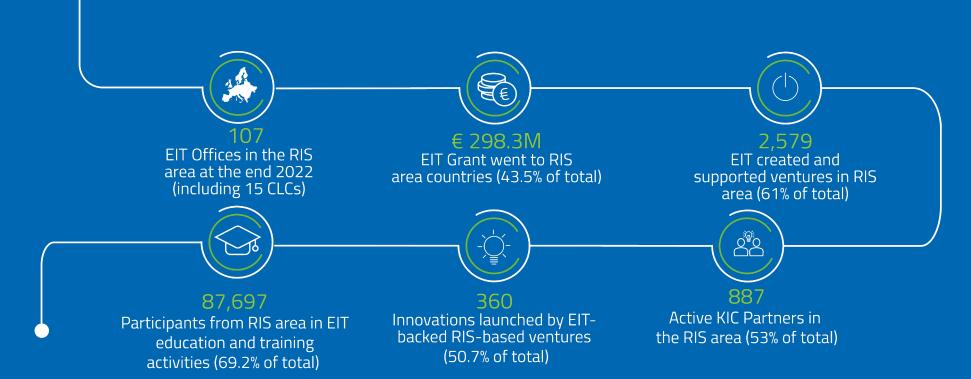
The **EIT RIS**, which is steered by the EIT and implemented by its Knowledge and Innovation Communities (KICs), offers innovators based in the EIT RIS geographical area an additional level of support.

Building on the strong results achieved during the 2014-2020 programming period, the EIT Community's 2021 results showed that most of its impact was being delivered in the EIT RIS geographical area. This strong trend of growth continued in 2022 and even improved. Against a horizontal EIT target of delivering a minimum of 15% of all its results in the EIT RIS geographical area, the indicative, average participation rate of EIT RIS-eligible countries in EIT Community activities in 2021-2022 stood at around 56%.

The consolidated 2021-2022, EIT Community results in the EIT RIS geographical area are visualised in the graphic below.



#### EIT Community in the EIT RIS eligible area (2021 - 2022)



11.5% of the total EIT Grant dedicated to the EIT KICs was allocated to RIS activities<sup>1</sup> in 2021-2022 with the level of funding in just the first two years of the current programming period already coming close to matching the funding allocated to EIT RIS activities during 2014-2020.

Since the early stages of its implementation, the EIT RIS has been spearheaded through the establishment of on-the-ground EIT RIS Hubs. The geographical distribution of the EIT RIS Hubs at the end of 2022 is shown on the map below.

<sup>1</sup>The EIT Legislative Framework stipulates that EIT RIS activities should be allocated between a minimum of 10% and a maximum of 15% of the EIT Grant dedicated to the EIT KICs. This earmarking of funding towards EIT RIS activities does not exclude partners from RIS-eligible countries from participating in any other EIT activities beyond this budget allocation range.

In 2022, the **EIT RIS**, given its highly dynamic and tailored support nature, was also swiftly mobilised to be amongst the EIT Community's central initiatives in support of the Ukrainian innovation ecosystem as it faced Russia's unprecedented military aggression.

EIT RIS activities were quickly modified or put in place to allow Ukrainian innovators to continue and even expand their innovation goals despite the war. One example is the Pre-accelerator in Ukraine – powered by EIT Jumpstarter led by EIT Manufacturing. The Pre-accelerator helped high-potential early-stage Ukrainian innovators turn their early-stage ideas and discoveries into successful businesses through online training, expert mentoring, smart financing of up to EUR 7 500, and access to the EIT Community's Pan-European network.



#### **EIT CLIMATE-KIC HIGHLIGHTS**

#### How does EIT Climate-KIC define an innovation project?

INNOVATION **PROJECTS** 



EIT Climate-KIC ran 13 Innovation activities with 685 total participants.



Innovation refers to creating and implementing new ideas, concepts, products, services, or processes that bring about significant improvements, advancements, or solutions to existing problems. It involves the transformation of creative thinking and original concepts into practical and valuable outcomes that have a positive impact on all levels of society.

**Post Coal Future Lab and Workshop:** To help the Central & Eastern European (CEE) regions transition from coal-dependency to a zero-carbon economy, the call for a CEE Community Lab was opened. The consortium of WISE Europe (Poland), Impact Hub (Czechia), Aton Business Creator (Romania), and the Agirre Lehendakaria Center (Basque Country, Spain) chose to go with "CEE Community Lab: Post Coal Future Lab". The Lab focused on coal-dependent regions in Romania (Jiu Valley), Poland (Greater Poland, Silesia, and Belchatow), and Czechia (Moravia-Silesia). Its mission was to create a space for cooperation between stakeholders in coal regions. Between September and December 2022, 25 participants in each country designed and tested innovative products and services.

A Post Coal Future Lab Workshop called "Sharing the Success of a Post-Coal Future" brought together 67 participants from all RIS countries. These participants included a diverse range of stakeholders engaged in creating a successful future for businesses, communities, and people in coal regions across Southern, Central and Eastern Europe. The event provided an opportunity to discuss the work and objectives of the initiative and to share potential risks and challenges alongside best practices and experiences associated to the economic transition within these regions.

#### RUSINESS CREATION



EIT Climate-KIC ran four Business Creation activities with a total of 384 participants.

