

WP01 - Status and progress

Montanuniversitaet Leoben (MUL)

INTERMIN 1-year meeting, Madrid, 30° - 31° January 2019

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Task 1.1 Scoping (IGME, UPM, EFG, MUL, CCOP, AGI, YES)

- Define the functional requirements that are necessary to build up the database of the existing training
- Definition of a coherent system of skills → production of a skills catalogue (D1.1)

Task 1.2 Mapping (MUL, all participants and EGS third parties)

- Identification and collection of information on existing technical and vocational training courses
- Desk research, online research, surveys and interviews with program leaders
- Comprehensive collection of all existing training programs, including a judgement on the strengths and weaknesses of each one, thus setting up a knowledge base,
- Populate a searchable wiki database interlinked with a geographic information system



Framework - Deliverables

Duration: M1-M12

Task1.1 Scoping (M1-M5)

Task1.2 Mapping (M1-M12)

Deliverable	Title	Lead	Type	Level	Date
D1.1	Skills catalogue for the raw materials sector	IGME	Report	Public	M5
D1.2	Database process manual	MUL	Report	Public	M12
D1.3	Global repository of training programs and networks on raw materials in the EU and advanced mining countries	MUL	Website, patent fillings, etc.	Public	M12

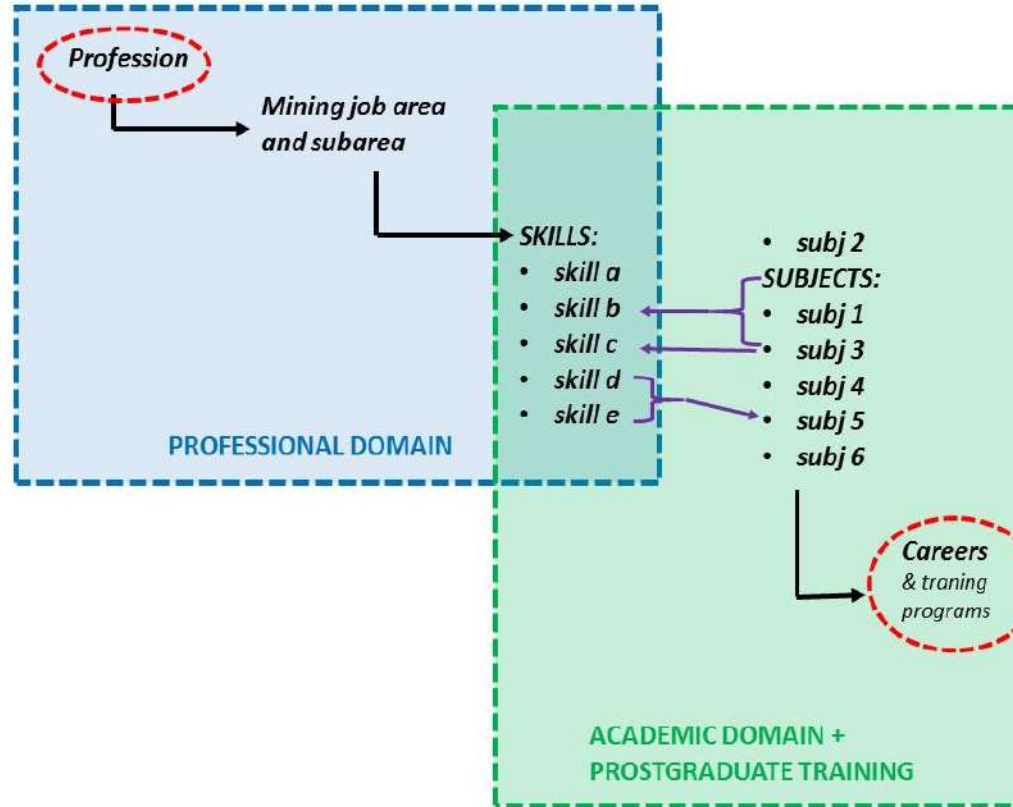


INTERMIN

Workload

Nr	Who	Months/Effort
1	IGME	1.5
2	EGS	0.5
	GeoInform	1.5
	CGS	1.5
	MBFSZ	1.5
	IGME GR	1.5
3	BRGM	0.5
4	ASGMI	2
5	LPRC	0.5
6	UPM	1
7	EFG	1.5
8	MUL	9
9	CCOP	2
10	AGI	1
11	UQ	1
12	PGI-NRI	0.4
13	YES Network	1
14	SGU	0.3
Total		28.2





