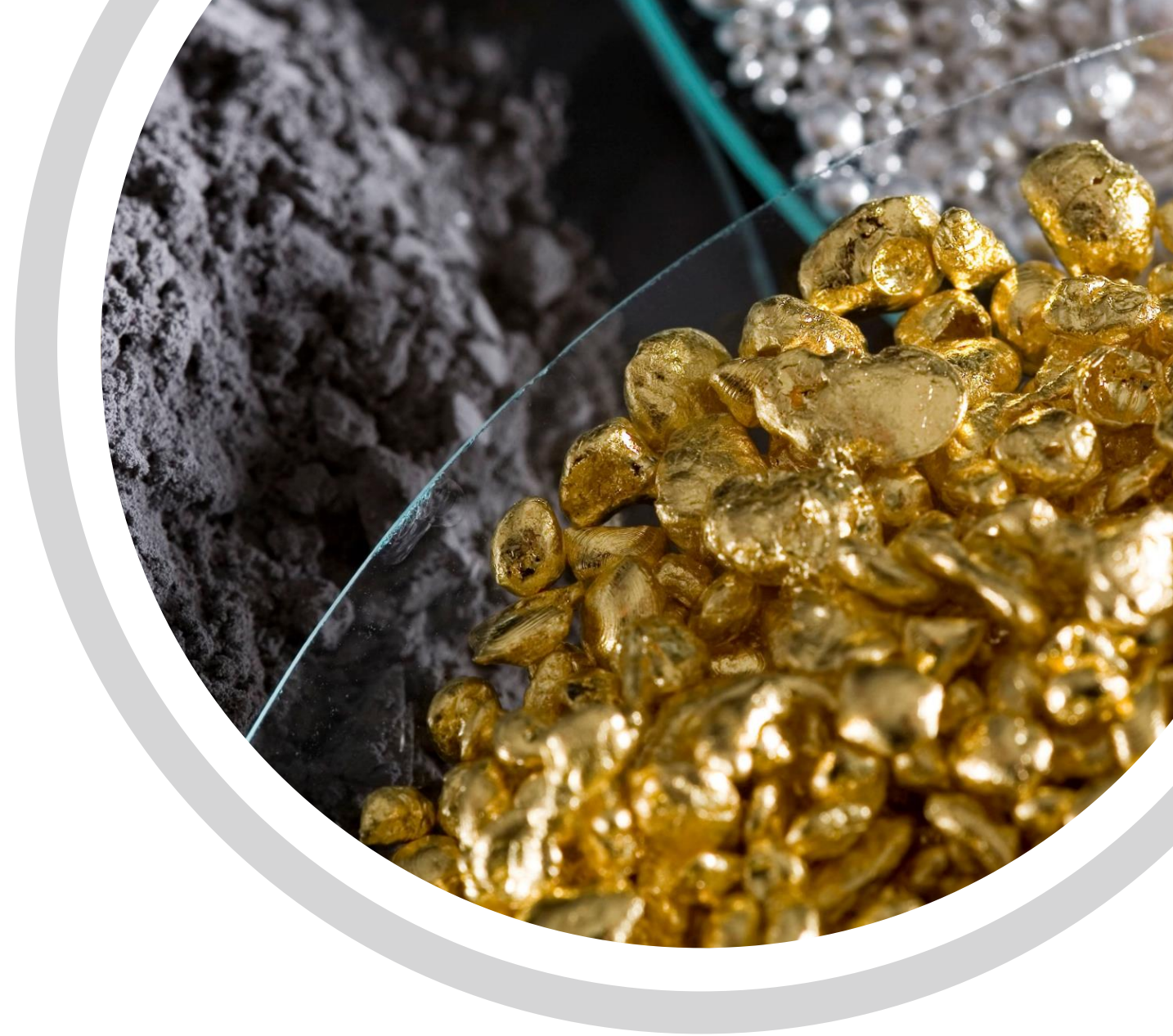


EIT Raw Materials – Connecting Matters

Pier Luigi Franceschini, PhD
General Manager CLC South



What is a EIT-KIC

KIC (acronym of **Knowledge Innovation Community**) is:

- A **thematic innovation community** that develop innovative products and services, foster new business, encourage growth and nurture young entrepreneurial talent
- Characterised by a **high degree of integration**, a long-term perspective, efficient governance, the co-location model and the **entrepreneurial culture**
- Unique partnerships that increase Europe's capacity for innovation by **bringing together leading companies, universities and research labs**
- Driven by a pursuit of **excellence**