**ClimAccelerator:** ClimAccelerator is a global programme that turns cleantech start-ups into successful businesses. It fosters businesses that break new ground in reducing carbon emissions and making the world more climate resilient. To date, it has incubated over 2 100 companies and those companies have gone on to raise more than EUR 2 billion in external investment. In 2022, it ran alongside four different consortiums two times each:

**MED:** Malta, Cyprus, & Portugal Black Sea: Romania & Bulgaria

Bevond: Czechia, Slovenia, Serbia, Croatia, & Greece

Baltics & Slovakia: Latvia, Lithuania, Estonia, & Slovakia ClimAccelerator



## ENTREPRENEURIAL EDUCATION



"Climate Leadership Journey Kick-off event": The event was the official launch for the Climate Leadership Journey programme with a presentation of its content and structure. Attendees included 160 learners, 11 partners and eight coaches in nine locations, running four residential summer schools (three of them in RIS countries).

Participants were able to network with their peers and discover the location of their summer school.

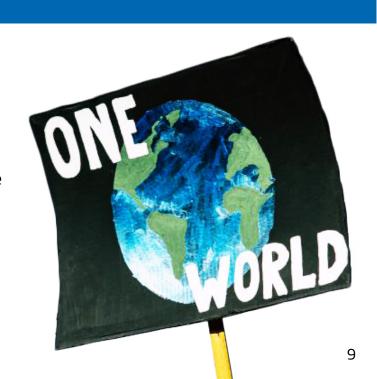


#### **EIT CLIMATE-KIC SUPPORTED START-UPS**

More than 82 start-ups and scale-ups have been selected, accelerated, and supported for at least two months by **EIT Climate-KIC** programmes. In addition to mentoring and training, the same number also received a climate impact assessment of their climate-positive solutions.

The Climate Change Company: This Romanian start-up developed "Littar"®, a road construction material made from recycled plastic and glass waste. It provides durable infrastructure while preventing massive amounts of CO2 from entering the atmosphere. Using "Littar"® instead of conventional foundation materials results in longer-lasting road surfaces without potholes because of its improved load-bearing properties over conventional asphaltic materials. The material also enables shorter road construction times, lower costs, and fewer emissions.

The **Climate Change Company** was supported by EIT Climate-KIC's BlackSea ClimAccelerator 2022 via a grant of EUR 25 000.



#### **EIT CLIMATE-KIC ALUMNI**

**Mónica Villoslada Valbuena, Celia María Camacho Montaño**, & **Marina Pérez Fernández**: This group of young climate enthusiasts were inspired by the smell of "azahar" that pervades all corners of their city of Sevilla, Spain when spring comes and the orange trees blossom. There are about 40 000 orange trees in Sevilla, making it the city with the most orange trees in the world. Every season, these trees produce about 5.7 million kilos of oranges. For Monica, Celia, and Marina, this means a huge amount of orange peels are wasted. Their idea is to transform orange peels into a locally made and ecological alternative to plastic that would not only be generated by renewable resources but also biodegradable.

The three of them met during a Climathon organised in Sevilla in 2021. Climathon is a place-based programme orchestrated by EIT Climate-KIC that encourages citizens to brainstorm local solutions to transform their city towards a net-zero carbon economy as well as mitigate and adapt to climate change.





#### **EIT DIGITAL HIGHLIGHTS**



#### INNOVATION **PROJECTS**



EIT Digital ran seven innovation activities in the second half of 2022. reaching 450 participants in all RIS-eligible countries.

#### How does EIT Digital define an innovation project?

When it comes to innovation projects, EIT Digital is looking for world-class digital deep tech activities led by teams with powerful entrepreneurial drive to support the next generation of digital companies that can impact Europe and the world's challenges. A strong Innovation Activity proposal for EIT Digital will demonstrate a specific solution for a relevant business pain that can create or disrupt markets and that is aligned with EIT Digital's focus areas and should achieve the claimed market impact during the activity's timeframe. Focus areas include Digital Industry, Digital Cities, Digital Finance, Digital Wellbeing, and Digital Tech.

EIT Digital Innovation Factory: This project improves the minimum viable product developed by EIT Digital's XR4A partners, who hope to launch a teletherapy platform for teens with neuro-development disorders. The project is helping it achieve clinical assessments through experimental pilots in Italy and Greece. The platform will then be commercialised by the start-up "MEEVA", a spin-off of Fondazione Bruno Kessler. This support will help launch a funding round that can bring in the investment needed for market access and product development.

'XR4A is a perfect example of what innovation means for EIT Digital: connecting players from academia, research, and industry across Europe, developing new digital solutions addressing societal challenges and supporting their go-to-market efforts through venture creation and scaling. All this by bringing European values into technology and achieving social and economic impact at European level. We are very proud of what the XR4A team is doing for young people and their families!'

EIT Digital CEO Federico Menna





## **BUSINESS CREATION**



EIT Digital provided five Business Creation activities, with more than 124 deep tech start-ups and more than 200 entrepreneurs from all RIS-eligible countries.



The EIT Digital Venture Program: 18 February 2022 marked the launch of the 2022 edition of the EIT Digital Venture Program. The programme supports early-stage entrepreneurial teams on their journey to the market. It offers an intensive eight-week pre-accelerator, orchestrated by EIT Digital and executed by regional partners in Greece, Latvia, Poland, Portugal, and Slovenia. Selected teams are coached on how to develop their Minimum Viable Product (MVP), establish their start-up, and raise funds with investors, among other business skills. At the final "Pitch Days", teams get the chance to validate their business solution by presenting it in front of early-stage investors, potential clients, and experts from the tech community. In 2022, EIT Digital ran five regional editions of the Venture Program in RIS countries.

Over the course of the 2022 edition, ten start-ups raised close to EUR 870 000 in private funding. For their achievements, the ten start-ups were awarded a further EUR 10 000 prize from EIT Digital on top of the EUR 15 000 they had received during the pre-acceleration stage.

