WORLD'S LARGEST INNOVATION COMMUNITY IN THE RAW MATERIALS SECTOR

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EIT RawMaterials is supported by the EIT, a body of the European Union

2022

EIT INNOVATION COMMUNITIES

Leading European initiatives that empower innovators and entrepreneurs to develop world class solutions to societal challenges and creates growth and scaled jobs.

Raw Materials as Key Enabler for the Transition into a Green Economy

Brown Economy

Fossil Fuels for combustion engines, generators and power stations: oil. gas, coal

Energy Transition

Green Economy

Functional Materials in e-motors, energy storage, energy conversion containing, for example, Co, Li, Pt, REE, Ge, Ga, Si, V

Fundamental shift in the resource basis of a society

Source: Agarwal et al. 2017 Green Transparency.

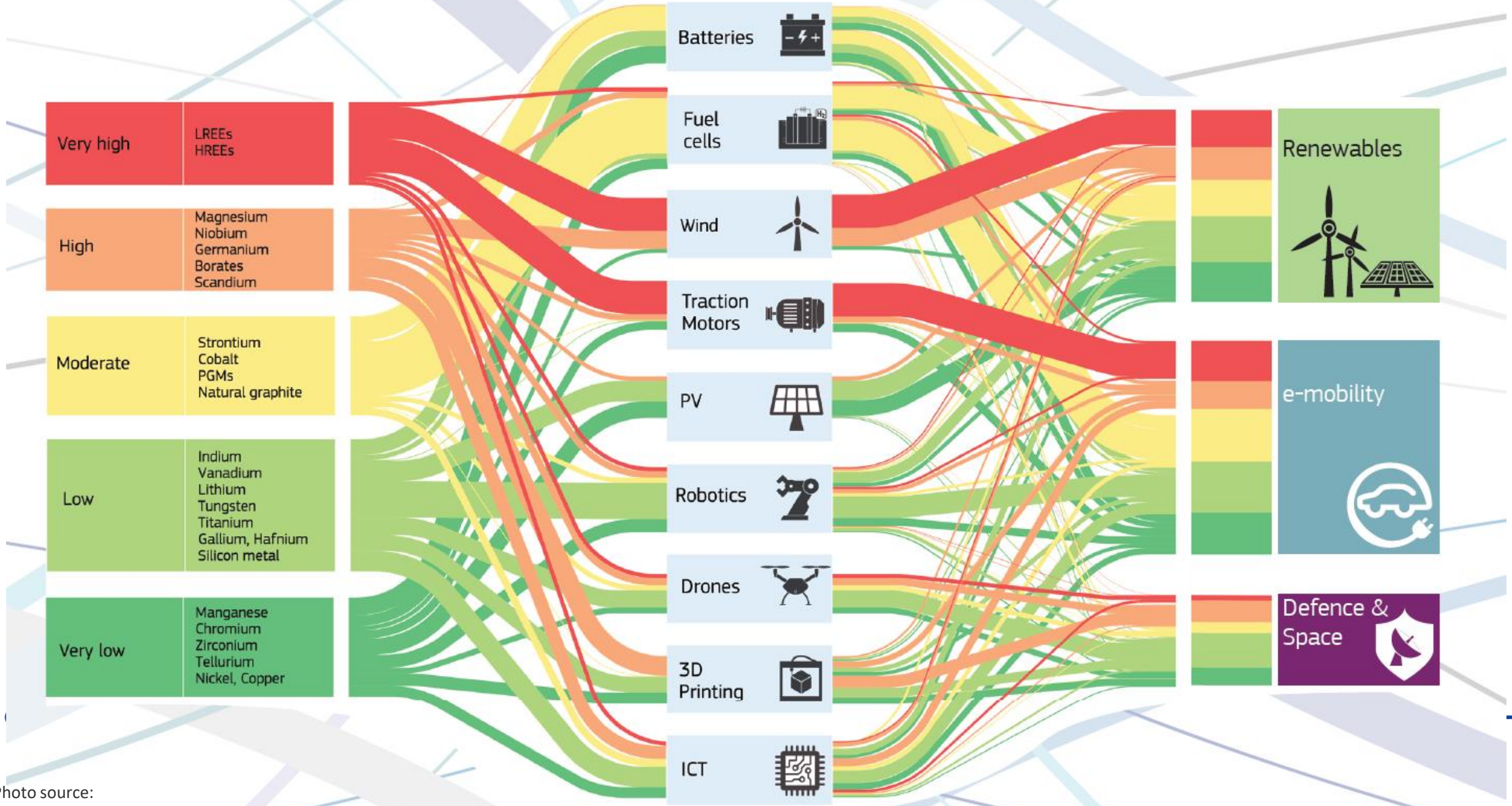


