eit RawMaterials
Connecting matters

# European Raw Materials Academy

## powered by Skills Hub

Providing Industry with Skills
for Today and Tomorrow.

Hubs4Circularity – July 2025

Co-funded by the
European Union

# Agenda

1. European Raw Materials Academy. Concept.
2. Advantages for Potential Partners
3. Skills Hub role in the Academy
4. Actionable opportunities now
5. Questions

eit RawMaterials Connecting matters | EUROPEAN RAW MATERIALS ACADEMY POWERED BY SKILLS HUB

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# European Raw Materials Academy powered by Skills Hub

Mission: support the upskilling and reskilling of professionals, by education and training providers in EU Member States, across the entire raw materials sector, including SMEs.

**Project period**: 3 years

**Core KPIs**:

- 100,000+ learners – **up-/re-skilling industry workforce!**
- 50 training programmes delivered (of which 20 newly-developed)
- Network of 60 training providers with 120+ trainers
- Develop a learning platform (Skills Hub) for delivery of Academy
- Financial sustainability.

# 100K+ Learners: Target audience overview

Learners' community building follows three stages:

**1 Stage.** "Individual learners": blue & grey collar workers, professionals outside of the sector, HR communities, students, graduates.

**2 Stage.** "Corporates & SMEs": small-/ medium-/ large scale companies, entrepreneurs, corporate HR and leadership.

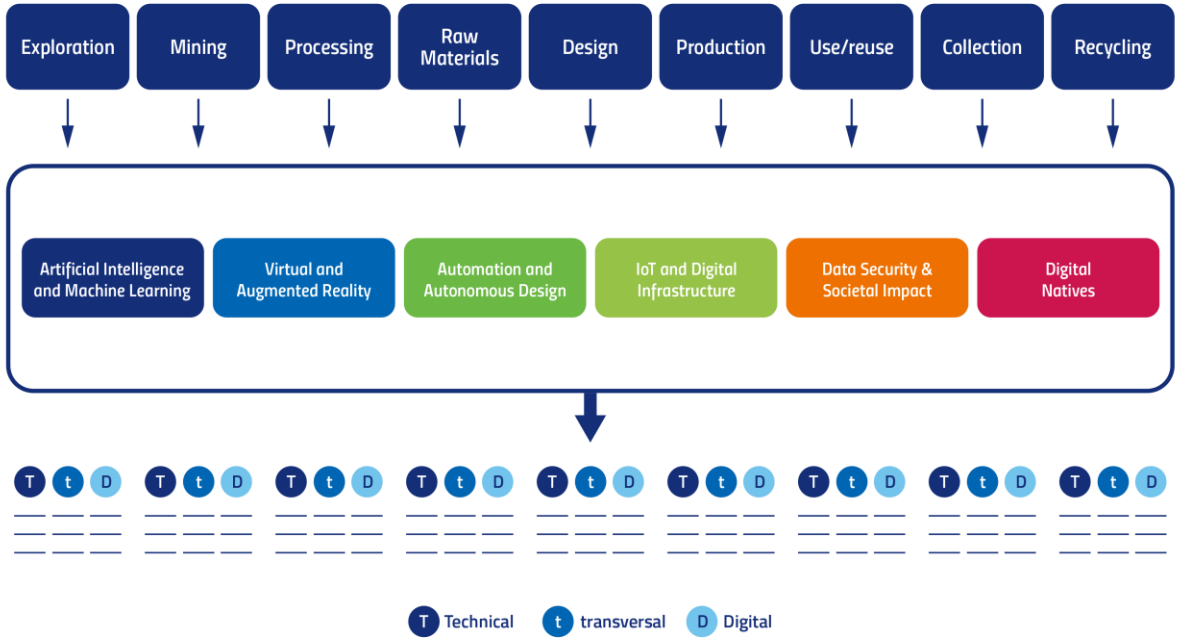
**3 Stage.** "Civil servants and policy makers": European and Regional (Member State Countries) policy officers and experts.

The target of European RM Academy is to RESKILL and UPSKILL Industry workforce!