#### Those top teams were:

Bamble (Estonia)
Turms-Adrain Sp Zoo (Poland)
Vienas namuose (Lithuania)
SC Eyelearn (Romania)
Stride (Romania)
InsulLoc - Virtual Insulin Therapy Assistant (Romania)
Apisense (Poland)
Mass Master (Slovenia)
Terraplus (Greece)
Suhona Al (Latvia)

## ENTREPRENEURIAL EDUCATION



EIT Digital ran nine education activities with 1 100 participants.

Babeș-Bolyai University (UBB): UBB in Cluj-Napoca, Romania joined the EIT Digital community to provide cybersecurity courses as part of the EIT Digital Master School. UBB and EIT Digital considered this move a logical step forward as both have a shared interest in digital security, innovation, and entrepreneurship.

**UBB** will be participating in a programme that produces professionals with hands-on knowledge of issues in blockchain, cryptocurrencies, ethical hacking, and quantum cryptography. The cybersecurity programme will have the quality seal of the EIT Label.



## **EIT DIGITAL SUPPORTED START-UPS**

**Nereid:** This Greek start-up helps boaters find berth more easily with 3D imaging that ensures smooth sailing as they navigate into port. It also helps boaters find nearby marinas, communicate with them, and book their spaces and activities online. Data is secured through a blockchain solution while dock space is managed by an Al assistant on the platform.

Nereid is a graduate of the EIT Digital Venture Programme, which takes ideas to the investment stage in less than a year. The programme features intensive training at bootcamps and competitions that offer cash prizes. It also helped Nereid develop its business plan, which in five years helped the company grow its income to EUR 2.5 million.





'It was a very helpful programme, providing a lot of training. And it was our first big success.'

Georgios Birkas, CEO and co-founder of Nereid

#### **EIT DIGITAL ALUMNI**

Aleksandra Manolcheva, Marko Andonov-Acev, & Andriana Ilievska: This trio of North Macedonians launched their start-up Do More, which provides an online platform for charitable donations called Box2Help. The project's goal was to establish a transparent system to provide socially endangered families with door-to-door deliveries. To incentivise the act of giving, Box2Help rewards top corporate and individual donors with PR, ads, and ambassador recognition. The team's next big goal is to implement online donations of medicine and other necessities.

Aleksandra is a student with the EIT Digital Master School Fintech programme at UPM, Madrid. Her experience is that EIT Digital's community has been a constant source of inspiration and encouragement.



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#### **EIT INNOENERGY HIGHLIGHTS**



## INNOVATION PROJECTS



EIT InnoEnergy ran 10 innovation activities with a total of 2 940 participants.

#### How does EIT InnoEnergy define an innovation Project?

EIT InnoEnergy sees innovation projects as the transformation of available knowledge into new marketable products and services related to the field of sustainable energy that:

- Decrease the cost of energy
- 2. Increase intrinsic operational safety and reliability
- 3. Reduce Green House Gas (GHG) emissions

**Łukasiewicz – PORT:** Łukasiewicz – PORT is involved in the creation of technologies in two thematic areas:

- Sustainable, safe, and competitive energy supply: renewable energy sources (RES), energy systems and networks, energy storage, CO2 capture, and storage.
- Efficient, sustainable, and affordable energy use: increased energy efficiency of buildings and industry, renovation, changes in industrial processes, and intelligent solutions. The potential of Łukasiewicz PORT allowed for the expansion of available services on offer for the photonics, energy, and measurement technology industries. It also developed new products using raw materials for energy solutions such as solar cells (through research using perovskite minerals) and batteries (through using compounds of lithium, magnesium, and graphite).

As part of its cooperation with EIT InnoEnergy, it is actively involved in creating a competitive battery model for Europe by 2025. Its market value will exceed EUR 250 billion per year.







## **BUSINESS CREATION**



EIT InnoEnergy ran 14 business activities benefiting 14 ventures.



**Equity Portfolio:** EIT InnoEnergy has continued adding companies to its Equity Portfolio despite the economic headwinds of 2022. Four companies came from RIS-eligible countries:

- **Nevomo** (Poland), who is developing MagRail technology to enable quick implementation of hyperloop-inspired transportation tech within railroad systems.
- **Empyrio** (Latvia), which is developing an incinerator for organic waste without side energy sources or raw materials and with the ability to reuse its own heat waste.
- **Prime Battery Technologies** (Romania), which enables the energy transition by providing the most affordable energy storage solutions.
- **Coat-It** (Poland), which uses plating nano-additives to improve the protective and mechanical properties of metallic coatings, including anti-corrosion and increased hardness.

## ENTREPRENEURIAL EDUCATION



EIT InnoEnergy ran nine education activities with a total of 84 participants

EBA Academy Poland: EBA Academy Poland was created in 2022 to train battery tech experts for Poland's battery industry. It was brought to life following an agreement between EIT InnoEnergy and the Polish Alternative Fuels Association. The development of the energy storage sector in Poland, which ranks first in Europe and fifth in the world in terms of lithium-ion cell production, will mean an increasing demand for skilled workers in the areas of battery design, manufacturing, development, or testing.

The EBA Academy's programme upgrades the skills of employees working in energy storage and related industries. Its curriculum combines academic knowledge and practical experience.



## **EIT INNOENERGY SUPPORTED START-UPS**

**Ecobean:** This Warsaw-based start-up has developed a patented technology to process waste coffee grounds into sustainable materials such as coffee oil, anti-oxidants, lactic acid, protein-rich additives, and coffee lignin. These are direct alternatives to products used widely today by food, cosmetics, manufacturing, and pharmaceutical industries, among others. The ultimate goal is to limit the coffee industry's carbon footprint.