Skills catalogue

questionnaire

Reply template dropdown menu

skills	knowledge
Surface and underground mining	Mining methods
	Planning and design
Mineral processing	Ground control and rock mechanics
	Health and safety
	Environmental issues
	ventilation
Etc...	

	Fixed subjects related to knowledge	Included in syllabus
Ground control and rock mechanics	Rock mechanics	✓
	Soil mechanics	✓
	geotechnics	✗
	monitoring	✗
	Labo testing	✓

dropdown



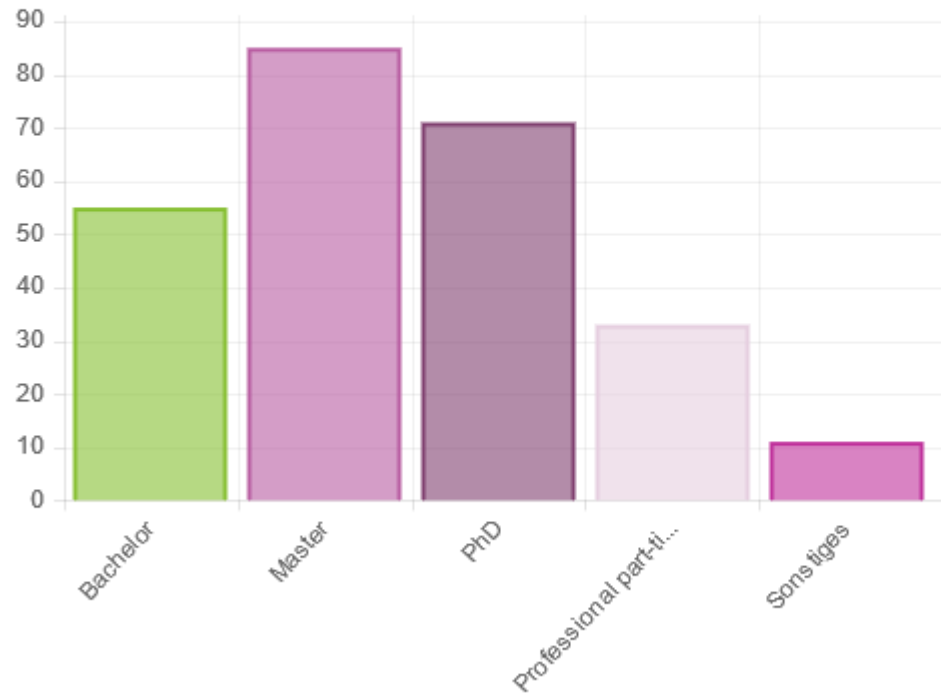


MINING JOB AREA	MINING JOB SUB - AREA	SKILLS /KNOWLEDGE OUTCOMES
1.- Business Management	1.1. Mining in a global environment	1.1.1. Analyses the market to predict future demand/supply trends. 1.1.2. Understands mine economics and the minerals market and their influence on mining systems 1.1.3. Understands economics and mining geology 1.1.4. Understands the impacts of commodity price fluctuations 1.1.5. Understands the trade-off between risk and value in mining decisions 1.1.6. Facilitates the implementation of environmental, engineering, mining and social best practices
	1.2. Legal and regulatory requirements	1.2.1. Understands and applies the 'license to operate' philosophy' 1.2.2. Understands and adheres to mining and related legislation and regulations 1.2.3. Understands and adheres to other relevant legislation and regulations ¹