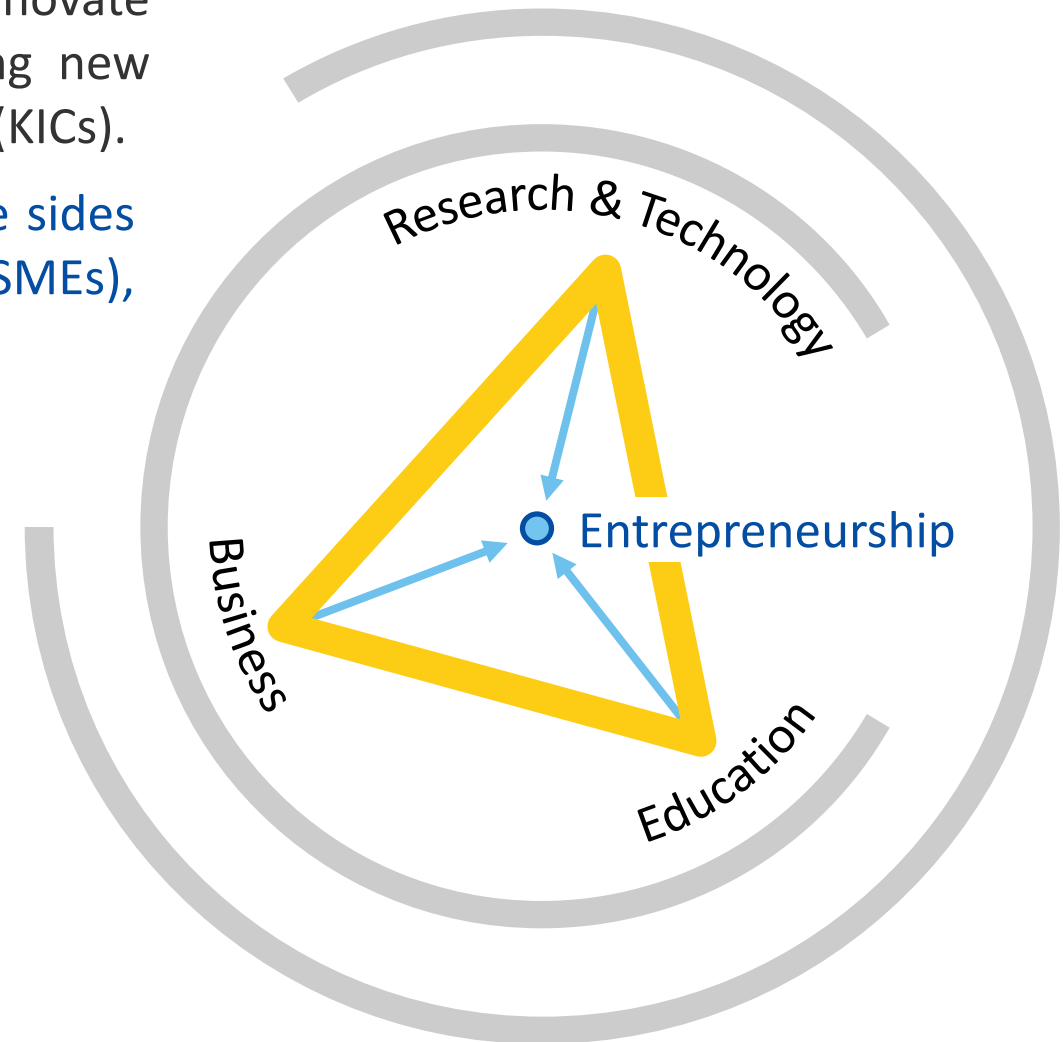
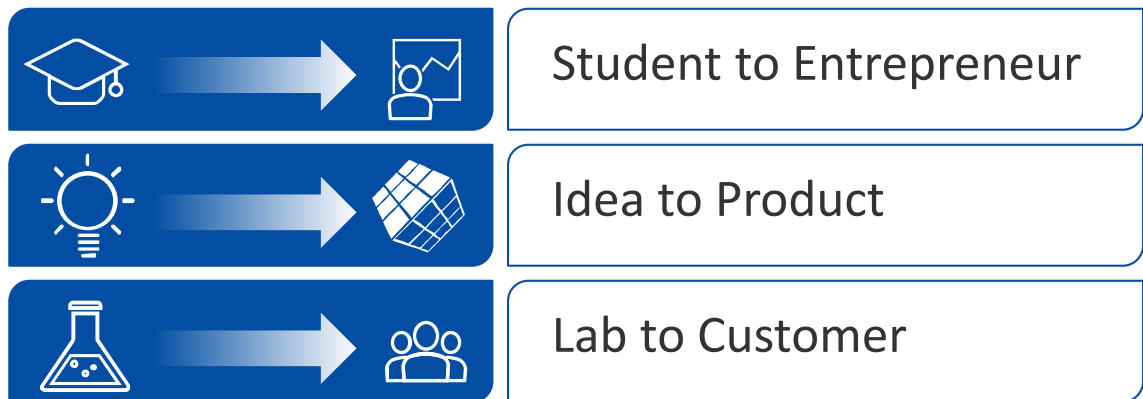