The company closed an investment round with EIT InnoEnergy, CofounderZone, CIECH Ventures, and angel investors from COBIN Angels. This investment is a key milestone on the company's path to building its Ecobean Technology Center and will help attract and access talent, paving the way for further global expansion.



ecobean-8

"We are the most technologically advanced company in the sector, with a proven logistic solution to fully process spent coffee grounds and transform them into materials needed by various industries"

Marcin Koziorowski Chief Executive Officer of Ecobean

#### **EIT INNOENERGY ALUMNI**

**Fabia Miorelli:** This EIT InnoEnergy Master School graduate recently made it on two separate Forbes "under 30" lists. Fabia made the "100 under 30 in Italy" list for contributing to innovation and entrepreneurship in the field of energy, as well as the distinguished "30 under 30 in Europe" in the Industry and Manufacturing category, which identifies those creating the products, methods, and materials of tomorrow. She is currently a PhD candidate at the German Aerospace Centre (DLR) in the Energy Systems Analysis department, where she brings a fresh perspective to the impact of futuristic electric vehicles and energy system mobility concepts.



Reflecting on her time in the Master's in Sustainable Energy Systems programme, Fabia would promote the benefits of an international double master's degree that also offers an interdisciplinary approach.

'I strongly believe in the benefit of professional and personal versatility. EIT InnoEnergy provides a great addition to engineering studies by offering a broad range of business management and entrepreneurship courses. This additional business knowledge and skills are useful in entrepreneurial settings and research, making me better in my scientific field. The hands-on projects are also invaluable for our development. For example, I was involved in two projects. The first one was a proposal of innovative energy storage business models for a small Catalan utility company, while the second one brought us to Indonesia for the electrification of rural villages. So, I spent my time at EIT InnoEnergy exploring different topics and settings in the energy field, which is important to understand where one's strengths lie.'

#### **EIT HEALTH HIGHLIGHTS**

#### **INNOVATION PROJECTS**



In 2022 there was a total of three innovation activities with 51 participants.

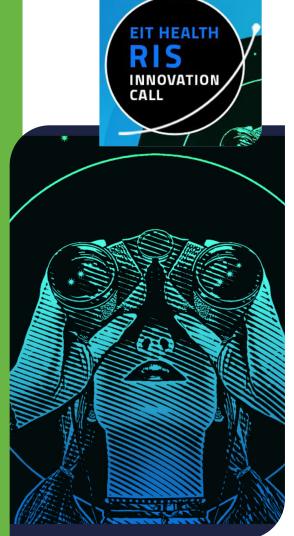
#### How does EIT Health define an innovation project?

EIT Health defines an innovation project as a solution that solves a clearly defined need that falls within one of the Flagship areas. Specifically, the proposed solution must be relevant to the healthcare system in the EU, address a real problem or unmet need, demonstrate innovation with patient-centric technologies, and align with one or more of EIT Health Flagship area.

Ultimately, what makes a health innovation project a success is an innovative idea that uses technology to deliver value to healthcare systems and patients alike; a knowledgeable and invested consortium, prepared to take on the challenge; and a solid business plan that maps out the journey from idea to market success.

RIS Innovation Call 2022: This programme provides 'proof-of-concept' funding for consortia of a start-up/SME and other local stakeholders (universities, research centres, or healthcare institutes) to push the most promising innovation projects to the next maturity level, enable them to finalise the proof of concept (PoC), and prepare them for the EIT Health Innovation Journey. The selected teams also get individual mentoring, training, and matchmaking to boost their skills in innovation and value proposition, business modelling, intellectual property (IP), certification and reimbursement, and funding opportunities.

This year, the programme had 20 participants from eight RIS-eligible countries (four Croatian, one Czech, one Estonian, three Greek, one Latvian, two Lithuanian, six Portuguese, and two Slovenian teams were selected).





## **BUSINESS CREATION**



There was a total of 12 business creation activities with 160 total participants.

InnoStars Awards: The InnoStars Awards training and acceleration programme gets early-stage companies and small- and medium-sized enterprises (SMEs) funding for business development and product validation. The start-ups also receive support in business planning, pitch development, market validation, market entry strategy development, and individual mentoring. Besides the bootcamps and the competition, 15 applicants not enrolled in the programme (ranked 21-35) are provided individual mentoring to further develop their ideas and gain support to successfully apply for funding programmes.



## ENTREPRENEURIAL EDUCATION



There was a total of nine education activities with 1 187 participants in 2022.

Lithuanian hub capacity building project: **DIGIPRO Health (Digital Prototypes for Health)** "Train the trainers": This programme facilitates the development of digital health solutions. It has two components – the Train the Trainer programme (TTT) and educational events in digital health themes. 20 participated in the programme in 2022.

The capacity building project solves the following major challenges: lack of knowledge and skills in digital health topics and interdisciplinary educational training for higher education staff and related stakeholders. The project activities boost innovation by enabling institutional changes to better integrate business, research, and education.



## **EIT HEALTH SUPPORTED START-UPS**

Nanordica Medical: Nanordica Medical had the elevator pitch of solving the problem of wound infection, focusing mainly on diabetics with chronic wounds. The company aims to reduce infection-related amputation rates among diabetics by 20%.

Wound infections are the major cause of limb amputations among diabetics. 10 million amputations occur annually causing EUR 100 billion in additional healthcare costs. Nanordica Medical's competitive edge is its unique nanotechnology, a mixture of antibacterial nanoparticles that was developed after over 10 years of research. Their first product was antibacterial wound dressing (AWD). Their nanoparticle-based AWD removes bacterial infection eight times better compared to the best commercial silver-based wound dressings.