Photo source:
Critical Raw Materials for Strategic Technologies and Sectors in the EU: *A Foresight Study*
https://ec.europa.eu/docsroom/documents/42881/attachments/1/translations/en/renditions/native

CRITICAL RAW MATERIALS FOR EU

Fourth list of critical raw materials for the EU of 2020

2020 critical raw materials (new as compared to 2017 in bold)		
Antimony	Hafnium	Phosphorus
Baryte	Heavy Rare Earth Elements	Scandium
Beryllium	Light Rare Earth Elements	Silicon metal
Bismuth	Indium	Tantalum
Borate	Magnesium	Tungsten
Cobalt	Natural graphite	Vanadium
Coking coal	Natural rubber	**Bauxite**
Fluorspar	Niobium	**Lithium**
Gallium	Platinum Group Metals	**Titanium**
Germanium	Phosphate rock	**Strontium**

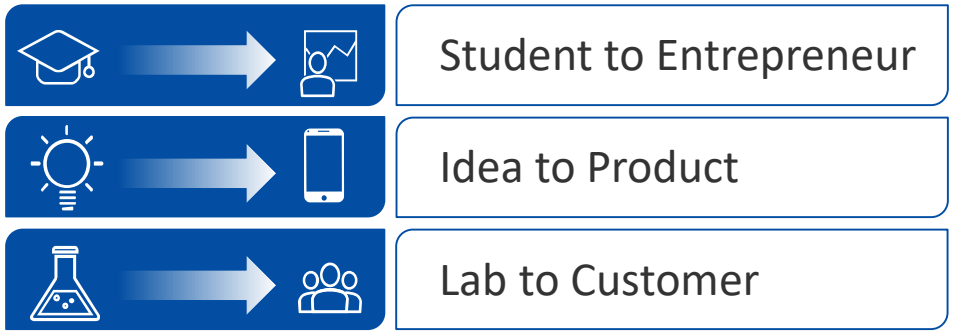
Source: https://ec.europa.eu/growth/sectors/raw-materials/specific-interest/critical_en