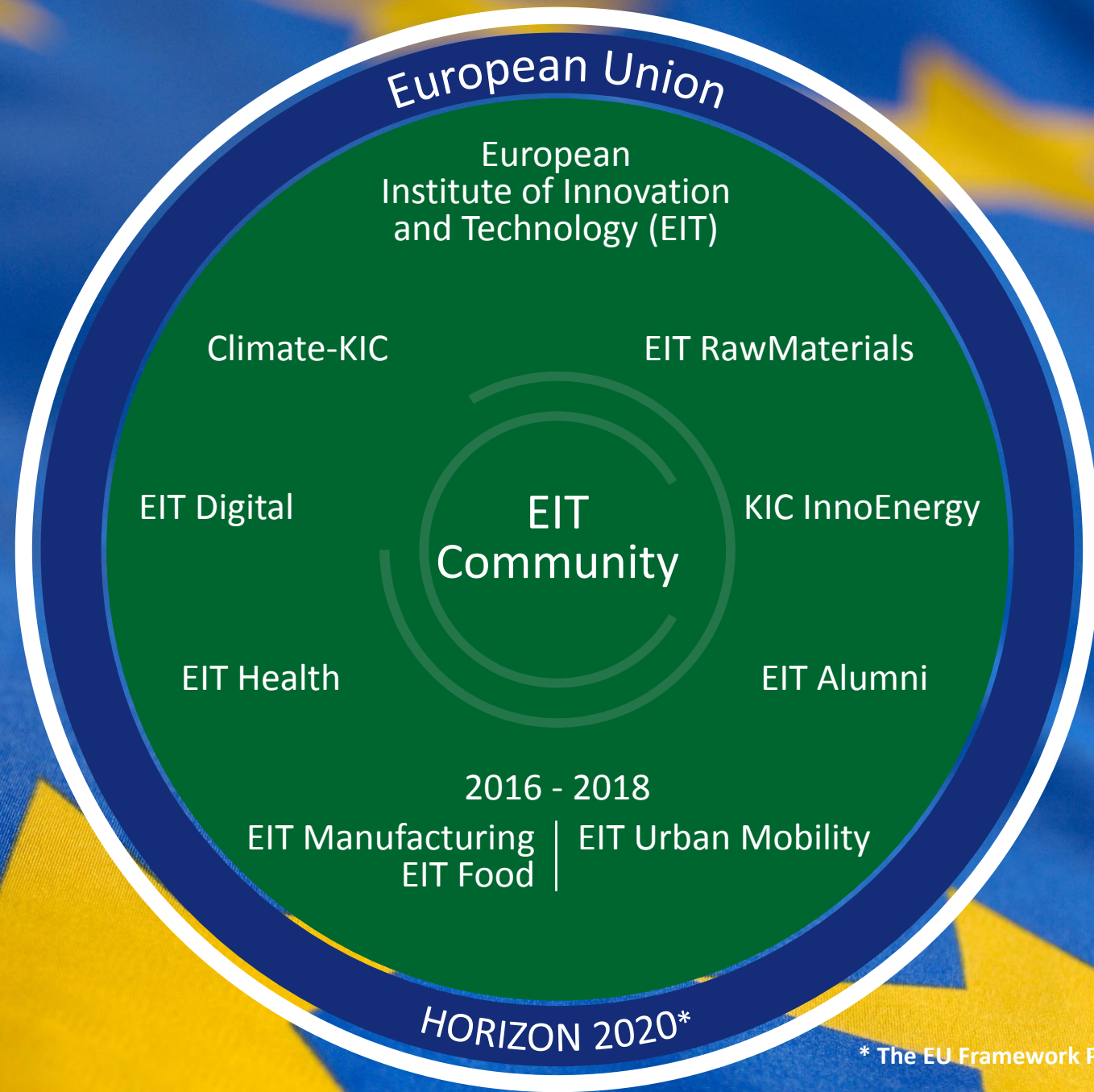
EIT (European Institute of Innovation and Technology)

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

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:





Windturbine
 Iron
 Copper
 Aluminum
 Zinc
 Graphite
 Rare Earth

Structures
 Bricks (clay)
 Concrete (sand, gravel, cement)
 Iron
 Painting (limestone, titanium)
 Electricity (copper, iron)

Airplanes
 Aluminum
 Iron
 Magnesium
 Zinc
 Titanium
 Copper
 Rare Earth

Wires
 Copper
 Iron

Mast
 Iron
 Zinc
 Aluminum
 Copper
 Feldspar
 Quartz

Truck
 Iron
 Aluminum
 Lead
 Copper
 Zinc
 Magnesium
 Quartz

Concrete
 Cement (limestone)
 Sand & gravel
 Iron



Glass
 Feldspar
 Quartz

Electronics
 Copper
 Tantalum
 Rare Earth
 Niobium
 Indium
 Gold
 Aluminum
 Silicium
 Iron