EIT Health backed Nanordica Medical through its participation in the InnoStars Awards 2022 and the company went on to successfuly secure a seed investment round to the value of EUR 375 000.



# Nanordica Medical

#### **EIT HEALTH ALUMNI**

Luis Rita: Luis Rita's CycleAI has the mission to use AI to empower micro-mobility users and enhance their safety. He hopes to create an all-inclusive map of entire countries to showcase cyclists' perceived safety levels concerning roads and infrastructure. Developers of cycling infrastructure and town planners can refer to CycleAI's database to identify dangerous hotspots and areas that require improvements.

Luis Rita is a graduate of EIT Health's Master in Technological Innovation in Health, a programme with the EIT Label seal of quality entrepreneurial and innovation education.



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#### **EIT RAWMATERIALS HIGHLIGHTS**

#### How does EIT RawMaterials define an innovation project?

Innovation projects usually start with research activities that support the development of a new service or product (or a new technology). EIT RawMaterials gives support to validated technologies that need an additional step(s) for up-scaling, demonstration, or implementation before heading to the market.

Only the projects that are fully aligned with the EIT RawMaterials 2021–2027 Strategic Agenda are considered for funding. That means the proposal should address at least one of the topics listed in the Lighthouse Appendix and support one of the strategic objectives in close cooperation with the KIC staff that have been assigned to the proposal. The majority of these activities are executed in RIS countries and they need to provide benefits for the RIS countries, raise the innovation level of entities within RIS countries, are coordinated by a partner from RIS countries, and contribute to a reasonably significant amount of EIT Core RIS KPIs from the Strategic Agenda 2021–27. Projects that have the potential to become investment cases will be examined and supported by the European Raw Materials Alliance for access to investors.

RIS-RESTORE: RIS-RESTORE is a self-sustaining network of stakeholders from across the aluminium value chain. This includes both potential users of extracted heavy metals and users of recycled residues within the construction sector, where a waste-free metal extraction technology from the red mud was created and optimised. The project spans Slovenia, Croatia, Hungary, Bosnia and Herzegovina, Montenegro, North Macedonia, and Greece. Its results made a breakthrough in assessing the economic potential of valuable heavy mineral extraction from red mud tailings.

In December 2022, project partners organised the Final Conference of the RIS-RESTORE project in Podgorica, Montenegro. It was attended by relevant ministries, decision makers, industrial stakeholders, and media. The Montenegrin media coverage focused on the potential to lift the environmental burden of the red mud waste through the extraction of valuable materials.

This year, the programme had 20 participants from eight RIS-eligible countries (four Croatian, one Czech, one Estonian, three Greek, one Latvian, two Lithuanian, six Portuguese, and two Slovenian teams were selected).

## INNOVATION PROJECTS



In 2022 there were 25 innovation activities with 3 634 participants.

#### RIS-RESTORE





## **BUSINESS CREATION**



EIT RawMaterials ran three business creation activities with 1 100 participants

The Regional Innovation Competition 2021: This competition is a pre-accelerator programme for RIS start-ups. It provides workshops and mentoring for two months before a final event. The main goal of this activity is to provide established start-ups in the RIS region with support to connect with local EIT RawMaterials RIS incubators, connect entrepreneurs with local and pan-European ecosystems and markets, and offer dedicated coaching opportunities to execute their business plans.

13 start-ups participated in 2022 from nine RIS-eligible countries.



## ENTREPRENEURIAL EDUCATION



EIT RawMaterials ran around 50 education activities with more than 5 000 participants

The RIS Internship: This is one of the first projects selected for funding in the relatively new activities category of RIS Capacity Building and started in 2022. The programme broadens university-business cooperation. A total of 53 organisations applied and entered the pool of organisations in 2022, while 80 students applied to the call for students. 89 internship candidates and supervisors with RIS citizenship completed training for this programme, and 30 internships were implemented. Six hosting companies have offered their interns employment.



## **EIT RAWMATERIALS SUPPORTED START-UPS**

**ReCatalyst:** Slovenian start-up ReCatalyst reduces the required platinum in fuel cell cores (the catalyst) by 50% while improving its efficiency and durability thanks to ReCatalyst's proprietary nano-tech production process. Platinum makes today's fuel cells expensive even under the economies of scale. Platinum will be the biggest 'migraine' for fuel cell producers and the main bottleneck for this technology to scale massively.

EIT RawMaterials supported the company through all three EIT RawMaterials Accelerator programme stages, which Re-Catalyst completed in 2022.







#### **EIT RAWMATERIALS ALUMNI**

Ali Hassan: Ali is a mining and resources engineer who graduated from the EIT-Labelled EMerald Master programme. He was actively involved in the EIT RawMaterials Alumni network and served as the Alumni Board President from 2020 to 2022. Ali contributed to securing the program's EIT Label renewal and worked as a research engineer specialising in battery recycling processes.

Currently, he is pursuing a Marie-Curie Industrial PhD with FLSmidth, Helmholtz Institute Freiberg for Resources Technology, and TU Dresden. Last year, Ali attended the GreenEST Startup Summit in Estonia, sponsored by EIT RawMaterials Alumni, where he was inspired to establish his own Estonia-based consultancy company, FreeMountain Consultancy. FreeMountain Consultancy focuses on developing and enhancing process flowsheets for recovering critical raw materials from primary and secondary resources. It also offers assistance to technology providers in conducting lab and on-site pilot testing to build strong business cases.



