EIT RawMaterials: the world’s largest network for innovation in metals and minerals

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Import dependence for selected raw materials

Source: JRC analysis based on data from report of the Ad hoc Working Group on defining critical raw materials, 2010, 'Critical raw materials for the EU'.

Taken from: Raw Materials Scoreboard 2015, EC
Market drivers

Tesla Model S:
63 kg lithium carbonate
54 kg graphite
22.5 kg Co

Source: Benchmark Mineral Intelligence

THE TESLA OUTLOOK

If the Tesla Motors lithium-ion battery gigafactory reaches its target capacity of 35 GWh by 2020, its demand for the following materials will grow significantly.

- Lithium: 44% INCREASE
- Flake Graphite*: 150% INCREASE
- Spherical Graphite*: 150% INCREASE
- Cobalt: 18% INCREASE
What is EIT RawMaterials?

• A company formed by > 120 European partners

• Financially supported by the European Union

• Aims to support innovation in the raw materials value chain through financial support and network activities

• Focus is the whole raw material value chain

• Focus on innovation (TRL 5-7) and entrepreneurial education

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
Our Mission

To boost the competitiveness, growth and attractiveness of the European raw materials sector via radical innovation, new educational approaches and guided entrepreneurship

Our Vision

To develop raw materials into a major strength for Europe
A pan-European Network of Excellence

• > 120 partners
• 22 countries
• Coverage of full value chain
• Six Co-Location-Centers across Europe
• Headquarter in Berlin, Germany
• > 200 projects running in 2017
Partners della EIT RawMaterials

Industries
Partners della EIT RawMaterials
Research Centres
Partners della EIT RawMaterials

Universities

[Image of various university logos]
Knowledge Innovation Community is:

- A **thematic innovation community** that develops innovative products and services, foster new business, nurture young entrepreneurial talent
- Characterised by **integration**, a long-term perspective, and the **entrepreneurial culture**
- Unique partnerships that increase Europe’s capacity for innovation by **bringing together leading companies, universities and research organisations**
- Driven by a pursuit of **excellence**
EIT RM: partnership in Spain
EIT RM achievements (2017)

ECOSYSTEM
• >120 partners (educational, research, industry)
• >400 organisations involved in the ecosystem

INNOVATION & ENTREPRENEURSHIP
• >65 startups supported
• 43 Upscaling project launched
• 10 improved products/services to be launched on the market

EDUCATION
• 7 EIT-labelled education programs
• 44 new education projects started
• 750 students from 30 schools in 8 countries involved in outreach
EIT RawMaterials 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 of End-of-Life Products
- Substitution of Critical and Toxic Materials in Products and Substitutions for Optimised Performance
- Design of Products and Services for the Circular Economy
EIT RawMaterials - Innovation, Education and Entrepreneurship Activities
UPSCALING INNOVATION PROJECTS

Bringing “X” to the market

Examples

• Integration/application of existing technology in new area
• Introducing new technologies/ processes/optimisation, etc.
• De-siloing value chain

Requirements

• Based on previous project
• Co-funding
• Including educational component!
• Starting at TRL 5
• Ending at > TRL 7
• Product/service/improved process on market max. 3 years after project end
UPSCALING INNOVATION PROJECTS

Example: AMCO – Automated Microscopic Characterization of Ores

- Low investment and maintenance
- Complementary & alternative to expensive traditional SEM analysis.
- Ultra high performance for specific types of ores such as iron oxides.
- Portable, robust, on site operating capability.
- Can operate 24/7.
- Save time and costs in ore processing.
- user-friendly, no highly specialized personnel.
Higher Education, Lifelong Learning, Wider Society Learning

- **Objectives**
  - Integration of entrepreneurship concept in higher education
  - Turn ideas into business opportunities

- **Strategies in education**
  - Train **T-shaped** students through
  - Ensure industrial participation
  - Create attractive career paths
  - Change the **perception in the society** on Raw Materials
"I hear and I forget.
I see and I remember.
I do and I understand."

(Confucius)
EIT CROSS-KIC

BUSINESS IDEA COMPETITION

FOOD - HEALTH - RAW MATERIALS

APPLY UNTIL 31 MARCH 2018

PRIZE UP TO €10,000

WHO

Researchers / idea holders / early stage start-ups not yet fully validated (TRL<4)

WHAT

Ideas for innovative products (services) technologies in the raw materials sector.

WHY

Participate in training bootcamps (fully reimbursed).
Learn how to develop your idea into a business plan and pitch your idea to investors.
Pitch your idea at the final event and win up to €10,000.
Engage with the world’s largest innovation community in the raw materials sector.

VISIT: WWW.LYYTI.FI/P/EITBIC2018_0505
Ideas

Invent

Support
Bootcamp training on business essentials 3 months, up to €15k

Build

Support
Customer validation, Testing, advanced training, coaching 6-9 months, up to €30k grant

Grow

Support
Business development, tailored services… 9 months, up to €45k grant

Markets
START-UP AND SME BOOSTER CALL

Submit your application by 31 March 2018
enrawmaterials.eu-booster-call

UP TO €60.000

JANUARY
- Read the call Terms & Conditions, download the templates at enrawmaterials.eu-booster-call/
- Register at

21 MARCH
- Shortlisting and invitation for pitch
- Prepare your pitch

APRIL
- Online pitching sessions to a reviewer panel
- Results of the selection will be communicated to you shortly and Project Agreement will be sent

MAY
- You can start your project as soon as the PA is signed
- Impeachment is paid after signature of the PA

AUGUST
- Mid-term review, change request in case of deviation
- Online in situ

DECEMBER
- Final Technical & Financial reporting
- Balance earmark after reports received
Open co-creation – Industry Hackathon Process

**TOPIC DEFINITION**
Define goals and problem topics to be solved
0.5 day
EIT RM + Partner

**CALL FOR INTERESTS**
Internal calls/Open calls for teams to send Expression of Interest (or slide with profiles)
2-4 weeks

**SHORTLISTING + FULL PROPOSALS**
Panel of EIT RM + Partner to select best profiles
2-3 weeks

**PITCHING**
After the co-creation workshop, teams can continue off-site work and join for pitching
0.5 day

**CO-CREATION**
3-5 Teams are invited to ideation workshop coached by industry/business experts during 1-2 days

**FURTHER DEVELOPMENT**
The best team(s) is (are) chosen to further collaborate with the Partner
EIT Raw Materials · How to get involved?

- Participate in our thematic centric or regional **Matchmaking & Networking events**
- Consider becoming a **Partner** of EIT RawMaterials:
  - Core partner
  - Associate partner
    - **new upcoming** from 2018 – facilitated access for SMEs and other organizations, work in progress
- Apply for **our competitions**
- Follow us on www, Twitter, LinkedIn