

EIT Raw Materials: Developing raw materials into a major strength for Europe

REMIX Workshop
Fundación Santa Bárbara
La Ribera del Folgoso, León, España

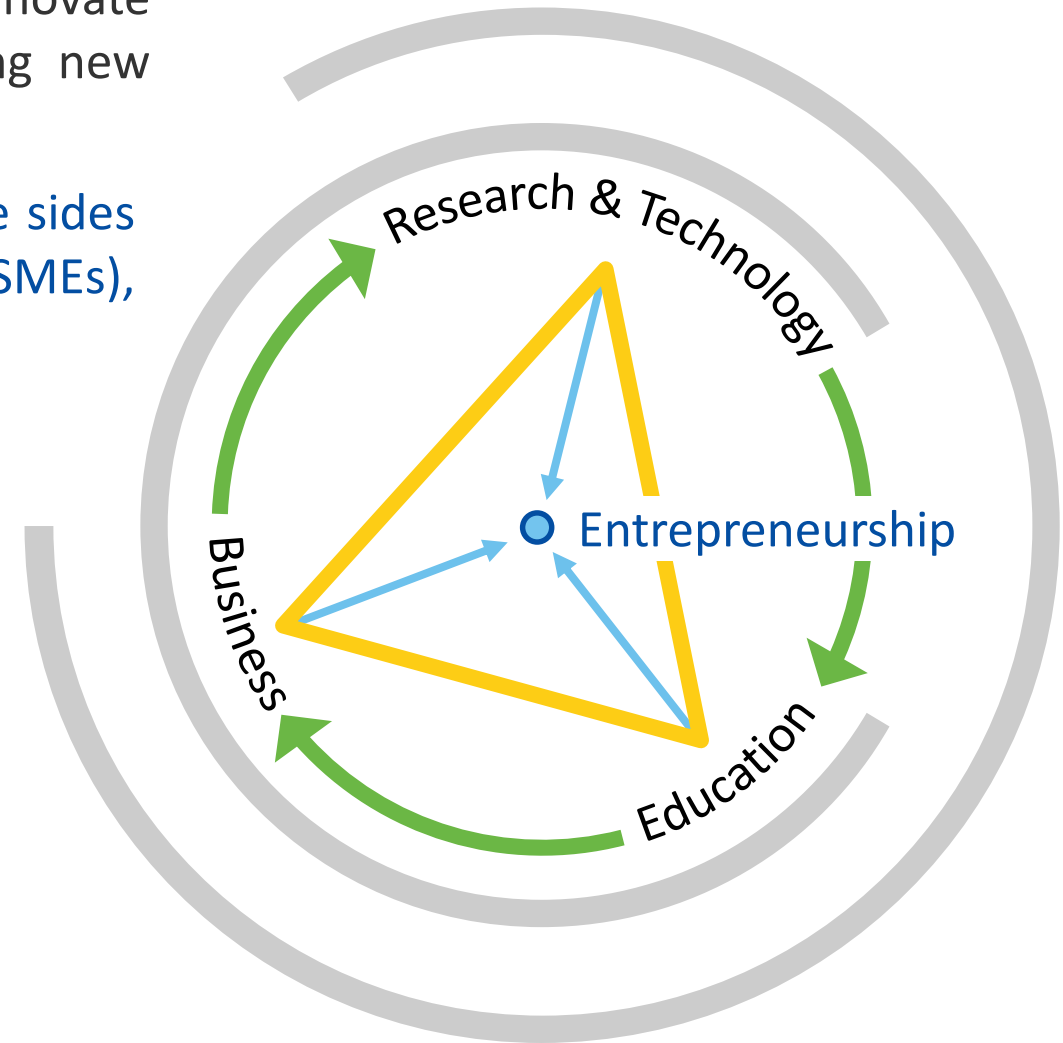
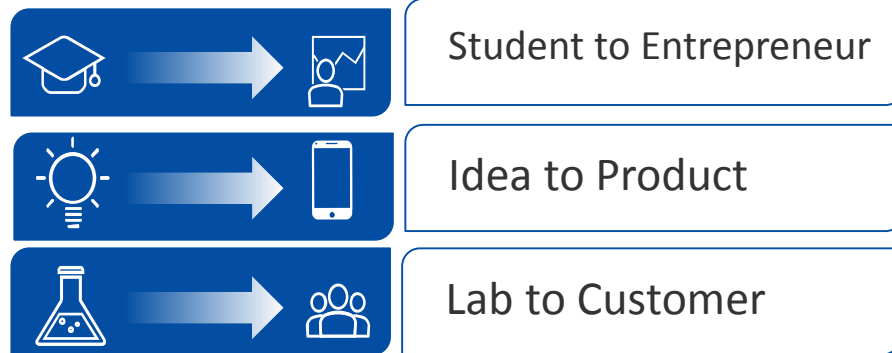