	1.3. Organisational structures	1.3.1. Understands the organisational, hierarchy and information flows for typical mining businesses and operations
	1.4. Financial operations	1.4.1. Understands the basics of investment banking and its relationship to the resources sector 1.4.2. Understands business development principles applicable to the mining industry 1.4.3. Interrogates and interprets financial statements 1.4.4. Creates comprehensive financial models 1.4.5. Uses financial models and Analyses financial data 1.4.6. Forecasts cash flows
	1.5. Production costs	1.5.1. Identifies the significant cost areas related to the operation 1.5.2. Delivers cost/benefit analyses 1.5.3. Generates CAPEX and OPEX from first principles 1.5.4. Performs trade-off studies by analysing production equipment economics 1.5.5. Identifies the impact their role has on the value chain of the business
		1.6.1. Completes first-principles cost modelling

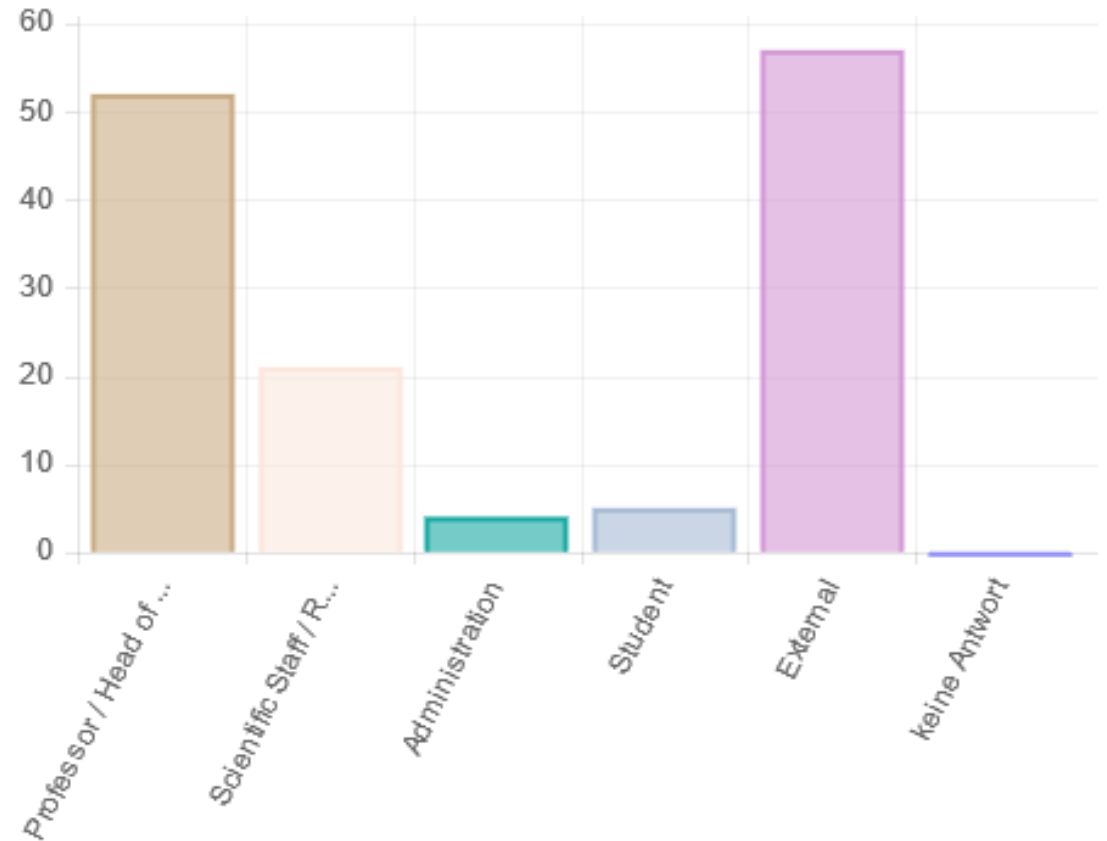
Results – some statistics

Status Jan 22nd 2019

Highest achievable degree & the name of the study programme(s) representing within your institution. Devide multiple programmes (Raw Materials Engineering, Applied Geosciences, ...)