Washing mashine
 Iron
 Aluminum
 Zinc
 Copper

Plumbing
 Copper
 Lead
 Iron
 Limestone

Solar Panels
 Indium
 Gallium
 Aluminum
 Silicium

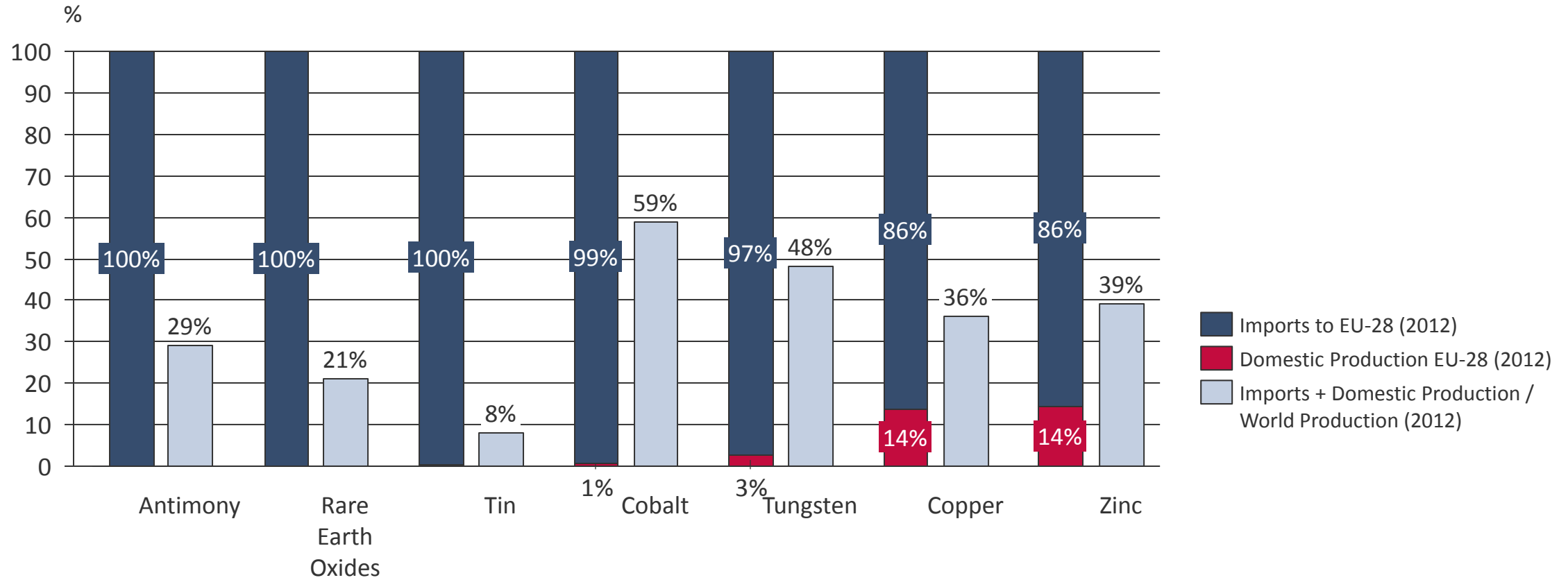
Tracks
 Iron
 Sand & gravel
 Limestone

Fill
 Sand & gravel
 Stone

Rubber
 Dolomite
 Limestone
 Talc
 Graphite

Vehicles
 Iron
 Magnesium
 Aluminum
 Chrome
 Nickel
 Rare Earth
 Lead
 Zinc
 Limestone
 Graphite
 Titanite
 Quartz

Current Status in Europe



What is EIT RawMaterials?

- A company formed by 120 European partners from the raw materials sector
- Financially supported by the European Union (2016 ca 20 Meur, 270 Meur over 5-years)
- Aims to improve innovation in the raw materials value chain through financial support and network activities
- Focus is the whole raw material value chain: From exploration to mining, and from processing to recycling, substitution and eco-design
- Pre-commercial funding, TRL 5-7



TRL 5:

Technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies)

TRL 6:

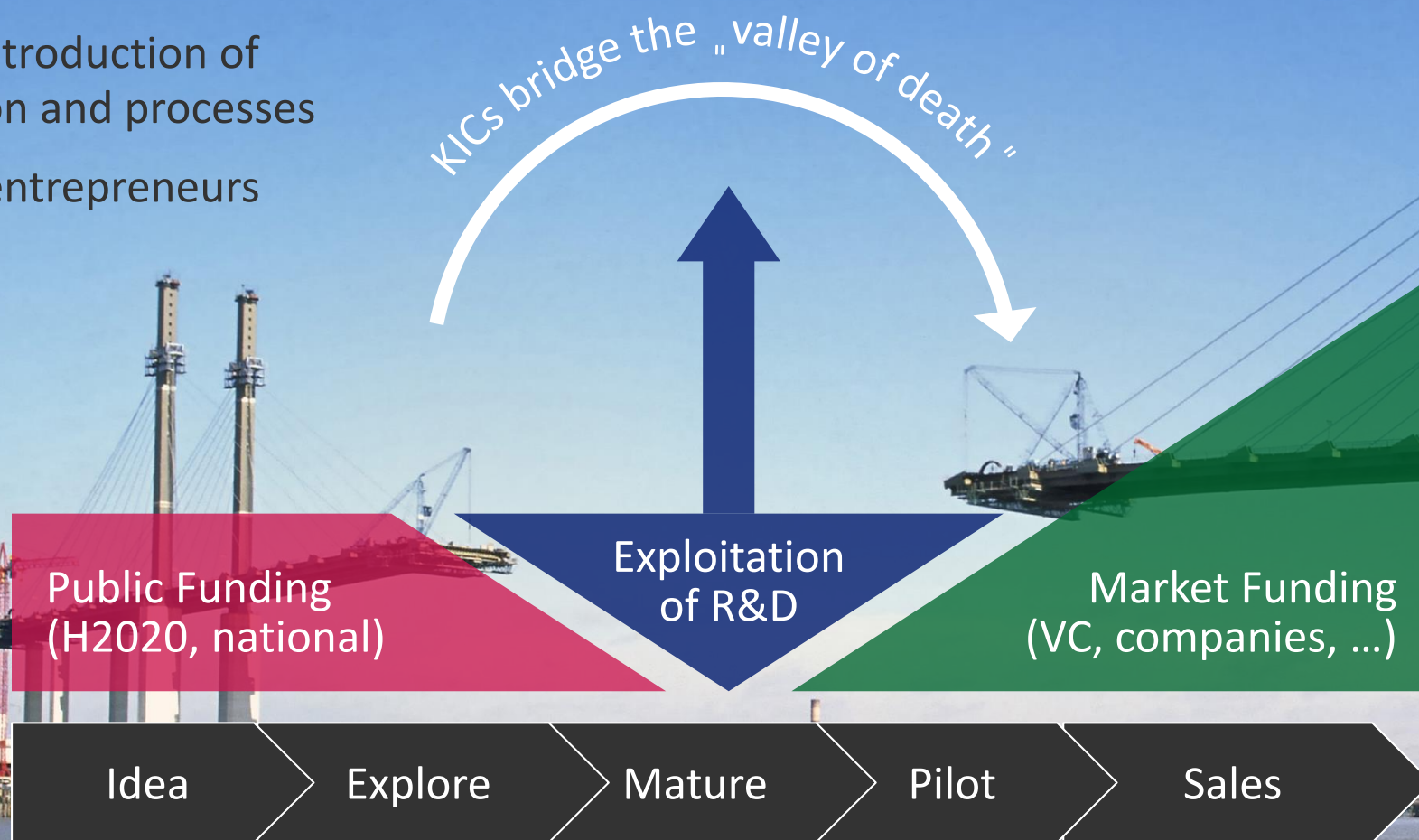
Technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies)

TRL 7:

System prototype demonstration in operational environment

What is the purpose?