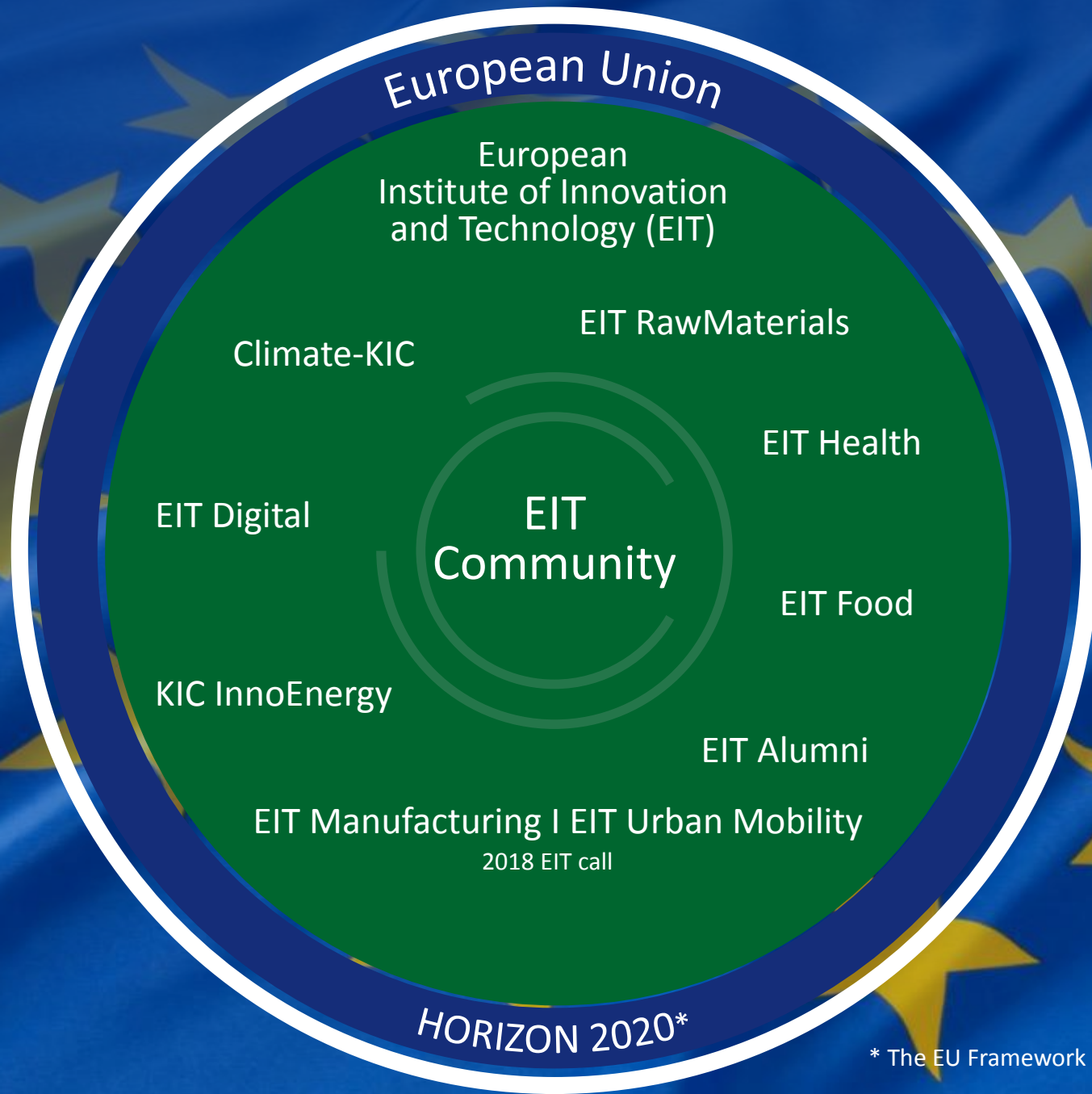
EIT (European Institute of Innovation and Technology)

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.

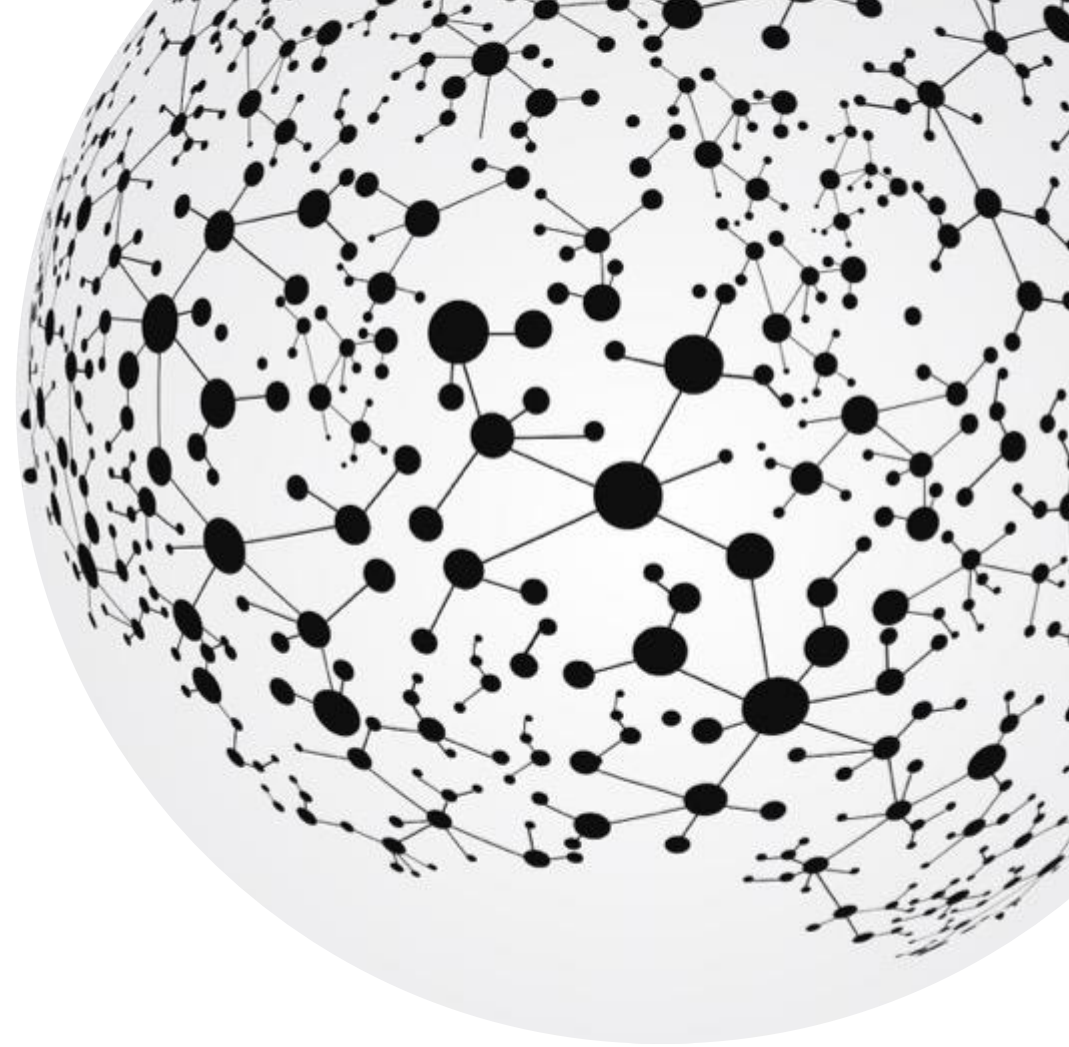
The EIT aims to increase the cooperation and integration between education, business and research to facilitate the transition from:





Raw Materials sector predictions

- A strong move towards recycling and circularity
- Mining will not disappear
- The need for raw materials will not disappear
- Technology will matter more than ever
- Understanding the value chains is important