Your role at the Institution



Results – some statistics

Status Jan 22nd 2019


- General: 310 starters,
171 partly completed,
139 fully completed

1st page			Zusammenfassung für Personaldaten [First Name]	
About Yourself				
Antwort		Anzahl	Prozent	
	Answer	172	55.48%	
	No Answer	31	10.00%	
	Not finished	107	34.52%	



Results – some statistics

Status Jan 22nd 2019

2nd page fassung für TeachingArea 


Please choose appropriate teaching areas representing your study programme(s)

Antwort	Anzahl	Prozent
Business Management (SQ001)	40	12.90%
GeologyExplorationResources and reserves (SQ002)	106	34.19%
Mining geomechanics and technical mine design (SQ003)	69	22.26%
Mining methods (SQ004)	80	25.81%
Mining equipment and systems (SQ005)	52	16.77%
Mining services (SQ006)	50	16.13%
Mineral production and processing (SQ007)	65	20.97%
Generic, health and social tasks (SQ008)	51	16.45%
Social Performance (SQ009)	27	11.94%
Not finished	150	48.39%



Results – some statistics

Status Jan 22nd 2019

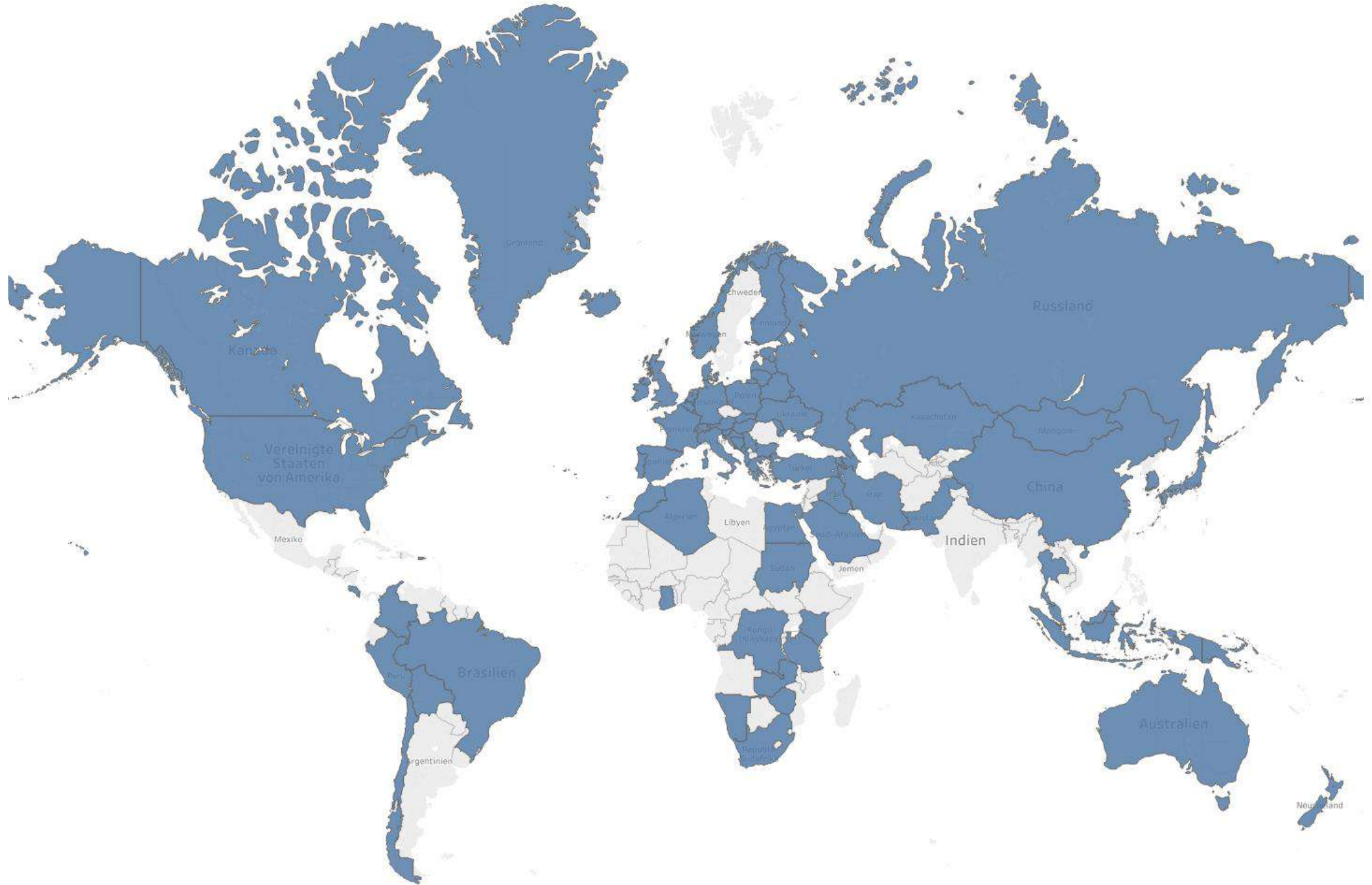
3rd page Zusammenfassung für Checkbox 

Do you want to receive future informations?

Antwort	Anzahl	Prozent
Ja (Y)	58	18.71%
Nein (N)	35	11.29%
No Answer	49	15.81%
Not finished	168	54.19%



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Programme