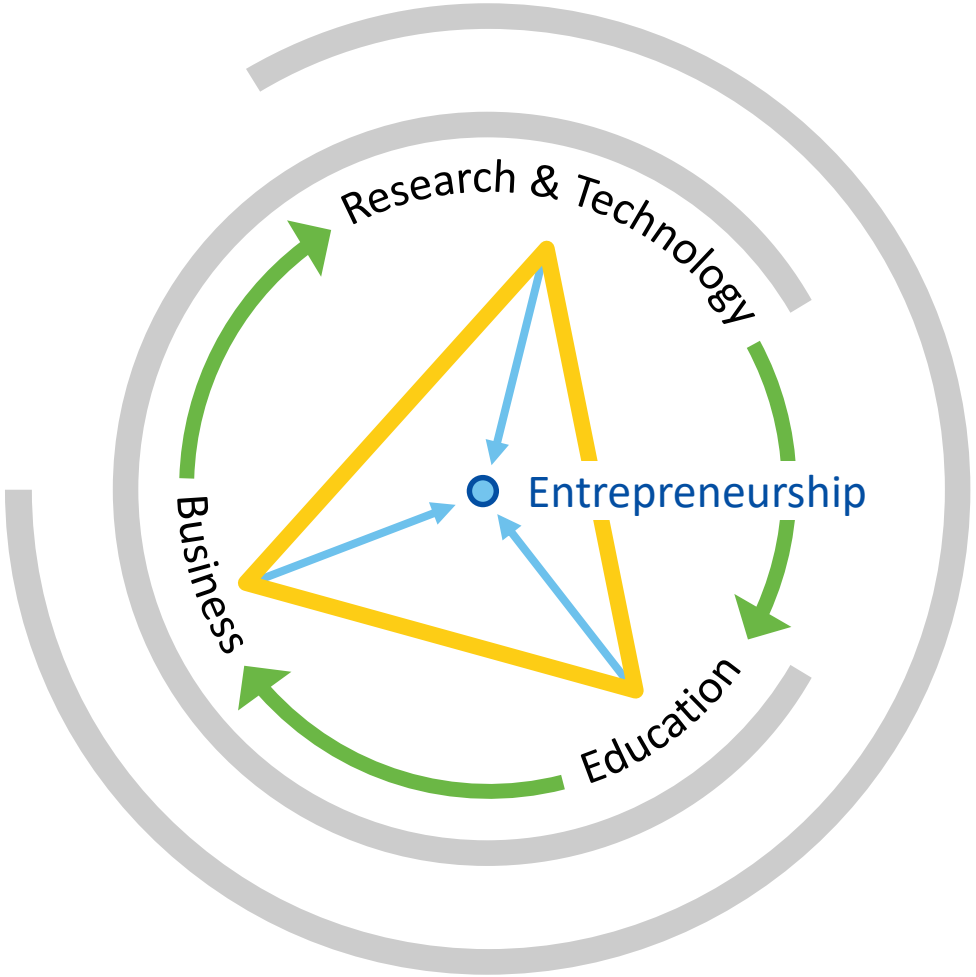
EIT (EUROPEAN INSTITUTE OF INNOVATION AND TECHNOLOGY)

The EIT is an EU body that enhances Europe's ability to innovate by nurturing young entrepreneurial talent and supporting new ideas through the Innovation Communities.

The EIT is the first EU initiative bringing together the three sides of the 'knowledge triangle': Business (companies and SMEs), Higher Education Institutions and Research Centres.

The EIT aims to increase the cooperation and integration between education, business and research to facilitate the transition from:



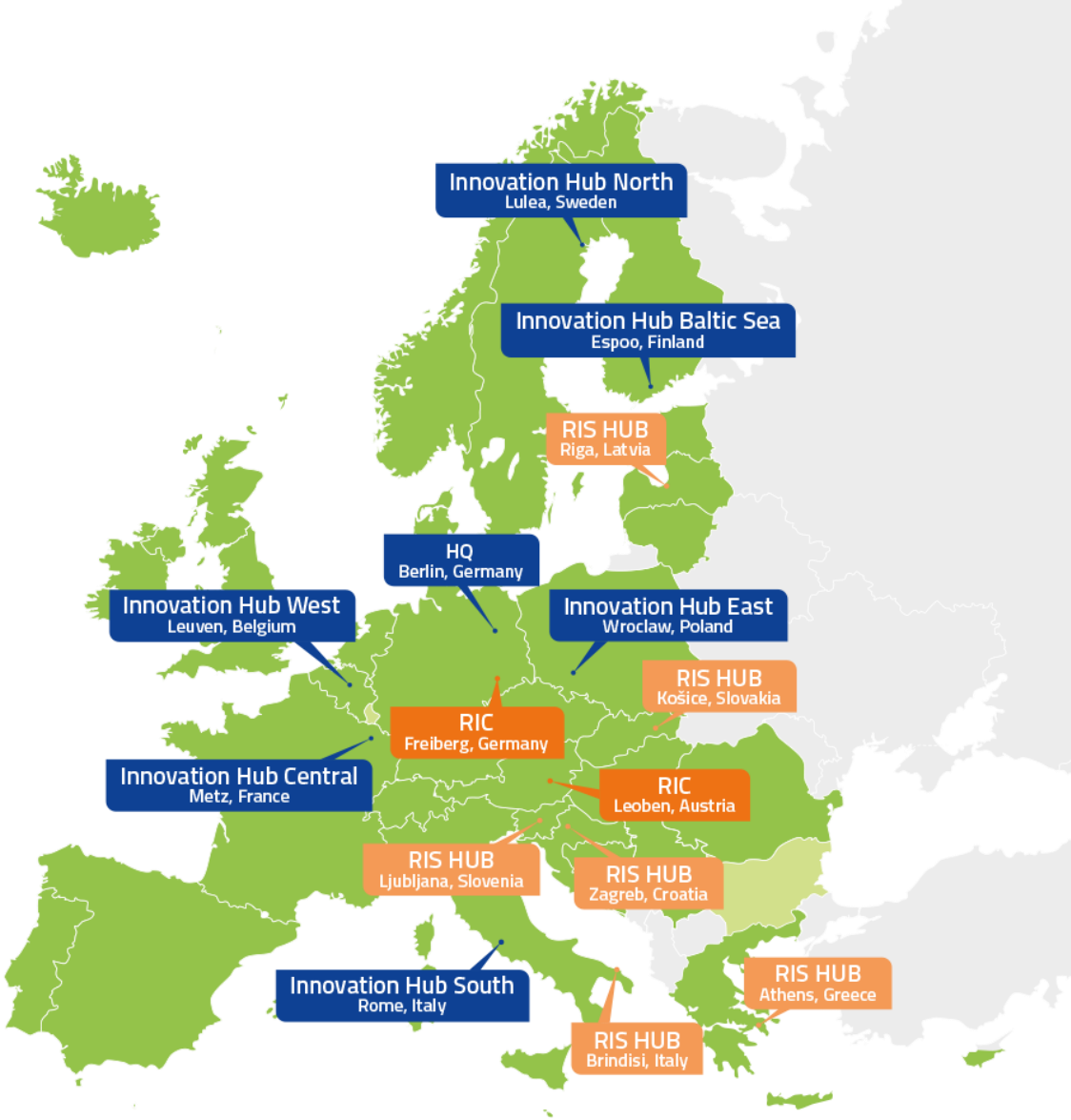


EIT RAWMATERIALS INNOVATION THEMES

- **Exploration** and raw materials resources assessment
- **Mining** in challenging environments
- Increased **resource efficiency** in mineral and metallurgical processes
- **Recycling** and material chain optimisation for end-of-life products
- **Substitution** of critical and toxic materials in products for optimised performance
- Design of products and services for the **circular economy**

A PAN-EUROPEAN PARTNER NETWORK

- Coverage of the entire raw materials value chain
- World's largest community in the raw materials sector
- Over 120 core and associate partners and 180+ project partners
- 22+ countries
- 6 Innovation Hubs across Europe
- 8 Regional Innovation Hubs/Centers
- Headquarter in Berlin, Germany



Countries covered by EIT RawMaterials
EU countries
Innovation Hub
RIC (Regional Innovation Center)
RIS HUB (Regional Innovation Scheme)

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RawMaterials Hub
Regional Center Baltic

1862
RIGA TECHNICAL UNIVERSITY

ktu
kaunas university of technology
1922

TAL TECH

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ACCELERATE THE PORTFOLIO!