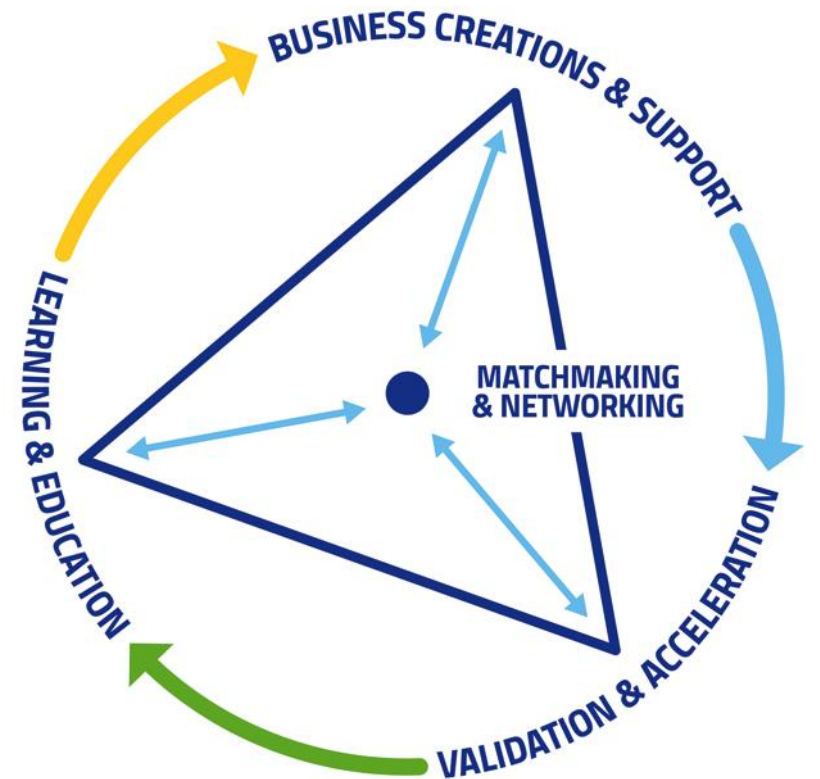
EIT RawMaterials vision and mission

EIT RawMaterials vision is to develop raw materials into a major strength for Europe.

Its mission is to enable sustainable competitiveness of the European minerals, metals and materials sector along the value chain by driving innovation, education, and entrepreneurship.

EIT RawMaterials strategic objectives are:

1. **Securing raw materials supply:** collaborating across the entire industrial value chain
2. **Designing solutions** for materials innovation, products and processes
3. **Closing material loops:** a radical shift from linear to circular thinking



Partners

Industry



Partners

Research and Technology Organisations

ASTER



Partners

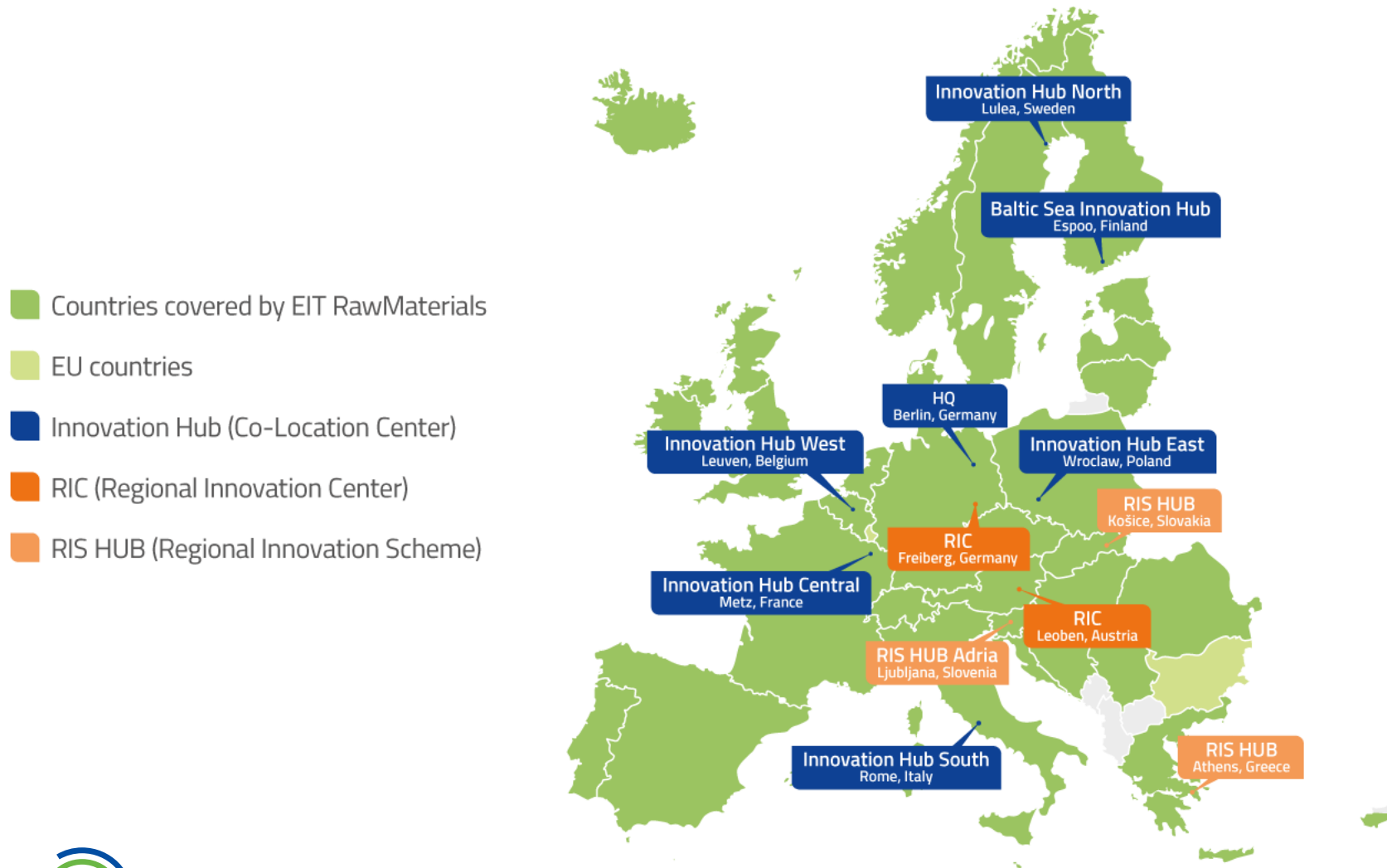
Universities



Access to the Consortium

- **Project Partner :**
 - Annual fee: 10 keuro
 - Maximum contribution receivable: 100 keuro/year
- **Associated Partner :**
 - Annual fee: 30 keuro
 - Maximum contribution receivable: 300 keuro/year
- **Core Partner:**
 - Annual fee: 100 keuro
 - No limit in the contribution receivable
- **Process:**
 - *“membership application”* to be sent to *General Assembly*