Country	Name of the Institution	Programme				
		Bachelor	Master	Other	PhD	Professi.
Albania	Polytechnic University of Tirana		■		■	
Algeria	National High School of Mines and Metallurgy - Annaba		■			
Armenia	Yerevan State University		■			
Australia	Curtin University - Western Australian School of Mines	■		■	■	■
	Economic Geology Research Centre, James Cook University	■				■
	Federation University Australia	■		■	■	
	IES 9-019 INSUTEC			■		
	The University of Queensland	■	■		■	■
	Universidad Nacional de Jujui	■				
	University of New South Wales		■			
	University of New South Wales (UNSW Sydney)	■	■	■	■	■
	University of Queensland		■			



Teaching Language	Country	Teaching Language 1-3		
		1	2	3
Arabic	Albania	■		
	Algeria		■	
	Iran		■	■
	Iraq	■	■	
	Morocco		■	
Saudi Arabia	Saudi Arabia	■		
	Sudan	■		
Armenian	Armenia			
Azerbaijani	Azerbaijan	■		
Belarusian	Belarus	■		
Bosnian	Bosnia and Herzeg.	■		
Bulgarian	Bulgaria	■		
Catalan	Comoros	■		
	Spain	■		
Chinese	China	■		
Croatian	Croatia	■		
Danish	Greenland		■	
Dutch	Netherlands		■	
English	Armenia			■
	Australia	■		
	Austria		■	
	Azerbaijan			■
	Bosnia and Herzeg.		■	
	Brazil			■
	Bulgaria		■	
	Canada	■		
	Chile		■	
	China		■	
	Colombia		■	
	Comoros		■	
	Croatia		■	
	Democratic Republ.		■	
	Denmark		■	