#### **EIT FOOD HIGHLIGHTS**



#### INNOVATION **PROJECTS**



40 innovation projects were tested and brought to the market.

#### How does EIT Food define an Innovation project?

The RIS Innovation portfolio builds directly on prior investment by including RIS Innovation projects which support agrifood related start-ups, researchers, and innovators from the EIT RIS.

The CLiMB-Out project: The CLimB-Out project aims to detect signs of obesity early-on in children and provide timely interventions to promote a healthier diet and lifestyle. Over 50% of the EU population are overweight or obese. This is known to contribute to the development of chronic metabolic and cardiovascular disorders, which are leading causes of morbidity and mortality worldwide.

Child obesity is of particular concern as the number of overweight children has increased tenfold in the last 40 years and, of those, 60% are expected to remain overweigh into adulthood. The CLiMB-Out project is developing predictive tools which are microbiome-informed and help detect the risks of becoming obese, facilitating lifestyle and dietary changes early on. This project is also co-designing innovative educational and communication programmes that help families and health care professionals promote healthy lifestyles across different socioeconomic environments.

This personalised nutrition project will use the latest innovative biotechnologies and artificial intelligence to gauge the microbiome in a large cohort of children in southern European countries. Current partners include Danone, UniBo, CUT, and CSIC.

This year, the programme had 20 participants from eight RIS-eligible countries (four Croatian, one Czech, one Estonian, three Greek, one Latvian, two Lithuanian, six Portuguese, and two Slovenian teams were selected).



## **BUSINESS CREATION**



1 200 entrepreneurs were trained and 48 start-ups were supported. Through EIT Food activities. Regenerative Agriculture Revolution (RAR): This programme builds farmer competence in regenerative agriculture in Central-Eastern and Southern Europe through group training and individual advisory. RAR closed open calls to choose a new sub-contractor in Poland and expand the project in Bulgaria and Slovakia. It delivered six two-day regenerative agriculture training courses in Poland and Spain to a total of 116 farmers.



## ENTREPRENEURIAL EDUCATION



EIT Food ran four RIS education activities with a total of 1 100 participants.



**EIT Food RIS Fellowships Action Line:** This framework includes three different programmes dedicated to young people at various stages of education in RIS countries:

- RIS Fellowships An internship programme for Master of Science students and graduates
- RIS Talents An internship programme for PhD students and post-docs
- RIS Youth An apprenticeship programme for technicians from technical and vocational schools and youth from profiled high schools

The key element of recruitment was matchmaking; students that met selection criteria were matched to an internship from a hosting institution.

- 559 candidates applied to RIS Fellowships and RIS Talents programmes
- 125 workshop participants were qualified for the last stage of the recruitment
- 190 of the best applicants to the RIS Fellowships and RIS Talents programmes were shortlisted and matched with internship opportunities offered by host organisations
- 16 applicants submitted their applications to the RIS Youth programme

## **EIT FOOD SUPPORTED START-UPS**

**Neoalgae - Mr. Greenish:** Mr. Greenish is an innovative category of plant-based products with microalgae extracts with improved organoleptic characteristics, nutritional benefits, great texture, and seafood flavour. It benefited from EUR 40 000 in EIT funding.



'When we started working with the support of EIT Community, Neoalgae had finished the first steps in the of development of the products (specifically the development of processes to obtain biomass from microalgae and the development of extraction processes) and had started the next phase of "product development, characterisation, and validation studies". Neoalgae could complete this phase thanks to EIT Food support and address business development, including the design of packaging and corporate image. One of the most important activities we could do which was incredibly valuable thanks to EIT Food support was the co-creation process with consumers, providing us with valuable insights on customer motivations, habits, and more adequate marketing strategies. The programme has made it possible to complete the commercial development of the Mr. Greenish brand products, make the products themselves known and be able to carry out the productive deployment. Thanks to the programme, we have been able to test the products and work closely with consumers and future users to take into account their opinions in order to improve the product.'

Jesus Fidel Delgado, Co-CEO of Neoalgae



#### **EIT FOOD ALUMNI**

**Guiomar Sanchez Carrón:** Guiomar and her co-founder founded **BioProcesia** in November 2021 with the goal of using the by-products of the food industry to create valuable sources of protein. They gained access to EIT Food's Empowering Women in Agrifood (EWA) programme soon after they had their first prototype. By November, Guiomar had won the EWA Spain 2022 first award (with an EUR 10 000 prize). Bioprocesia's efforts were being recognised and it was awarded with the Foodtech sustainability award at the Food4Future expo. It was also a finalist at the Alhambra Ventures event for start-ups.



'I was selected for the EWA Spain cohort 2022 and during the six months benefited from amazing lectures, great support from the implementer team, and incredible mentorship sessions. As a very young start-up, we were immersed in technology development but lacked training in many essential areas for proper business management. The EWA program helped us to professionalise BioProcesia, adopting tools to draw up a correct business strategy and implement specific actions. In particular, it has greatly helped us in the preparation for our first round of investment that we have just opened. The programme has also opened the door to different stakeholders and potential investors. At a personal level, the EWA project has provided me a community of amazing women, from which I obtain a lot of support and very interesting collaborations.'

Guiomar Sanchez Carrón

**BioProcesia** 

Co-funded by the European Union

#### **EIT MANUFACTURING HIGHLIGHTS**







There were a total of 32 Innovation activities with 3 267 participants.

#### How does EIT Manufacturing define an innovation project?

At EIT Manufacturing, an innovation project is an activity focused on bringing new technologies to the market with the goal of transforming Europe's manufacturing to become socially and environmentally sustainable. EIT Manufacturing's purpose is to support breakthrough innovations that have reached sufficient maturity and need an extra push to be launched as a product or service in the market, resulting in real economic, environmental, and societal impacts.