Create

- **Business Idea Competition**

TRL 1 -3
Idea holders

Capture

- **EIT RM Accelerator**
- **Booster funding**
- **Collaborative Pitch**

TRL > 4
Entrepreneurs, startups

Deliver

- **Open Co-creation**
- **Innovation Projects**

TRL > 5
Project consortium

Realise

- **Investor Outreach**
- **Co-investment**
- **RM Summit**

IRL > 5

Value

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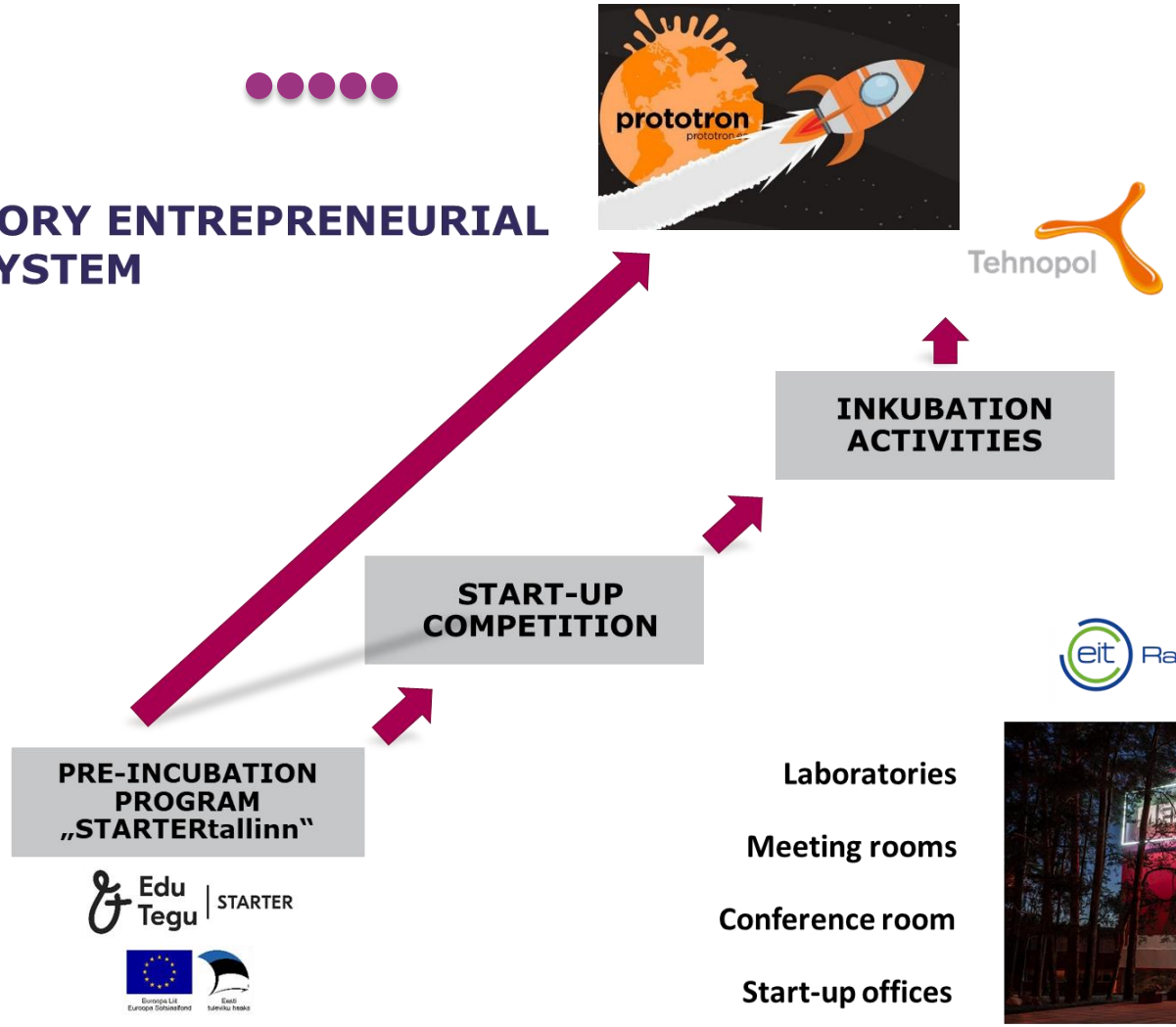
TAL TECH

MEKTORY ENTREPRENEURIAL ECOSYSTEM



Partnership

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eit Digital

- Laboratories
- Meeting rooms
- Conference room
- Start-up offices

WELCOME TO JOIN US ON THE

MASTERS COURSE FOR
CIRCULAR ECONOMY FOR MATERIALS PROCESSING
6 CREDITS

What

MC-CEMP is a course aimed at Master level students interested on:

- Circular Economy of Raw materials
- Sustainable Materials Processing
- Entrepreneurial skills