Teaching Areas

Country	Name of the Institution	Teaching Areas									
		Teaching..	Teaching..	Teaching..	Teaching..	Teaching..	Teaching..	Teaching..	Teaching..	Teaching..	Teaching..
Albania	Polytechnic University of		■								
Algeria	National High School of M		■	■	■	■					
Armenia	Yerevan State University		■								
Australia	Curtin University - Wester	■	■	■	■	■	■	■	■	■	
	Economic Geology Resear..	■	■	■	■	■	■	■	■	■	
	Federation University Aus	■	■	■	■	■	■	■	■	■	
	IES 9-019 INSUTEC										
	The University of Queensl..		■	■	■	■	■	■	■	■	
	Universidad Nacional de J..		■	■	■	■	■	■	■	■	
	University of New South ..		■	■	■	■	■	■	■	■	
	University of New South ..	■	■	■	■	■	■	■	■	■	
	University of Queensland		■	■	■	■	■	■	■	■	
	WA School of Mines, Curti..		■	■	■	■	■	■	■	■	
Austria	Chair of Subsurface Engin..	■	■	■	■	■	■	■	■	■	
	Montanuniversitaet Leob..	■	■	■	■	■	■	■	■	■	
	University of Leoben	■	■	■	■	■	■	■	■	■	
Azerbaijan	Azerbaijan State Oil and I..		■	■	■	■	■	■	■	■	
Belarus	Belarusian National Tech..	■	■	■	■	■	■	■	■	■	
Belgium	Faculté Polytechnique de ..	■	■	■	■	■	■	■	■	■	
Bolivia	Universidad Automa Tom..										
	Universidad Técnica de Or..		■								
Bosnia and Her..	Faculty of Mining, Geolog..										
Brazil	Federal University of Rio ..	■									
Bulgaria	University of Mining and ..		■								
	University of Mining and ..		■								
Canada	Rocscience (Toronto)			■							
Chile	PONTIFICIA UNIVERSIDA..	■									
	Universidad Católica del ..	■									
	Universidad de Santiago d..	■									
	Universidad Técnica Fedo..	■									
	University of Chile	■									

Sub Areas

Country	Name of th..	Sub Areas					
		1.1 Mini..	1.2 Prod..	1.3 Orga..	1.4 Fin..	1.5 Man..	1.6 Res..
Albania	Polytechnic..						
Algeria	National Hi..						
Armenia	Yerevan St..						
Australia	Curtin Univ..	■					
	Economic G..						
	Federatio..						
	IES 9-019 I..						
	Univ. of Queensland						
	Universidad Nacional de J..						
	University of New South ..						
	University of New South ..	■	■	■	■	■	■
	University of Queensland						
	WA School of Mines, Curti..						
Austria	Chair of Sub..	■	■	■	■	■	■
	Montanuni..	■	■	■	■	■	■
	University ..	■	■	■	■	■	■
Azerbaijan	Azerbaijan ..						
Belarusian	Belarusian ..						
Belgium	Faculté Pol..	■	■	■	■	■	■
Bolivia	Universida..						
	Universida..						
	Universida..						
Bosnia and ..	Faculty of ..						
Brazil	Federal Uni..	■					
Bulgaria	University ..						
	University ..						
Canada	Rocscience ..						
Chile	PONTIFICIA..						
	Universida..						
	Universida..						
	Universida..						
	Universida..						
	University ..						
China	China Unive..						