EIT RawMaterials Key numbers - Innovation Projects



120+
Core and associate partners

190+
Project partners

20+
EU countries

220
Number of projects

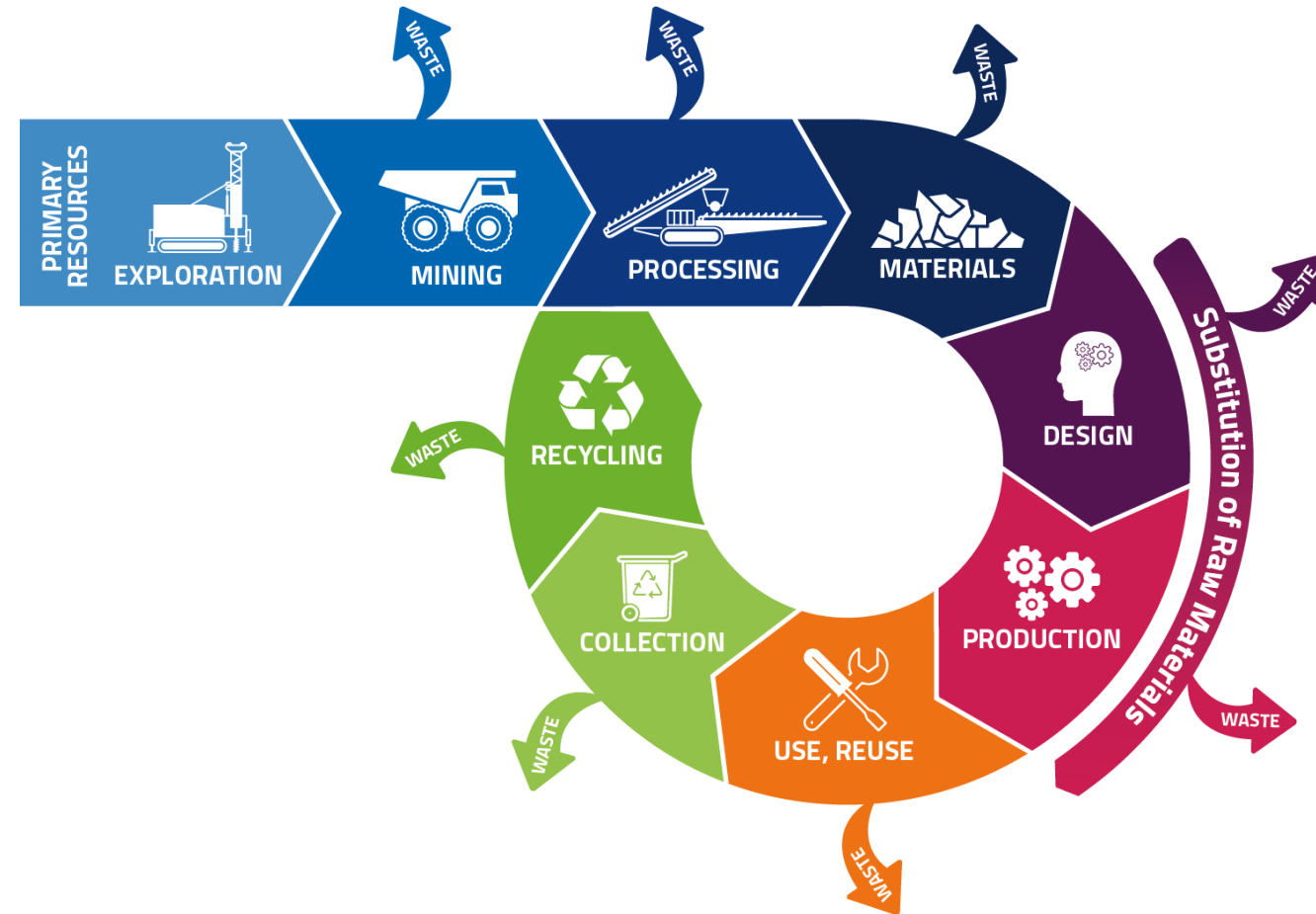
€ 67.8m
Total projects funding

580
Number of jobs created

EIT RawMaterials Innovation Themes

The themes represent the different links of the raw materials value chain:

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



Exploration and raw materials resource assessment

Identification and evaluation of the techno-economic value of ore bodies, residue stocks and landfills is vital for the valorisation of Europe's resource potential and for a secure raw materials supply.

Innovation areas include:

- Transformation and adaptation of value estimation methods from primary to secondary resources
- 3D/4D modelling of ore belts and regimes based on big data interpretation
- Deep exploration techniques



Courtesy of C. Østergaard, 21st North ApS

Mining in challenging environments

Innovative mining solutions for extraction of materials from resources not previously exploited for economic, environmental or safety reasons.

Innovation areas include:

- Mining automation, remote control and advanced maintenance systems
- Effective integration of rock mechanics, mine planning and operations
- Technologies and concepts to mine the sea bed in a sustainable way



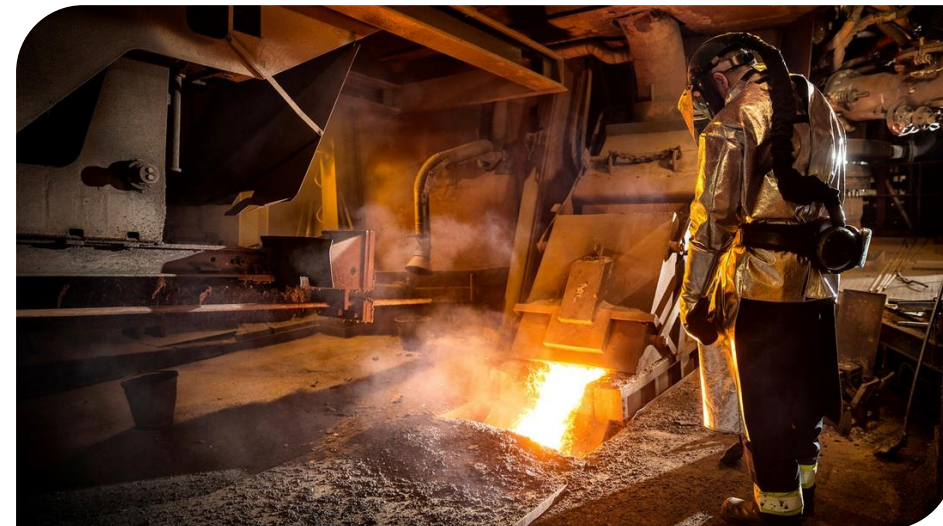
Courtesy of New Boliden

Increased resources efficiency in mineral and metallurgical processes

A step-change is required to enable treatment of resources of decreasing grade and increasing complexity.