When and how

- Online courses covering all raw materials value chain from mining to material recycling and re-use
- Project work based on prepared assignments or student own proposed raw material related topic or completing final quiz
- Course can be linked with STARTERtallinn programme, i.e project work and one-pager in STARTERtallinn can be same idea

More information

- Course coordinator and contact point: Karin Robam, karin.robam@taltech.ee
- https://taltech.ee/en/sustainable-production-masters-course

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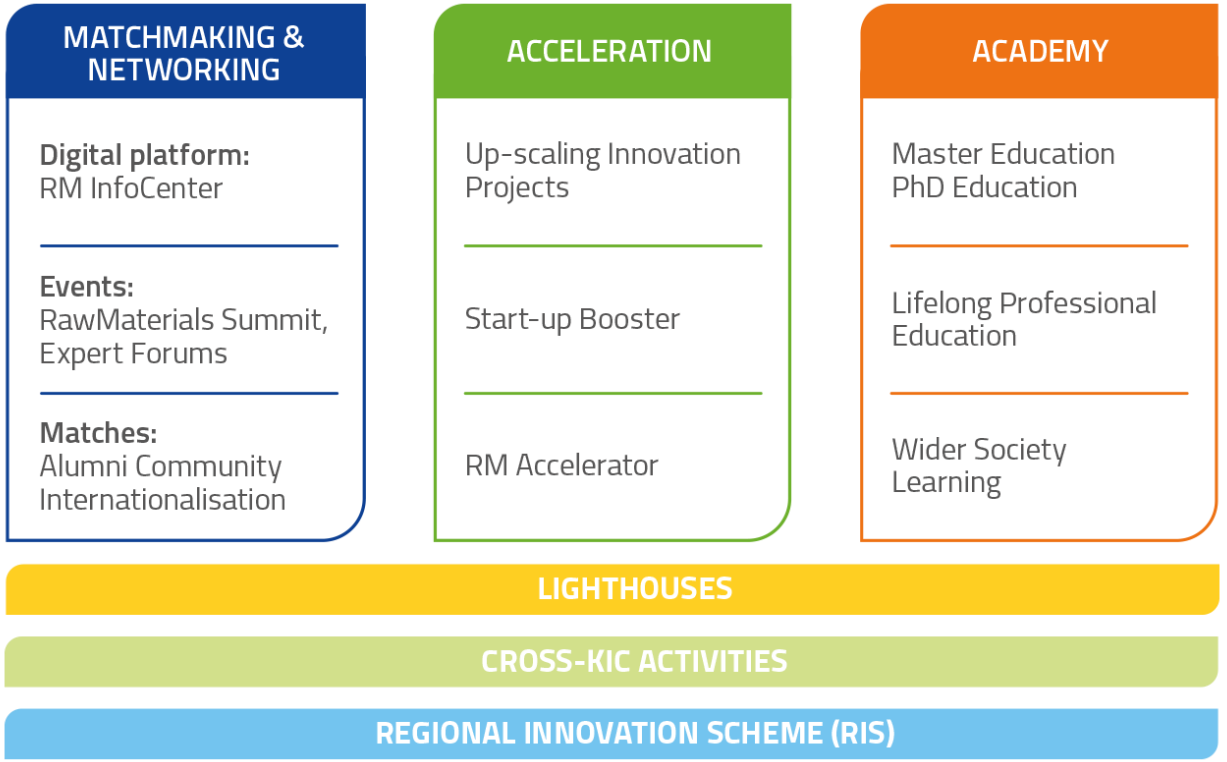
INNOVATION, EDUCATION AND ENTREPRENEURSHIP ACTIVITIES



EIT RAWMATERIALS INNOVATION THEMES

EXPLORATION
AND RAW MATERIALS RESOURCE ASSESSMENT

MINING
IN CHALLENGING ENVIRONMENTS

PROCESSING
INCREASED RESOURCE EFFICIENCY IN MINERAL AND METALLURGICAL PROCESSES

RECYCLING
AND MATERIAL CHAIN OPTIMISATION OF END-OF-LIFE PRODUCTS

SUBSTITUTION
OF CRITICAL AND TOXIC MATERIALS IN PRODUCTS FOR OPTIMISED PERFORMANCE

CIRCULAR ECONOMY
DESIGN OF PRODUCTS AND SERVICES FOR THE CIRCULAR ECONOMY

KONTAKT JA IDEEDE VALIDEERIMINE

EIT Raw Materials organizing different funding opportunities during the year.