Skills

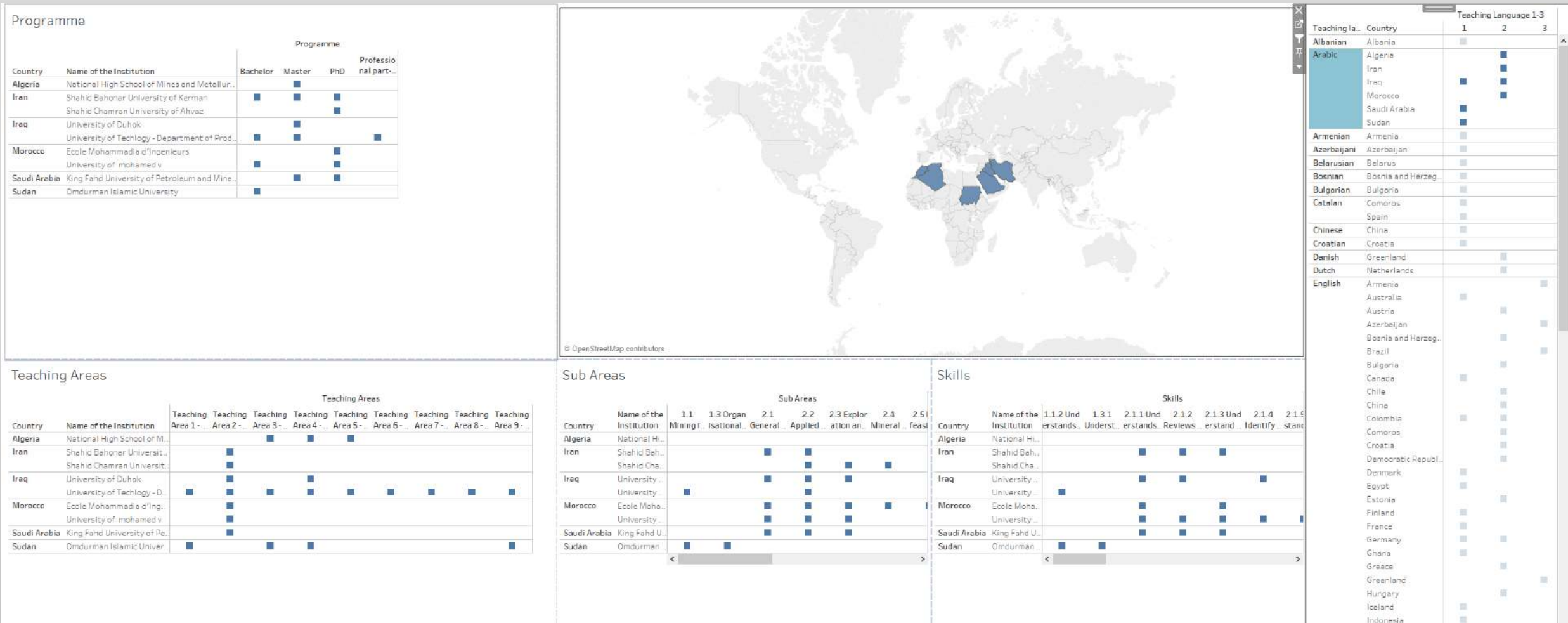
Country	Name of th..	Skills						
		1.1.1 An..	1.1.2 Un..	1.1.3 Un..	1.1.4 Fac..	1.1.5 Un..	1.2.1 Co..	1.2.2 Co..
Albania	Polytechnic..							
Algeria	National Hi..							
Armenia	Yerevan St..							
Australia	Curtin Univ..							
	Economic G..							
	Federatio..							
	IES 9-019 I..							
	Univ. of Queensland							
	Universidad Nacional de J..							
	University of New South ..	■	■	■	■	■	■	■
	University of New South ..							
	University ..							
	WA School ..							
Austria	Chair of Sub..							
	Montanuni..		■	■	■	■		
	University ..							
Azerbaijan	Azerbaijan ..							
Belarusian	Belarusian ..							
Belgium	Faculté Pol..	■	■	■	■	■	■	■
Bolivia	Universida..							
	Universida..							
Bosnia and ..	Faculty of ..							
Brazil	Federal Uni..		■	■	■	■	■	■
Bulgaria	University ..							
	University ..							
Canada	Rocscience ..							
Chile	PONTIFICIA..							
	Universida..							
	Universida..							
	Universida..		■	■				
	University ..							
China	China Unive..							

<http://interminproject.org/preliminary-survey-results/>

Latest responses

Name of the Institution

- Azerbaijan State Oil and I. ■
- Nazerbayev University, Sc. ■
- Polytechnic University of .. ■
- Silesian University of Tec.. ■
- University of Valencia ■
- Yerevan State University ■



- D1.1: Skills Catalogue
- D1.2: Database process manual **1 month delay**
- D1.3: Repository of training programmes **1 month delay**
 - Excel table (database), „Tableau“ evaluation, Interactive map on Intermin-homepage



- Content of Database: Increase number of filings
- Long-Term handling of database
- Repetition and improvement of survey