Innovation areas include:

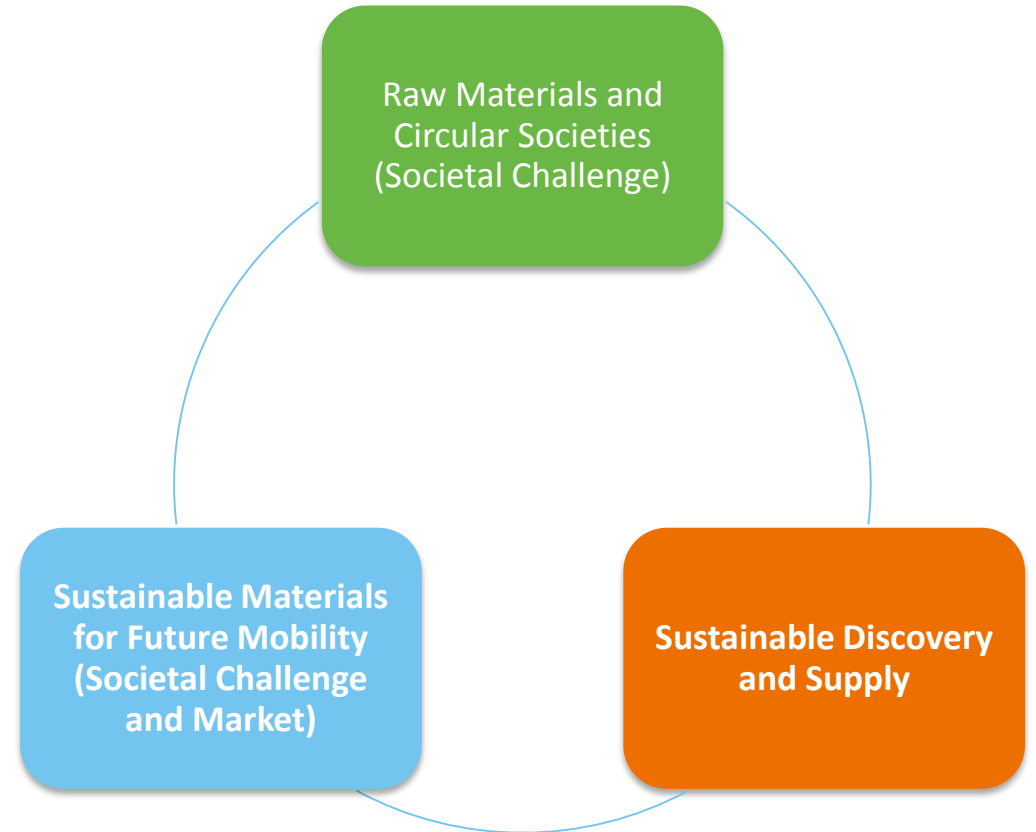
- Flexible and economic treatment of complex material feed streams
- Increase of impurities due to recycling
- New products from waste and solutions for an increased reuse of process residues



Experimental blast furnace in Luleå, Photo courtesy of LKAB

Lighthouses

- The scope of the Lighthouses is to generate impact that goes beyond that created by individual projects and consortia
- Funnelling synergies and expertise already existing within the partnership into coordinated high-impact activities that 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



Two Lighthouses to be initiated in 2018

- Raw Materials and Circular Societies
- Sustainable Materials for Future Mobility

At least one additional Lighthouse to be implemented in 2019

- Sustainable Discovery and Supply

Sustainable Materials for Future Mobility

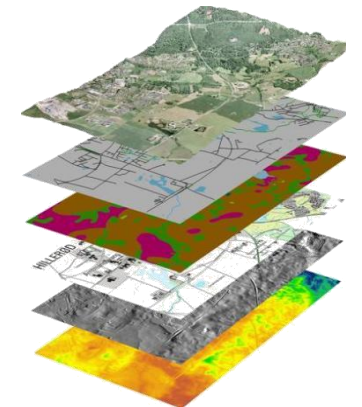
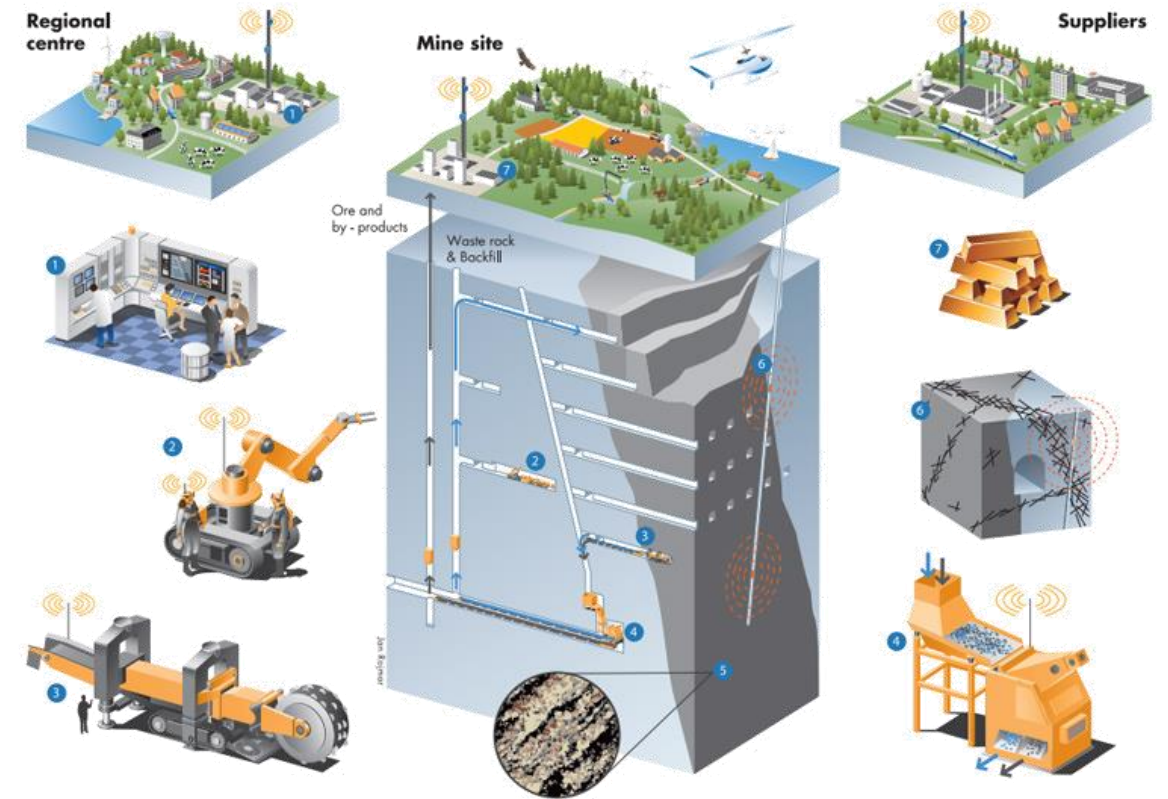
(Societal Challenge and Market)