To validate your idea readiness for the funding call, please fill the form.

http://tiny.cc/validateEITrawmaterials

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LIGHTHOUSE INNOVATION PROGRAMMES

Lighthouses will be implemented through strategic and operational actions such as Innovation and Education Projects, Matchmaking events and Business creation activities as well as:

- Strategic actions in close coordination with external stakeholders
- The European Commission
- National initiatives and Cross-KIC activities

High-impact activities will contribute to the solution of important societal challenges and that will enhance the role of EIT RawMaterials as a leading innovation community

Identifying future challenges and developing the ability to address them in the partnership

EIT RawMaterials Lighthouses are strategic innovation initiatives in the raw materials sector that address economic and societal challenges in Europe.

SUSTAINABLE DISCOVERY AND SUPPLY

Sustainability starts with Europe's resource potential

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SUSTAINABLE MATERIALS FOR FUTURE MOBILITY

Innovation in electrification and lightweight design enabling green energy transition

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RAW MATERIALS AND CIRCULAR SOCIETIES

Closing material loops: a radical shift from linear to circular thinking

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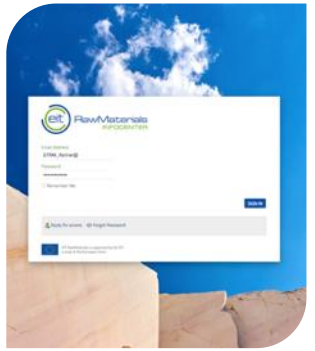
MATCHMAKING & NETWORKING

InfoCenter: A digital collaboration & networking platform for partners that offers the following:

- Networking, collaboration, sharing of news and exchange ideas
- Get the latest news on the community and register for the events
- A data mining & intelligence platform



Open Innovation Events: Networking activities focused on global challenges and value chain integration as well as in-depth thematic events

RawMaterials Summit: Global annual conference which includes technical sessions, investors forum, career fair and a trade show.

Alumni Community offers networking, careers and mentoring opportunities to individuals and organisations.

Internationalisation activities focus on global outreach expanding towards international regions of strategic importance taking into account synergies with various EU actions.

INNOVATION & ACCELERATION

Acceleration activities ensure the development, demonstration and transfer of innovative processes, technologies, products and services towards the market.

Activities cover innovative technology focused demonstration and validation projects with a strong focus on feasibility and application.

Upscaling innovation projects target:

- Integration of existing technology
- De-siloing and value chain co-operation
- Bringing technologies to the market

Start-up booster

- Supporting new start-ups, spin-offs and SMEs in creating their business models

RM Accelerator

- Accelerate start-ups (scouting, business model development, funding and technology, coaching, incubation)