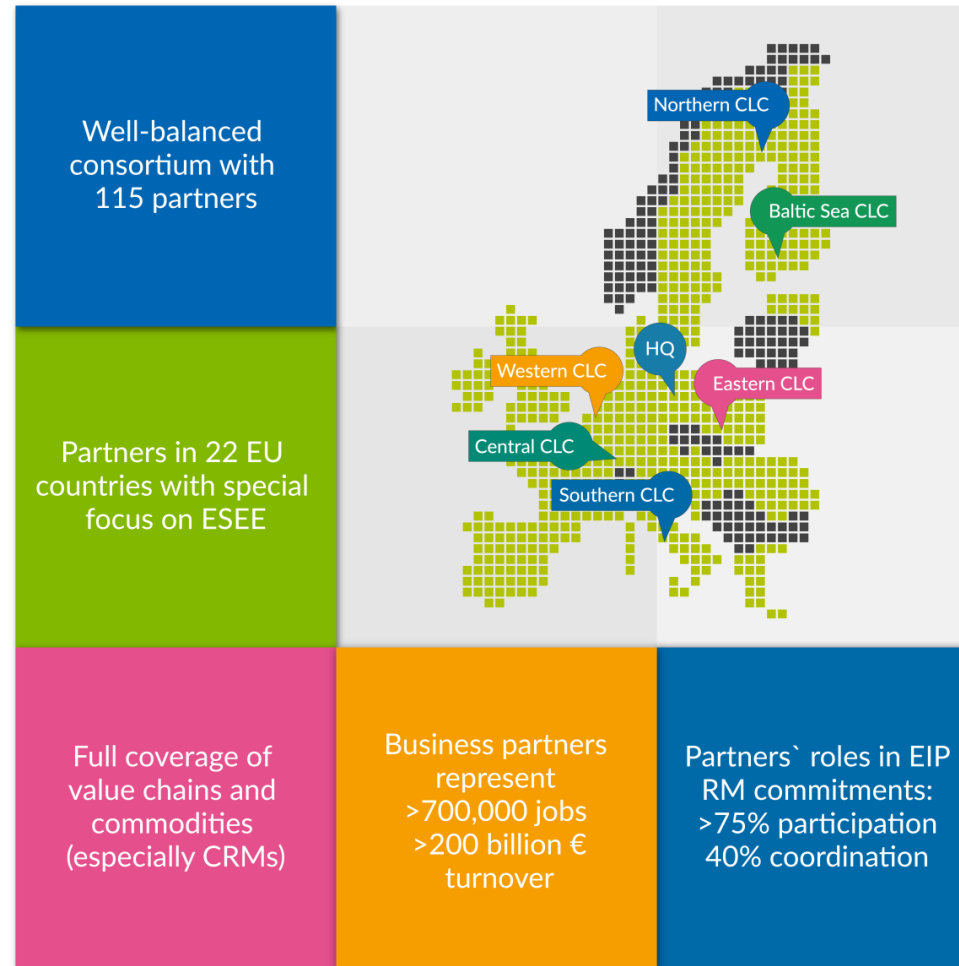
- Bridging the valley of death
- Market introduction of production and processes
- Educate entrepreneurs



Our history

- The Community Responded to the EIT's Call for Knowledge and Innovation Communities launched in February 2014
- Selected on 9 December 2014 by the EIT Governing Board following hearings with the consortia shortlisted by independent assessors
- Selection based on the partnerships excellence and potential pan-European impact in terms of new business creation, entrepreneurship education and societal benefits in the areas of health and raw materials
- From January 2015: start-up grant for the first year of operations and support boosting their innovation capacity and growth: 86 project launched already during 2015
- From January 2016: full operation and implementation of the project portfolio and call launched for new projects