- Raw materials and advanced materials for two key innovation trends in mobility: electrification and lightweight design
- Innovation across specific value chains is considered
- **Materials for electrification**
- Fuel cells, batteries, magnets, e-drives
- **Materials for lightweight design**
- Steels, composites, multimaterials, non-ferrous alloys

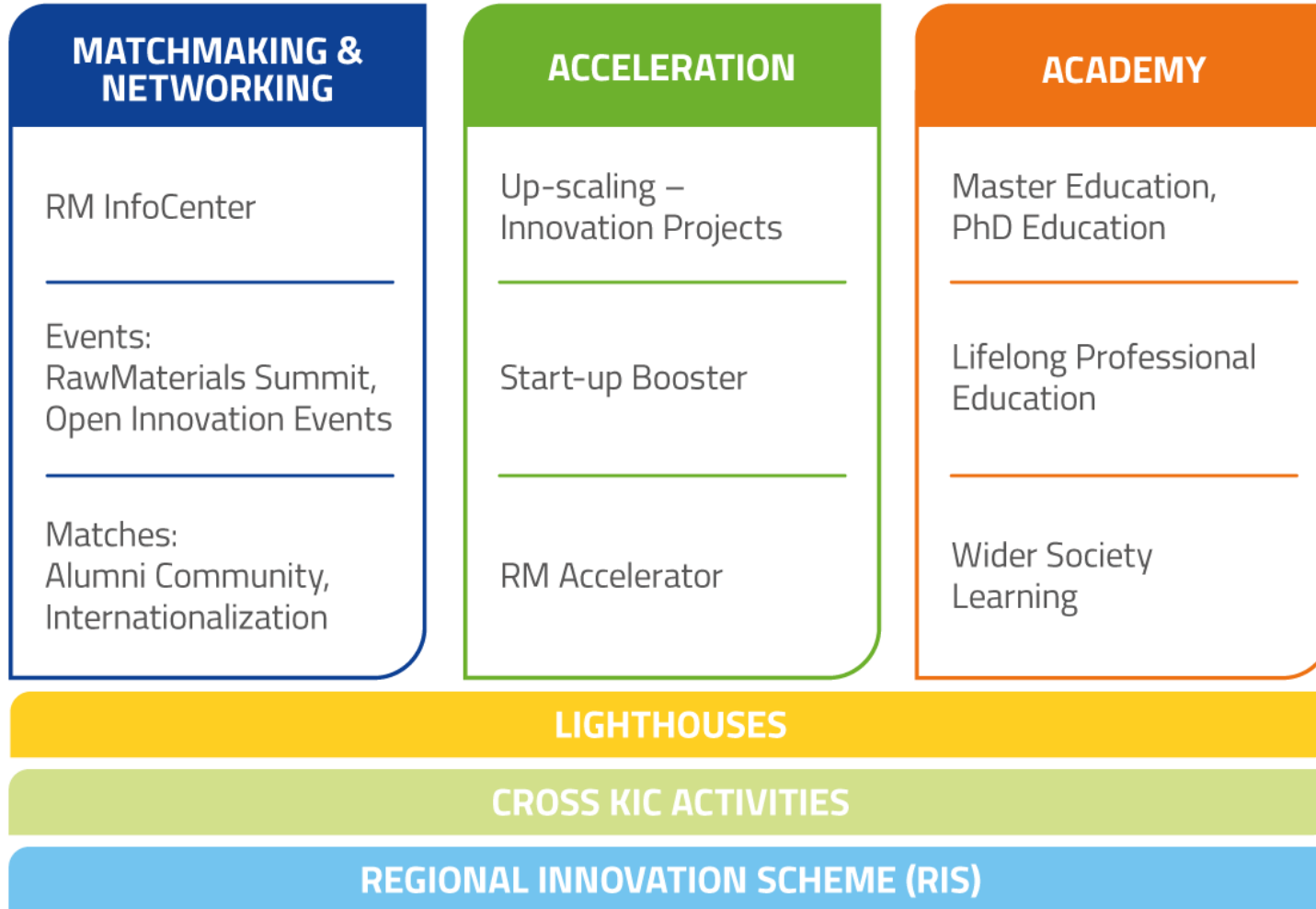


Sustainable Discovery and Supply *To be launched in 2019*

- Focus on exploration, mining and processing of primary and secondary raw materials, and on public acceptance



Matchmaking & Networking, Acceleration, Education Activities



Innovation in Education - RM Academy

- **Master and PhD Education:** Modules for Programmes focus on raw materials themes and industry needs
- **Lifelong Professional Education:** Industry needs focused education for qualified professionals
- **Wider Society learning:** Aims to raise awareness of the young students general public