# WP2: Technical, Digital and Transversal skills

With the needs established, we want to focus on technical and digital skills to support the complete value chain through investment and partnerships!

| | | |
|---|---|---|
| **Digital Natives** | Education - from schools and universities to wider society learning and lifelong learning | 1) Computer science for Geoscientists - (python for geoscience)- geographic information systems and integration of python scripts; geostatistics ARCGIS (geographic information system) ((RAWMATCOP great example)) |
| | Knowledge creation and dissemination | 1) Technological skills for creating and sharing industry-specific knowledge in raw materials value chains |
| **IoT and Digital Infrastructure** | 5G (+) | 1) Smart Manufacturing and 5G in Advanced Materials Processing |
| | Reliable server infrastructure and software solutions | ABAUT - Modelling of traffic in a mine, how to optimise all aspects of resource efficiency (incl. personnel, procurement, machinery, automation, safety, etc.) |
| | Cloud-based solutions and edge computing | 1) Edge Computing for Real-Time Operations in Mining and Materials Processing<br>2) Integrating Cloud and Edge Technologies in Supply Chain Optimization |
| | Unlocking of business2business and customer relations | 1) Using CRM for improving customer attrition and retention strategies with a focus on SMEs |
| | Blockchain | 1) Blockchain for supply chain transparency, validation and product authentication, responsible sourcing<br>2) ECTERRA (Liberia) and MINESPIDER tracking for artisanal small-scale miners; RMR-RADAR |
| | Certification - Trustworthy, secure and seamless tracking of raw materials from source to product | |
| **Data Security & Social Impact** | Secure and reliable data | 1) Ensuring Data Reliability in Critical Raw Materials Supply Chains |
| | Impact of the digital transformation on society | 1) Digital Inclusion in the Raw Materials Sector: Bridging Societal and Technological Gaps |
| | Human-Technology interfaces | 1) The Role of Human-Technology Interfaces in Advanced Materials Processing<br>2)Designing User-Centric Interfaces for Smart Mining and Manufacturing |
| | Ethical practices for collection, processing, and storage of data | 1) Ethical Data Management: Best Practices for Collection, Processing, and Storage |
| | | 1) Eco-friendly extraction |




## Emerging Role Categories:

- **Circular Economy**: Focus on material recovery and sustainable cycles
- **Digital Transformation:** Implementing advanced technologies in traditional operations
- **Sustainability**: Managing environmental impact and compliance

# 50+ professional courses: Diverse approach to learning portfolio

Course portfolio development follows three approaches:

1. **“Repackaging”** existing LLL content developed previously
2. **“Cross-placing”** content of best sector relevant learning providers and institutions
3. **Developing new** content through open calls.

*IT RawMaterials Portfolio of available courses.*

| ics | Short title | Topics | Short |
|---|---|---|---|
| **RCULAR SOCIETIES** | | **III. SUSTAINABLE MATERIALS** | |
| **IRCULARITY** | | **A. Batteries** | |
| ular Economy - Sustainable Materials Management | CEMOOC | Fundamentals of battery electrochemistry | |
| ular skills on the entire value chain | CLOCKS | Introduction to lithium-ion batteries | |
| **IRCULARITY** | | Sustainability in the battery value chain | |
| Cycle Assessment & Life Cycle Costing | EPICENTRE | Battery recycling and ecosystem | BATTV |
| anced Life Cycle Assessment | ALCASIM | Batteries for the Energy Transition | |
| **/ASTE MANAGEMENT** | | From cell analysis to pack integration | |
| te Management and Critical Raw Materials | WM-CRM | Next generation lithium-ion batteries and beyond | |
| aste and Battery Recycling | RecycleMyPh | European Battery Business Club (2 introductory modules an | EBBC |
| :E4Future | | **B. General Raw Materials** | |
| **THERS** | | Materials Criticality | IRTC-t |
| cal Raw Materials | SusCritMOOC | Sustainable Management in the Extractive Industry | SUME |
| per Lifelong Learning Course | SkiComCu-LL | **C. Rare Earth Magnets** | |
| ocredentials for Lifelong Learning in Engineering | MILLE | Introduction to Magnetism: The Challenges of Rare Earth Ma | ExpSki |
| **ESPONSIBLE SOURCING** | | Exploration and Mining of RE Elements | |
| **SG** | | **D. Additive Manufacturing** | |
| Diligence in Mineral Supply Chains | DUDIMOOC | Additive Manufacturing and 3D Printing: Costs Structures an | |
| al License to Operate | PRO-SLO | Additive Manufacturing for Business | |
| **xploration** | | Introduction to Metal Additive Manufacturing (AM) Technolog | |
| c Tomography | METALSF | Introduction to Different Techniques for Metal Additive Manuf | 3D-AC |
| MatCop Introductory course (Copernicus data for raw materials) | | Business Opportunities in Additive Manufacturing | |
| MatCop Advanced course (Copernicus data for raw mate | RawMatCop-A | Intermediate Additive Manufacturing (3D Printing) | |
| **lining** | | Simulation of Additive Manufacturing Process: Fine-Tuning of | |
| g School - Implementing innovations | DIMESEE-2 | Laser Powder Bed Fusion | |
| **rocessing** | | **E. Others** | |
| ing skills and best practices in Pyrometallurgy | SPYRO | Teach like an Entrepreneur | |