A pan-European network of Excellence

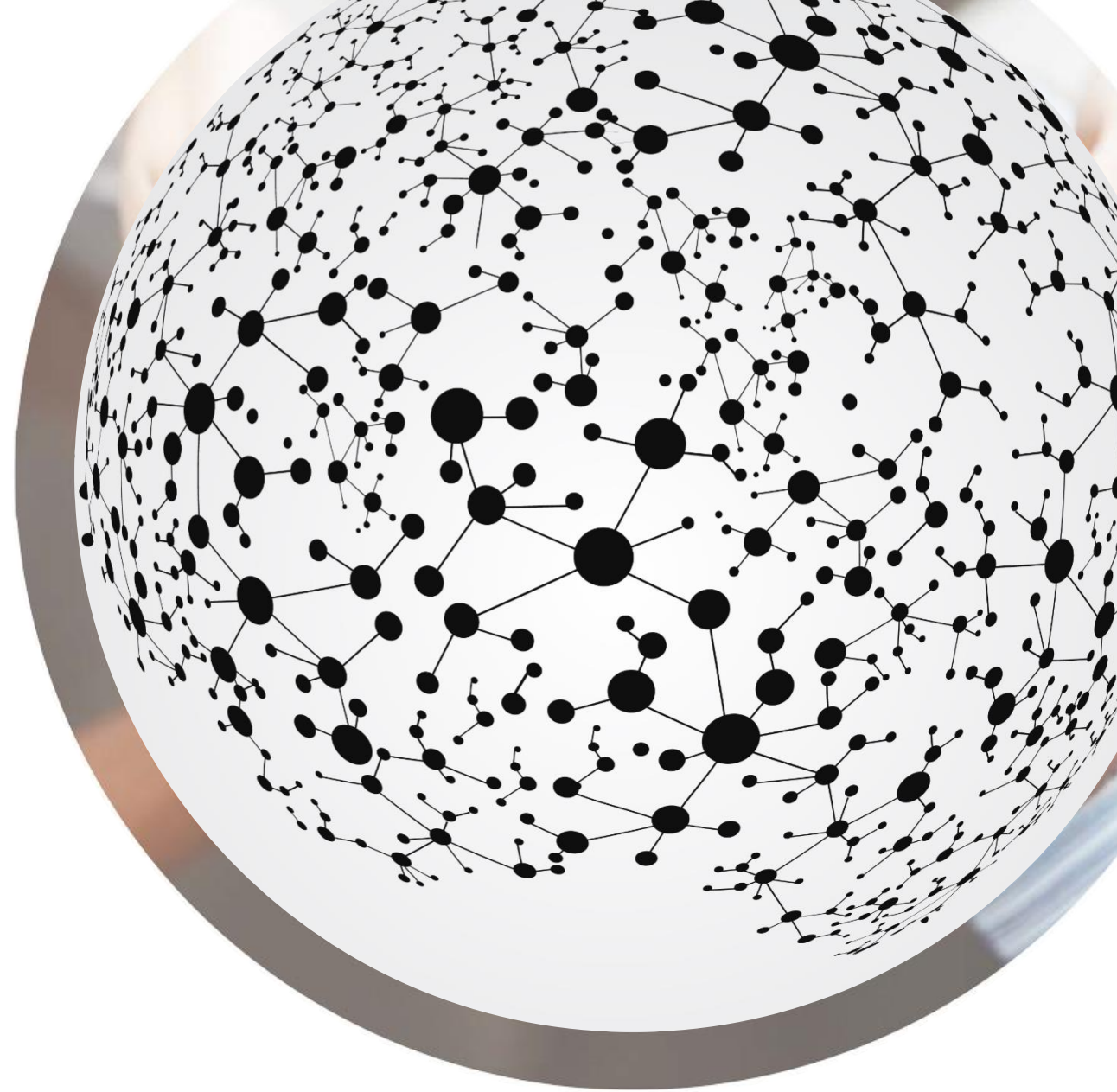


Knowledge and Innovation Themes

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

EIT RawMaterials · GOALS

1. Creating and developing new “game changing” businesses
2. Boosting the existing RM sector through the market introduction of new materials, investment in new production and processing units, system integration and the setting up of new partnerships
3. Achieving a “paradigm shift” in RM education by introducing entrepreneurship, supporting the effective transformation of ideas into businesses



Our partners – our network – our knowledge triangle

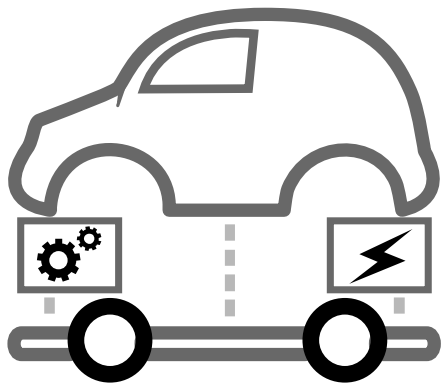


Markets (examples)

- Material intensive
- Providing solutions for the raw materials sector



Example: New Solutions for Mobility



Potential

Design for recycling, based on multi-scale simulations

Graduation of material properties of parts made from micro-alloys

Substitution of critical raw materials in alloys with eco-composites



Solution

Well-educated T-shaped professionals

New up-scaled technologies on the market

New start-ups / spin-offs incubated

EIT Raw Materials Activities

Matchmaking & Networking

- 1. InfoCenter**
Service desk / network / data base for providing knowledge of
(a) Lab & test environment
(b) Research & expertise
(c) Idea & innovation
- 2. Raw MatTERS Matches**
Combining existing technology with new business models for licensing, joint ventures, access for students to find a job and a job to find a student, a platform for EU wide internships, SME needs for skills & expertise
- 3. IDEA Camp**
Event for idea exchange, starting event e.g. for SME Fast Track
- 4. Intrapreneurship Facilitator**
Event for generation & acceleration of intrapreneurship

Validation & Acceleration

- 5. Up-scaling**
An innovation project that is at or near a TRL of demonstration or prototyping and needs a specific additional step to be taken

These projects aim at
(a) Integration of existing technology
(b) De-siloing and value chain co-operation
(c) Bringing technologies to the market
- 6. Network of Infrastructure**
Combining existing facilities to reach critical mass in the areas of
(a) Pilot plants / technical centres
(b) Analytical and modelling infrastructure

