

INTERNATIONAL NETWORK OF RAW MATERIALS TRAINING CENTERS

Project duration: 1 February 2018 – 31 January 2021 (36 months) Project total cost: 1,266,021.25€ EU contribution: 1,266,021.25€ Coordinating entity: Geological Survey of Spain

Kiki Hatzilazaridou, IGME GR MinLand Network workshop and CM, 26-27 November 2018, Brussels

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INTERMIN IN A NUTSHELL (1)

Experts from organisations representing most of the world targeting a potential market of 550.000 earth science related professionals, will cooperate to create:

- A self-sustainable long-term lasting international network of technical and vocational training centres for professionals in the mineral raw materials' sector by considering:
 - > available skills provision, current and future employers' needs;
- > the dynamic balance of demand and educational supply in different world regions.





IN A NUTSHELL (2)

It involves educational and research institutions in the EU and the leading counterparts in third countries, based on specific country expertise in the primary and secondary raw materials sectors

Establish common training programs in the RMs sector

Map skills & knowledge across EU & third countries

> Identify key knowledge gaps and emerging needs

Develop roadmap for improving skills & knowledge



- 1. IGME Spain,
- 2. EuroGeoSurveys,
 - 3. IGME Greece
 - 4. Geological Survey of Hungary MFGI.
 - 5. Geological Survey of Portugal. LNEG
 - 6. Czech Republic GSC.
 - 7. Ukrania Geoinform
 - 8. Polish Association of Mineral Asset Valuators PAMAV
- 9. BRGM,
- 10. ASGMI Association of Iberoamerican Geological Surveys
- 11. La Palma Research Centre LPRC
- 12. Universidad Politécnica de Madrid UPM
- 13. EFG European Federation of Geologists
- 14. Montanuniversitat Leoben MUL
- 15. CCOP GeoScience in East and Southeast Asia
- 16. AGI American Geological Institute
- 17. UQ Universities of Queensland & Western Australia
- 18. Young Earth Scientists Network YES
- 19. SGU



Intermin in Europe

Partners and 3rd partiesEFG and EGS members

O Meetings in Europe



This projec







- Will contribute to the implementation of the Raw Materials Initiative in particular in terms of establishing and maintaining strong and sustainable relationships with the leading training institutions from advanced mining countries;
- Increase the EU competence and expertise in the field of the primary and secondary raw materials;
- Will improve the availability of qualified and skilled workforce leading to higher competitiveness of the EU raw materials industry;
- Will foster international cooperation with industry, government, academia, NGOs and other stakeholders, from key raw materials producing countries and regions.





IMPLEMENTATION

The project activities require:

- contact with people and institutions and
- the collection, analysis, treatment and storage of primary data (data collected by the Consortium involved in INTERMIN) and secondary data (data collected by others and published or publically available)

WP1 includes the development of a mapping methodology (e.g. desk and online research, surveys, interviews with programme leaders) and the definition of a skills list for the raw materials sector

WP1	Worldwide mapping of educational-research programs (Atlases)	MUL	1	12
T1.1	Scoping	IGME	1	5

SKILLS CATALOGUE FOR THE RAW MATERIALS SECTOR

Deliverable 1.1, Version 5.0

Authors: Manuel Regueiro, Luis Jorda (IGME)





SKILLS CATALOGUE FOR THE RAW MATERIALS SECTOR

- The objective of this catalogue is to build a hierarchical logical structure, from the professional domain (where the skills are applied) to the training domain (where the skills are acquired).
- The Skills Catalogue is focused on mining /extractive industries and secondary raw materials (recycling). It is based on the skills needed for the mining sector in a graduate – postgraduate level.

Methodology

- ✓ The mining sector globally was scanned and all the potential jobs domains generally needed in mining operations found, disregarding the specific profession that practices them (usually several professionals develop the same functions);
- ✓ From the job descriptions profiles found, the skills needed to perform such jobs were described in detail.

This system can then be used to locate the subjects from the different training centres or programs This way,

- INTERMIN portal will be able to work both ways, from the job domains, or from the knowledge domain and
- Users will be able to define exactly their needs and training requirements.



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SKILLS CATALOGUE FOR THE RAW MATERIALS SECTOR

- The Skills Catalogue is focused on mining /extractive industries and secondary raw materials;
- It is based on the skills needed for the mining sector in a graduate postgraduate level;
- Later, the training performed by private companies and institutions (such as geological surveys) will be included (if such training is available to any potential student).



Geologists and Mining Engineers, the 2 professions more closely related to non-energy mineral raw materials, will be first evaluated





Skills required

Skill is an ability normally acquired by practise

Competence is the ability to do something successfully or efficiently.

- Raw materials industries are facing skills shortages in many countries;
- Relevant studies ranked skills shortages as the overall number 1 risk facing the global mining industry;
- The lack of a skilled workforce is mainly driven by three factors: technological advances, cyclicity and demographic;
- Today's mining industry relies on highly skilled workers with a diverse skill set;
- Mining companies look for graduates and technical specialists with not only mining knowledge but also the ability to use sophisticated technology and computing techniques, operating in challenging environments;
- These changes, driven by technology, are having a powerful effect on the structure and content of miningrelated technical and vocational training;





Social aspect in mining industry, licensing and public awareness

Regarding new subjects and teaching changes, some important milestones at the end of the 20th century include: Introduction of the environmental concepts; Computing, new technologies and the internet; Advances in robotics and automation; Social aspect in mining industry and public awareness.

Many mining projects in Europe are being blocked by social disconformity. The social acceptance is the Achilles heel of the extractive industry in Europe and other countries worldwide, thus the <u>social aspect</u> <u>in mining and industry has become a very relevant emerging skill;</u>

Geologist and engineers many times are the first contact with the community; Researchers receive strong focus on technical excellence but very little in "soft" skills; Need to improve our social and communication skills and multidisciplinary teams.







There is a new kind of skilled professional in the Raw Materials Sector named "T shaped"



"T-shaped professionals are characterized by their deep disciplinary knowledge in at least one substance area and capability to cross the boundaries between disciplines".,

The skills catalogue developed in INTERMIN project indicates that employers are placing increasing importance on skills that go beyond a single discipline





On going activity: Online survey

One significant part of this project is to make an inventory of all the post-graduate training programmes in the field of raw-materials engineering that are available (not just in the EU but worldwide);

To facilitate this task an on line survey was developed;

<u>Based on this survey</u> and a thorough assessment of the future technological development and prospective shortages of specific skills <u>possible gaps will be</u> <u>identified.</u>



http://intermin.limequery.com/324595?lang=en

Contribute by filling in the survey

http://interminproject.org/about/ http://interminproject.org/work-packages/