The Intrepreneurship Challenge: This competition selects and supports manufacturing end users and employees in EIT RIS-eligible countries with their innovative projects. They get the support of solutions providers from EIT RIS-eligible countries to make their work safer, more ergonomic, more environmentally friendly, or that addresses challenges related to social issues.

This year, the programme had 20 participants from eight RIS-eligible countries (four Croatian, one Czech, one Estonian, three Greek, one Latvian, two Lithuanian, six Portuguese, and two Slovenian teams were selected).



## **BUSINESS CREATION**



EIT Manufacturing had a total of 30 business creation activities with 449 participants over the course of 2022.

The LEADERS Competition "Pitch trainings": LEADERS is a competition between women professionals, researchers, and entrepreneurs, each looking to play a leading role in solving manufacturing-related challenges in a way that positively boosts sustainability.

In 2022, 24 individuals from 11 RIS Countries (Croatia, Portugal, Italy, Türkiye, Slovenia, Spain, Poland, Czechia, Ukraine, North Macedonia, Lithuania) participated. "The Grand final event" saw six finalists give live pitches of their solutions before a jury. Three candidates were selected to received monetary prizes.



## ENTREPRENEURIAL EDUCATION



EIT Manufacturing ran 14 activities with a total of 464 participants.

TEACHING
FACTORIES
COMPETITION
Green Manufacturing

**Teaching Factories Competition on Green Manufacturing**: The Teaching Factory Competition is a lighthouse initiative of EIT Manufacturing's Education Pillar. The main objective is to promote the use of the Teaching Factories educational methodology.

A Teaching Factory is a collaboration space where practitioners bring experience from the factory to teach students, while students and faculty bring knowledge from the classroom to teach practitioners. The competition allows practitioners to give students real-life challenges in greener manufacturing and students a place to test their competencies. A couple of this year's challenges included developing a failure detection system for additive manufacturing machines and developing an affordable smart energy monitoring system.

During the EIT Manufacturing Summit Days 2022, in November, the winners of the first Teaching Factories competition have been selected. The three winners all came from RIS countries (Hungary, Croatia, Greece), and the special mention went to the North Macedonian team from Ss. Cyril & Methodius University.

## **EIT MANUFACTURING SUPPORTED START-UPS**

**OptySun:** OptySun is a Ukrainian RIS start-up supported by EIT Manufacturing through the "Pre-accelerator in Ukraine – powered by EIT Jumpstarter programme". OptySun developed a fully self-contained device for rapid water purification and disinfection even in emergency conditions. It can be used both indoors and outdoors. The device is their solution to the lack of free access to clean and safe drinking due to natural, humanitarian disasters, wars, and other crises. They were selected among 150+ Ukrainian applications and won first prize in the competition on 9 March 2023. The start-up also pitched their idea at the sTARTUp Day in the Nordic Deeptech PitchMatch – Science to Business competition (Estonia) on 16 March 2023, in which they won a prize for expert advice on technology.





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#### **EIT URBAN MOBILITY HIGHLIGHTS**



## INNOVATION PROJECTS



EIT Urban Mobility ran 11 project activities and 11 demonstrations alongside 36 entities and high number of testing citizens.

#### How does EIT Urban Mobility define an Innovation project?

EIT Urban Mobility looks for innovative projects whose entry into the market is realistic within one or two years at the latest. These projects should provide innovative answers to the challenges defined by the cities of the City Club, works with an international project team, and fits the strategic development directions supported by the company. Project participants must agree to some form of commercial agreement as this ensures that the support fund is replenished.

During the pilot of the innovation project, the operation of the solution must be demonstrated in real life, which in this form gives interested cities and other entities the opportunity to get to know the solution and evaluate it.

**Living Lab "Makerthon" by INVENTO – RIS Hub Croatia:** In cooperation with the Varaždin-based association Makerspace, Tech Park Varaždin, and the City of Varaždin, Invento Capital Partners organised the "Makerthon" Living Lab where the task was to design a system for the protection of romobiles (rollers) either independently or as part of the existing cycling infrastructure. These solutions had to be presented either as a physical product (prototype) or an elaborate conceptual solution.

A total of 19 teams (102 participants) competed at Makerthone with EPARK emerging as the victor. Their product will be used and evaluated by the citizens of Varaždin in several locations during 2023.



## **BUSINESS CREATION**



Nine business creation activities implemented with 335 participants.

Mobility Booster: EIT Urban Mobility's Mobility Booster is an open innovation programme where innovators create and test solutions to niche urban mobility challenges from industry stakeholders. Start-ups and pilot projects in Greece, Bulgaria, and Portugal receive support as they compete against each other for who can come up with the most impactful and feasible ideas. That support includes mentoring from industry insiders and investor pitch coaching from investors. Each start-up receives up to EUR 35 000 to implement their pilots.



## ENTREPRENEURIAL EDUCATION



There were four main education projects with a total number of 1 828 participants along with 30 outreach events with over 900 participants.

RIS Citython: Citython 2022 is an international event where participating teams have 54 hours to turn their ideas into a presentable project or prototype that can address urban challenges. In 2022, the focus was on urban mobility. A group of 213 experts and students in the fields of urban issues, business, UX, marketing, and big data worked together to create innovative solutions for four cities across Spain, Greece, and Slovakia.