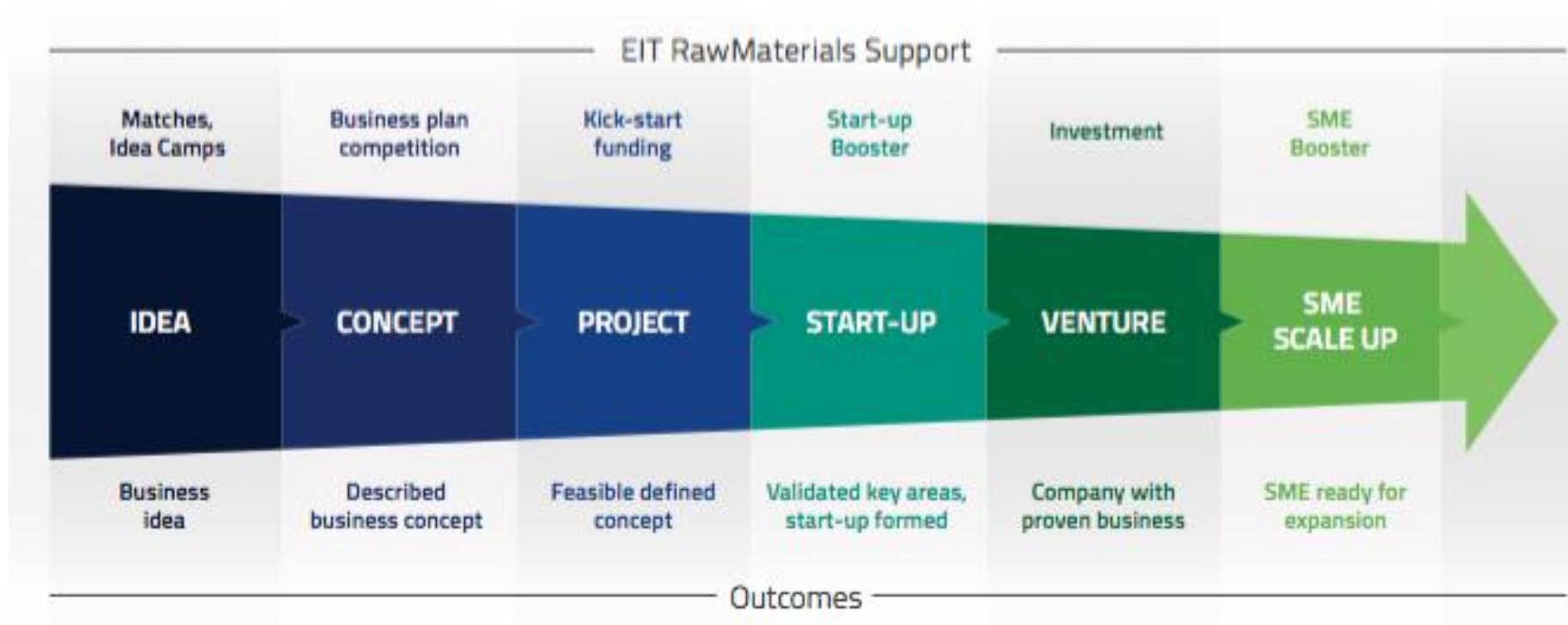
Learning & Outreach

- 7. PhD Education**
Raw MatTERS relevant courses / seminars / workshops
- 8. Master Education**
Modules for Masters Programmes focusing on Raw MatTERS Themes and industry needs
- 9. Lifelong Education**
Lifelong learning approaches address the industry's needs for qualified professionals
- 10. Wider Society Learning**
Aims to raise society's and decision makers' awareness through events and media coverage

Business Creation & Support

- 11. Incubator & Business creation Services**
Providing entrepreneurship services for supporting new start-ups (scouting, business model development, access to funding and technology, coaching, etc.)
- 12. Start-up & innovation booster**
Supporting entrepreneurs in creating their business
- 13. SME Growth booster**
Providing support for SMEs expansion abroad and tailor made benchmarking and matchmaking of local / regional actors
- 14. Kick-start funding**
Using own Raw MatTERS fund for pushing the best projects

Supporting to entrepreneurship



Kick-start Funding, SME/Start-up Booster

- Funding of around 60 keuros for feasibility studies (market study, IPR landscape, design, technical feasibility, etc..)
- Open continuously
- Selection cycle of around 8 weeks
- Process: 5 page concept idea -> invitation to pitching session -> internal evaluation -> funding!
- Deadline - **31st October, visit:**

eitrawmaterials.eu/activities -> Kick starter and SME booster





Business Ideas
Competition in
Raw
Materials

Motivation for the Competition

The philosophy of the Business Ideas Competition (BIC) is to help future potential entrepreneurs in creating technologies and business models with a high growth potential within the raw materials sector and in all related fields.

A BIC is defined by:

- It is organized in phases
- Bests ideas are awarded at the beginning
- Projects are supported from ideas to business models
- Best business models are awarded

Business Ideas Competition in RawMaterials

The BIC RawMaterials topics that should underlie the proposed business ideas are the following:

- Exploration and raw materials resource assessment
- Mining in challenging environments
- Increased resource efficiency in mineral and metallurgical processes
- Recycling and materials 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