eit RawMaterials ACCELERATOR

INNOVATION IN EDUCATION – RAWMATERIALS ACADEMY

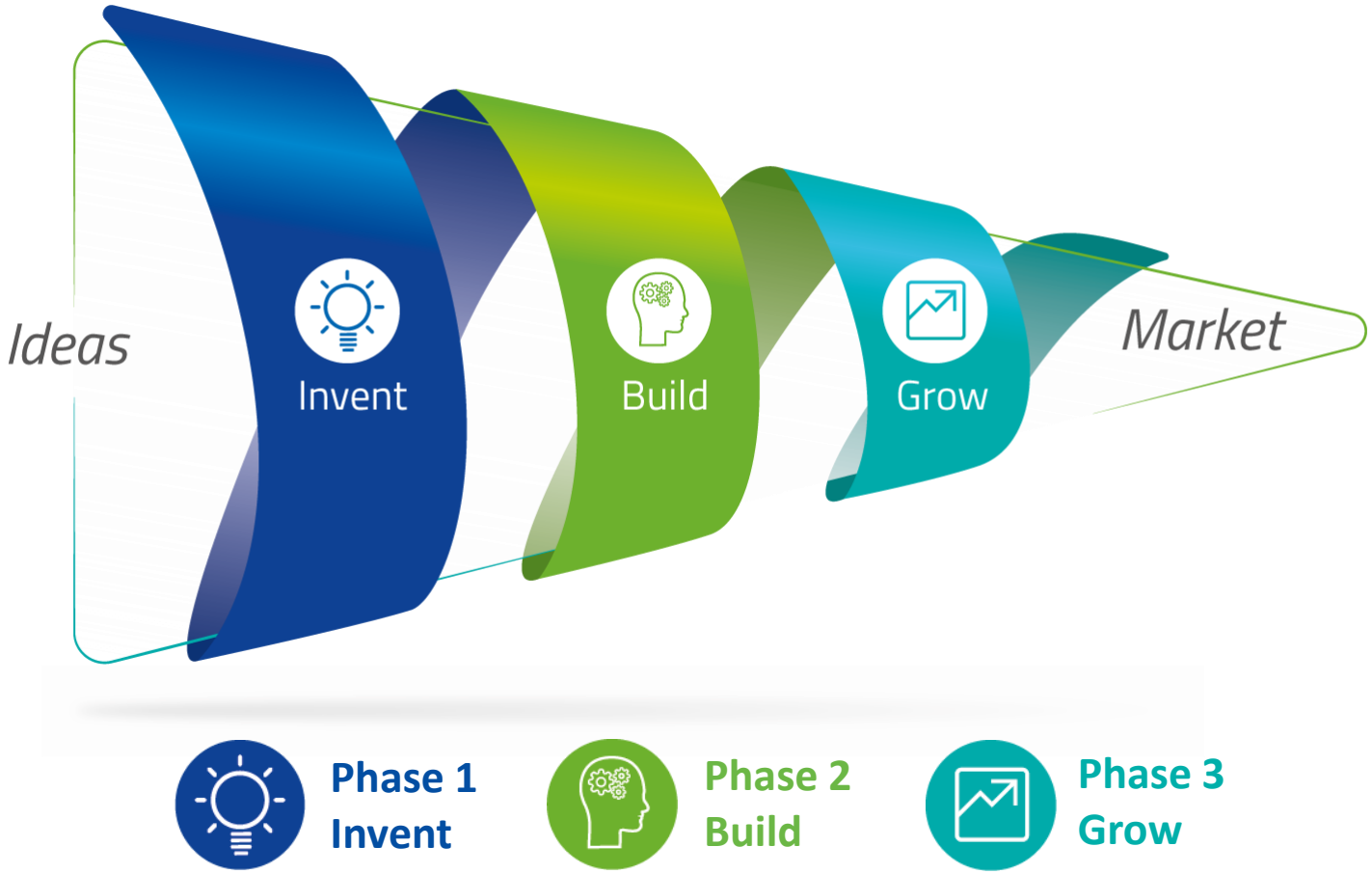
The RawMaterials Academy strives to educate the raw materials game-changers of the future and ensure that Europe cultivates a society of learners contributing to a strong EU raw materials base.

Master and PhD Programmes: Strengthen students' technical expertise while fostering entrepreneurial and innovation skills and a problem solving mindset.

Lifelong Professional Education: Courses offer education for raw materials professionals based industry needs.

Wider Society Learning: Aims to raise awareness among young students (16-18 years) to ensure the availability of professionals in the future.

EIT RAWMATERIALS ACCELERATOR: BRINGING IDEAS TO THE MARKET!



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Industry

WORLD'S LARGEST INNOVATION COMMUNITY IN THE RAW MATERIALS SECTOR

Research and Technology Organisations

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Universities

EIT RAWMATERIALS AND UN SDGS

Metals, minerals and raw materials and sustainable management of natural resources, are essential in securing the transition to green energy technologies and achieving UN SDGs.