EIT RawMaterials key numbers - Education



249
PhD and Master students enrolled



40+
Nationalities represented



102
Partners engaged




177
Alumni association members



8 MOOCs
Developed by EIT RawMaterials Academy & partners

Master and PhD Education

7
EIT Labelled Master and PhD programmes



216
Students enrolled in the EIT Labelled programmes

RM@Schools & Junior Achievement

35+
Events

20
Countries

3500+
School pupils participated

RM University Days

9
Events

Zagreb, Padova, Milan, Tallinn, Wroclaw, Leoben, Leuven, Madrid, Lund

3000+
Number of participants

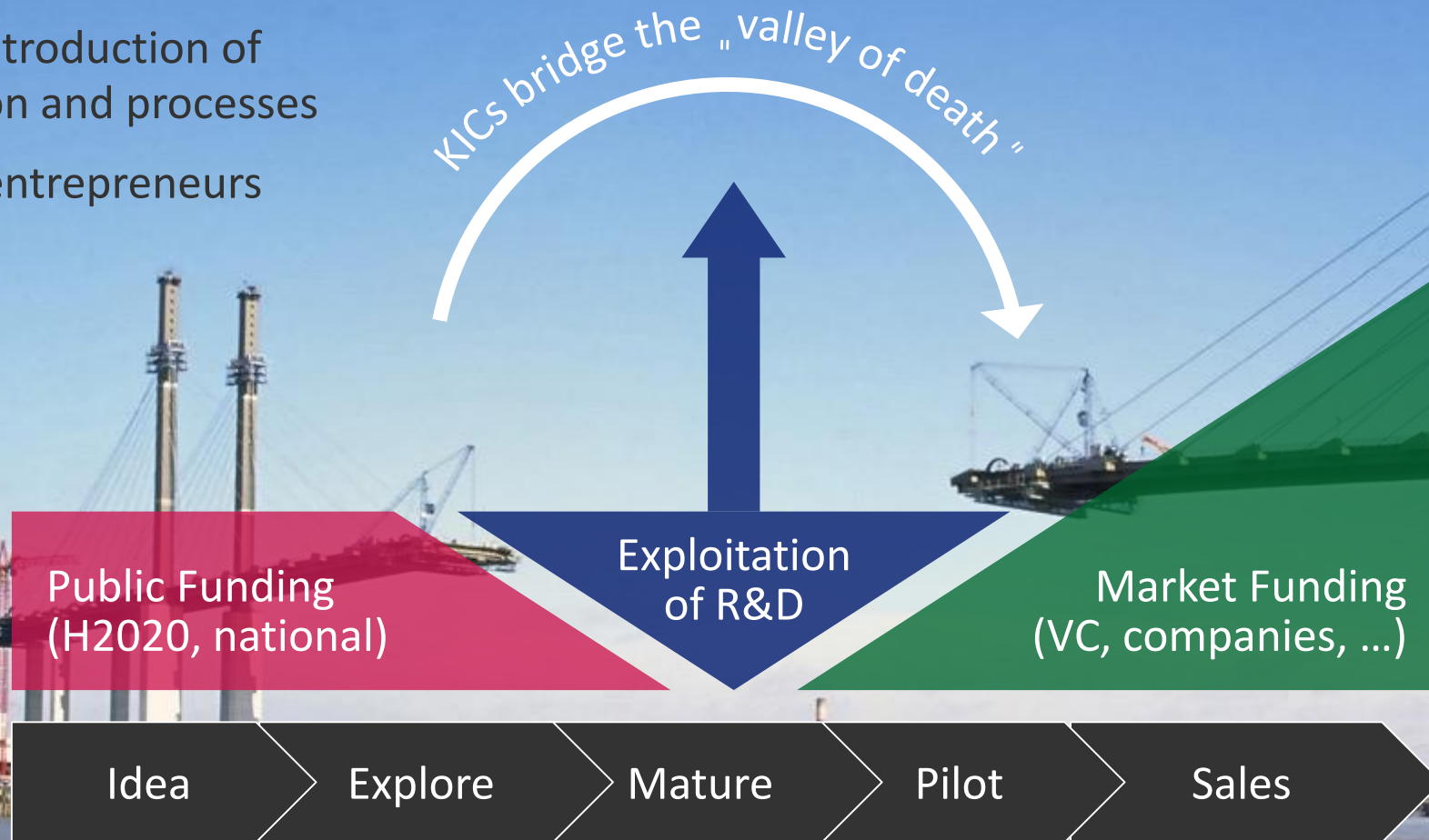
Innovation & Acceleration

- **Up-scaling innovation projects**
 - Integration of existing technology
 - De-siloing and value chain co-operation
 - Bringing technologies to the market
- **Start up booster**
 - Providing soft landing for SMEs expansion and tailor-made benchmarking and matchmaking of local / regional actors
 - Supporting new spin-offs and existing SMEs in creating their business
- **RM Accelerator**
 - Supporting new start-ups (scouting, business model development, funding and technology, coaching, incubation)

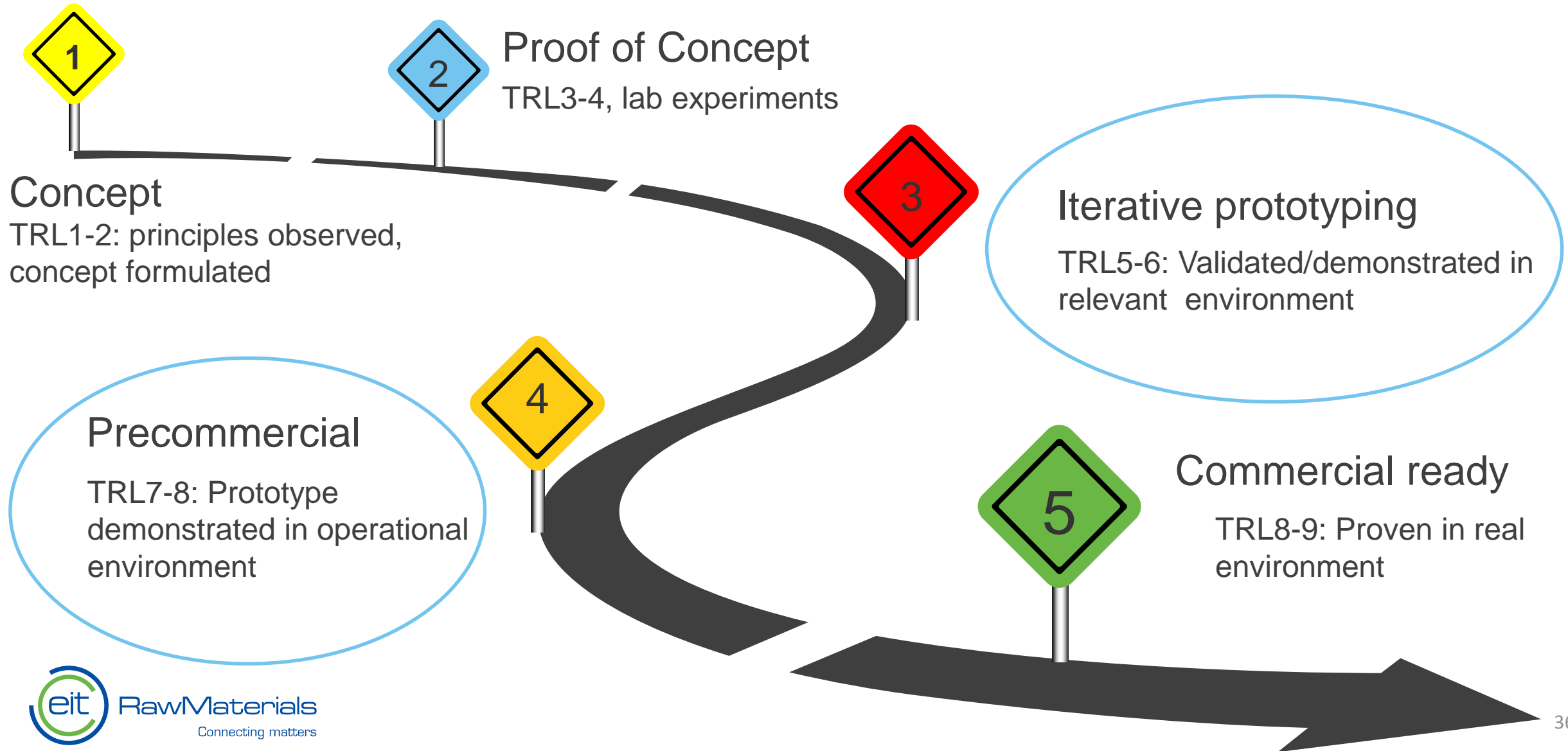


What is the purpose?