# Skills Hub is engine of European Raw Materials Academy

**Talent strategy is now business strategy. Skills Hub is the solution—helping companies and individuals navigate these shifts with data-driven insights, AI-powered talent matching, and targeted upskilling.**

**Europe's first AI-powered workforce transformation platform:**

- Real-time **Skills Intelligence -** identify emerging skills needs to improve workforce strategy optimization
- AI-powered **Talent Matching –** eliminating biases, industry limitations, reducing hiring time and attracting talents outside of sector
- Personalized, certified **Learning Pathways -** aligned with EU standards, actionable and individual' strengths-based
- **Enterprise-ready platform** with predictive analytics and ROI tracking - plan for AI and automation impacts, quantifying financial impact of skills gap in the talent pool, and reducing hiring costs.

**Primary Users:**

- Industry
- Universities & RTOs
- Startups
- Public Sector
- Professionals
- Frontline workers
- Students

# What makes an attractive potential partner...

1. Large EU-wide training bodies or networks with access to extensive number of learners, training providers, and/or trainers
2. Existing portfolios of training programmes that attract large numbers of learners and professionals, scalable and/or online learning is a bonus
3. Training topics that address the pressing needs of materials industry
    1. Particularly future-focused skills, such as digitalization in RMs/AMs topics
4. Credentials/micro-credentials and certified training providers
5. Regional focus to help us achieve breadth of regions and languages
    1. Connection with local public authorities
6. Experience in development of self-paced learning in formats such as SCORM

# What Academy partnership can do for you…

## Your organization:

- Co-brand your portfolio on our Skills Platform, or co-create new content
- Post your courses, trainings, and events
- Promote your brand across our European partner network
- Gain EU visibility and alignment with funding initiatives
- Improve course offering to your trainees by utilizing our available content and credentials

## Your trainees/learners:

- Access to industry-aligned micro-credentials
- Seamless integration of new digital and transversal competencies
- Visibility to employers through the job portal
- Participation in an EU-endorsed ecosystem

# New Content pipeline

**The following calls are active at the moment; more calls to be launched once skills taxonomy is finalized!**

1. Skills4Tomorrow
   - Applications on digital skills grounded relevant to the Raw Materials sector.
   - **Status**: Next deadline 29th August
2. AI/Machine Learning for RawMaterials – call open
   - Applications of AI and ML in the raw materials sector.
   - **Status**: Submission deadline passed. Evaluations to start soon!

3. Upcoming calls to be finalized based on findings from the needs assessment!

# Identifying skills gaps and learning priorities through sector-wide survey

## CREATE CONTENT.

Identifying skills gap priority areas:
3 questions, 2 mins of your time

*Co-develop Academy with us!*
*Propose your ideas and topics.*

Let’s build European Raw Materials Academy together
for Industry to thrive Today and Tomorrow!

Your Questions!