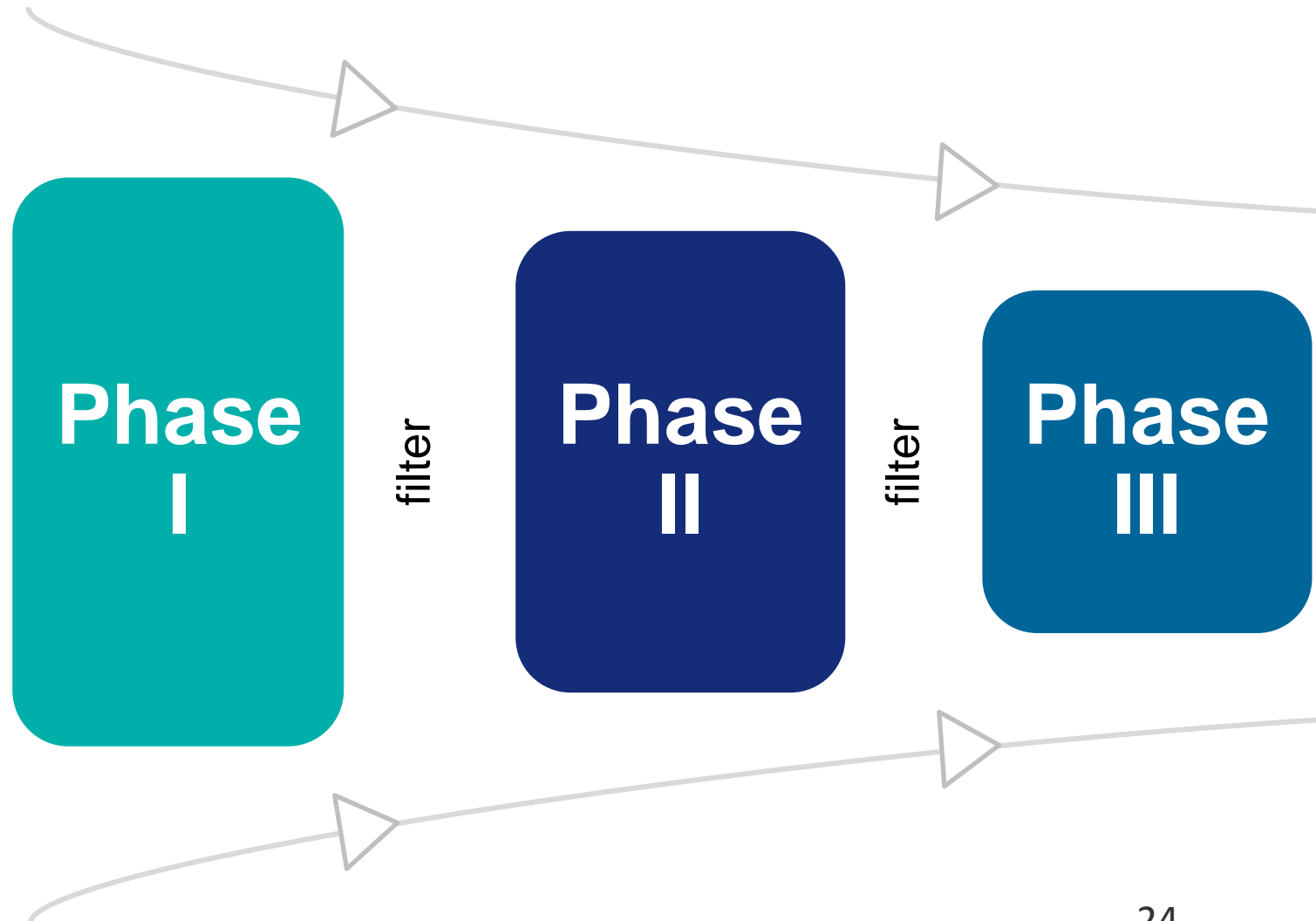
Who can participate?

The competition is open to anyone interested:

- Researchers or research groups from universities and research centers that are working on any of the topics raised by the competition
- Professionals with experience and deep knowledge in the raw materials field
- PhD and top-level students within the sector. (As a recommendation but not mandatory: Ideas coming from students should be accompanied by a faculty member with experience in the field)

How it Works?

Phases of the Competition



Phase I

Phase I

- Dissemination campaign
- Business ideas submission
 - Template in fluidreview
 - Deadline 24 October 2016
- Evaluation by experts
- Business ideas awards
 - The best 10 ideas will be awarded € 1,000
 - In addition, a selection of ideas will move to the next phase

Phase II

Phase II

- Development of ideas into business models
 - Deadline of submission 1 December 2016
- Mentoring by CLCs and ESSOs
- 20 pages document

- Focus on action:
 - Opportunity
 - Elevator pitch
 - Market
 - Action plan
 - Value chain
 - Team
 - Monetization
 - Growth potential
 - Money needed

Phase III

- Evaluation by experts
- Business models awards
 - Ceremony 20 December 2016
 - Prizes:
 - 1st €20,000
 - 2nd €10,000
 - 3rd €5,000
- Promotional activities
- Demo Sessions
- Link with further initiatives of EIT RawMaterials



Phase
III

Benefits for participants

- Cash awards: upon 45,000 euros
- EIT RawMaterials recognition and support. The best projects will benefit from the EIT publicity, resources and contacts
- To be part of the EIT RawMaterial alumni community, which bets for innovation and entrepreneurship
- Access to other initiatives of EIT RawMaterials Entrepreneurship Support Services, Start-up and SME Growth Boosters and Funding Instruments

More information and deadlines

- Deadline for ideas submission: **24 October 2016**
 - Submission of ideas: <https://eitrawmaterials.fluidreview.com/>
- Deadline for business models submission: **1 December 2016**
 - Submission of business models: <https://eitrawmaterials.fluidreview.com/>
- More information and rules: <http://eitrawmaterials.eu/business-plan-competition/>

EIT RawMaterials · VISION

Turning the raw materials
challenge into a strength for
Europe.

Visit us at eitrawmaterials.eu

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