- Bridging the valley of death
- Market introduction of production and processes
- Educate entrepreneurs



Where are you in the innovation process?





EIT Jumpstarter



EIT Health, EIT RawMaterials and EIT Food are supported by the EIT, a body of the European Union

Turn your innovative idea into a budding business!

Welcome to our joint EIT JumpStarter Competition 2019 co-organised with EIT Health and EIT Food! EIT JumpStarter Competition is an **innovation contest** aiming to reach out, identify and **support the best ideas from researchers, professionals and early-stage start-ups**, with a potential **impact in the Raw Materials Value Chain**.



<https://eitrawmaterials.eu/jumpstarter-competition-2019/>

EIT RawMaterials Accelerator: Bringing Ideas to the Market!



Phase 1
Invent



Phase 2
Build



Phase 3
Grow

<https://eitrawmaterials.eu/accelerator-program/>

START-UP BOOSTER AND SME CALL

The Call 2019 is open
throughout the year with the deadlines:

15 MARCH | 14 JUNE | 20 SEPTEMBER



 This activity has received funding from the European Institute of Innovation and Technology (EIT), a body of the European Union, under the Horizon 2020, the EU Framework Programme for Research and Innovation

The EIT RawMaterials “Start-up & SME Booster Program” is one of the EIT RawMaterials funding instruments dedicated to support third parties’ activities, such as business creation by idea holders and growth support by start-ups and SMEs. It provides support to existing start-ups and SMEs to develop innovative products/services that can produce impact in the raw materials sector or benefit our partners. <https://eitrawmaterials.eu/booster-call-2019/>

EIT RawMaterials Key numbers - Business Creation



108

Early start-ups supported

€ 77m

External investment
raised



19

Product services
launched



506

Applications received

Timeline – KAVA 6 – Call for proposals

15 October 2018

Launch of call for proposals

Late October/early November 2018

The proposal registration and submission platform “Seedbook” goes online

Friday 11 January 2019 at 13.00 CEST

Proposal registration deadline

Friday 15 February 2019 at 13.00 CEST

Proposal submission deadline

March 2019

Evaluation

April 2019

Preparation of list of projects for funding by KIC Management Team

April to early May 2019

Approval of list of projects for funding by KIC Executive Board & communication to partners

August 2019

Inclusion of selected projects in Business Plan 2020 to be submitted to EIT

1 January 2020

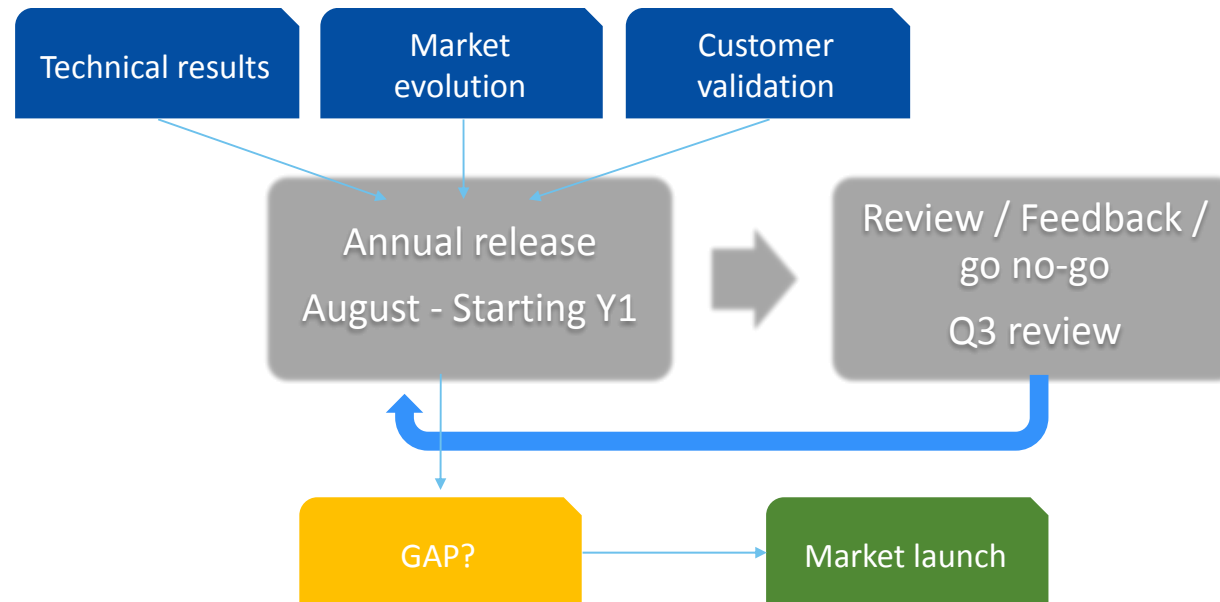
Earliest starting date for approved projects

1 July 2020

Latest starting date for approved projects

Changes to the KAVA process – KAVA 6

Guidance on Upscaling proposals – focus on business potential, feasibility, sustainability. Clear guidelines on go-to-market strategy and project review



EUROPEAN INNOVATION PARTNERSHIP



*Source: EIT Raw Materials Working Group

Join us at Trade Show North booth #6516N

Tuesday, 6 March, 13:00–18:00: EU Exploration and Mining Day: Presentation room #202D

Tuesday, 6 March, 18:30–20:30: EIT RawMaterials Networking Reception: Room #205B, by invite only



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

RAW MATERIALS SUMMIT 2019

20–22 MAY 2019, BERLIN

CONNECTING INNOVATION IN THE RAW MATERIALS SECTOR

Register now on: www.eitrmsummit.com



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The Raw Materials Summit 2019 will include **keynotes by prominent speakers** from the raw materials sector, representatives of the EU Commission, high profile entrepreneurs and startup investors. Besides the keynote speeches, a series of **parallel sessions** will take place.

At the **venture forum**, startups will showcase and pitch their ideas to potential investors
innovative programmes in **education** will be presented

Metallic Mining Hall 2017

Home / News / Metallic Mining Hall 2017

12 December, 2017

También en **MMH 2019**. 15-17 octubre, **Sevilla**



The Metallic Mining Hall (MMH) was held in Sevilla, Spain, on 17-19 October 2017, offering an international forum for the industry related to mineral extraction and processing.

The focus of MMH 2017 has been the sustainability of metals mining with regard to the technology advancements, the environmental protection and efficiency of the processes.



RawMaterials

Connecting matters

RAW MATERIALS SUMMIT 2019

¡Gracias por su atención!

Lorena Jurado

Business Development manager Spain – CoLocation Center Southern Innovation
Hub

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