#### **EIT URBAN MOBILITY SUPPORTED START-UPS**

**SimpleCharge**: This Latvian company created an innovative electric vehicle charging device that taps into existing street light infrastructure to provide convenient and accessible charging solutions. By utilising street light infrastructure for electric vehicle charging, SimpleCharge not only expands the charging network but also maximises the use of existing resources, making it a cost-effective and sustainable solution. It promotes the adoption of electric vehicles in urban areas, supporting the transition to clean transportation and reducing greenhouse gas emissions.

SimpleCharge was born in the incubation and acceleration programme Develop & Deploy delivered by the EIT Urban Mobility RIS Hub Latvia. It has now been awarded with an innovation project to be executed in 2023, serving as a clear example of what the EIT Urban Mobility start-up journey looks like.





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#### **EIT COMMUNITY HIGHLIGHTS**

**EIT Jumpstarter 2022**: 2022 saw a special Pre-Accelerator in Ukraine which helped high-potential, early-stage Ukrainian teams develop their business idea through online training, expert mentoring, and sub-granting. Selected teams won monetary prizes and gained access to the EIT Community network. This was part of the EIT Community's wider effort to support Ukraine during the Russian invasion. It was soon followed by more activities dedicated to this cause throughout 2023.

EIT Jumpstarter 2022 was also a huge success in the Western Balkans. 51 applications were received from the region, an improvement compared to last year's 45 applications. The most noticeable improvement was in the number of Western Balkans teams in the later stages of the programme which almost doubled compared to 2021. The same is true for the number of teams that made it into the programme's second phase.

#### In the Grand Final, three teams from the region won prizes:

- In the EIT InnoEnergy category, third place went to EV to go (Republic of North Macedonia)
- In the EIT Urban Mobility category, second place went to BeBeep (Montenegro)
- The Special Prize for the Best business idea from Western Balkans went to FCL (Serbia)

EIT 2022 Jumpstarter



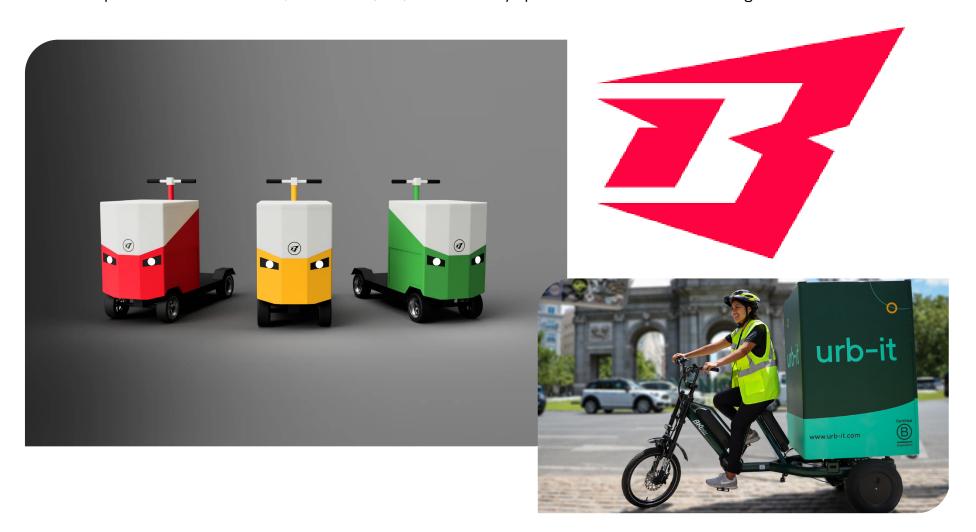




## **EIT COMMUNITY SUPPORTED START-UPS**

**Bruntor:** This Latvian team joined EIT Jumpstarter in April 2022 with only an idea. By the Grand Final in late November, they already had a working prototype they could showcase. Participants at this stage are usually ready only with their business plan.

Bruntor Cargo is a four-wheel electric scooter for last-mile delivery. It allows delivery of parcels, letters, or groceries 15% faster and five times cheaper than a van. It is small, 600x1400 (BxL) that can carry up to 850L of volume and 200Kg.



## CONCLUSION

The EIT RIS continued to register a growing level of success in supporting the EIT Community achieve strong results in the EIT RIS geographical area over the course of 2022. The EIT RIS' overall positive performance becomes evident when using the Horizon Europe average results in both the EIT RIS geographical area and widening countries as a benchmark.

In 2023, the EIT continues its efforts to further improve the performance of the EIT RIS with special attention to strengthening its network of EIT RIS Hubs which has been instrumental to the success of the EIT RIS since the early days of its establishment. EIT RIS Hubs form the backbone of the EIT RIS' 'place-based' innovation approach. They foster closer interactions between local innovation actors and link local innovation ecosystems to the EIT's pan-European innovation network. They also help attract and integrate potential new partners and participants from their local innovation ecosystem into the EIT Community's activities.

Given their importance (while also building on the work of EIT RIS Information Coordination Service, which was run by the EIT in select EIT RIS-eligible countries in 2021-2022), the EIT published a set of minimum standards and guiding principles for EIT RIS Hubs in September 2022. This document, which will start being fully implemented in 2023, sets out a common strategic approach which will underpin the establishment and operation of all EIT RIS Hubs, aimed at ensuring their consistent effectiveness in contributing towards achieving the EIT's objectives and targets, whilst also rationalising the EIT Community's on-the-ground presence. It also sets out a basis for the gradual establishment of a network of EIT Community RIS Hubs, covering all countries and territories eligible for the EIT RIS in 2021-2024 until the end of 2025. These Hubs will differ from the current RIS Hubs by serving as a one-stop-shop for the whole EIT Community. The first pilot call for EIT Community RIS Hubs in Latvia and North Macedonia were issued at the end of 2022.











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