

# RAW MATERIALS STAKEHOLDER NETWORK





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#### Deliverable D.2.1

#### Composition and Structure of the Stakeholder Network and Advisory Board

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Network and Advisory Board

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Approved by: Bas de Leeuw (WRFA)

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#### **Purpose**

This document presents the composition and structure of the Stakeholder Network and Advisory Board of the FORAM project. The aim was to identify target stakeholders such as international agencies, regulators and policy makers, research centers, universities, training centers, SMEs, large companies and not for profit organizations active in social and economic development, environmental protection and potential end-users for a potential World Forum on Raw Materials, such as investors in technology and market makers. The document is intended for both internal readers and the public and is under the responsibility of Work Package 2 (WP2).

Amendments, comments and suggestions should be sent to the WP2 leader: Jelena Vidovic, Jelena.vidovic@eurogeosurveys.org.





#### 1. Introduction

The project Towards a World Forum on Raw Materials (FORAM) is developing and setting up an EU-based platform of international experts and stakeholders that advances the idea of a World Forum on Raw Materials and enhances the international cooperation on raw material policies and investments.

In the Strategic Implementation Plan (SIP) for the European Innovation Partnership (EIP) on Raw Materials, recommended action areas include "Global Raw Materials Governance and Dialogues" within the international cooperation pillar. The SIP recommendations aim at improving raw materials supply conditions for the EU economy and the world market through an improved dialogue with trading partners and key stakeholders.

Over the past 20 years the global use of mineral resources has drastically increased, and supply chains have become ever more complex. This poses questions regarding security of supply, price, environmental, social and political risks for the European and global economies. It is widely felt that improved international resource transparency and governance would be beneficial for all countries (industries and governments), since it would lead to stability, predictability, resource-efficiency and hence a better foundation for competitiveness on a sustainable basis. Establishing a neutral international platform on raw materials, comparable to the International Energy Agency (IEA), has been recommended by experts for years.

A number of existing global initiatives and organizations have been contributing to knowledge, information transfer and common approaches and FORAM project will take stock of all these and other ongoing European and global initiatives that aim at better transparency, governance and improved dialogue and cooperation in this field.

Key aspects of advancing the idea of a World Forum on Raw Materials include assessing its focus (information gathering, scientific platform, policy dialogue, multi-stakeholder awareness raising and capacity building, or a mix of these) and its format (institutionalized or network). This assessment is carried out in close dialogue and partnership with existing networks, which is expected to yield significant gains in efficiency and effectiveness. By closely working with the relevant stakeholders from industry, European and international organizations, governments, academia and civil society, this project is consolidating the efforts towards a more joint and coherent approach towards raw materials policies and investments worldwide. Synergies with relevant EU Member States initiatives are explored and fostered. The project seeks to engage the participation of G20 Member countries and other countries active in the mining and other raw materials sectors, so that experiences are shared and understanding of all aspects of trade in raw materials is increased. The project aims to be the largest collaborative effort for raw materials strategy cooperation on a global level so far.

The FORAM consortium is composed of well established and widly recognized institutions and associations from the EU (EGS, EFG), international networks (WRFA, UNU), expert institutes that





are highly respected for their work for and with industry (UL, MatSearch, TUC, UNI KASSEL, and LPRC), as well as representatives from less industrialized countries (GDW and SGC), pivotal for their special insight view of mechanisms and networks in their respective world region. The FORAM consortium brings together 12 organizations as full partners, several organizations as Third Parties (11 of them under the umbrella of EGS and the others under the umbrella of EFG) and about 20 more as Advisory Board members.

#### 2. Setting up the EU-based platform of Stakeholders

The aim of this task was to identify target stakeholders such as international agencies, regulators and policy makers, research centers, universities, training centers, SMEs, large companies and not for profit organizations active in social and economic development, environmental protection and potential end-users for a World Forum on Raw Materials, such as investors in technology and market makers. Advisory Board from the G20 countries and from third countries active in the mining and other raw materials sector, Consortium Partners and EGS Third parties have provided the list of potential stakeholders coming from their extensive contact networks.

Approximately 1,700 contacts were initially collected. After removing duplications and selecting the most relevant ones, 850 remained. Until now approximately 170 have agreed to be part of the network (full list is given in Appendices B-F). However, building up a network of contacts is a continuous process and we plan to invite new stakeholders constantly until the end of the project. FORAM Stakeholders Panel gathers extensive network of contacts representing major raw materials communities extending all over the world: Europe, Asia, Africa, Australia, North and South America, with European predominance. It has relevant coverage related to the entire raw material value chain, with predominance in exploration, mining and processing of primary raw materials. Furthermore, FORAM Stakeholders Panel represents a heterogenous group of stakeholders covering various sectors, mainly in research and industry.

#### 2.1. Clustering of the stakeholders

The most important topics in raw material sector today were obtained at first from the results of questionnaire for stakeholders and afterwards by gathering suggestions from FORAM Consortium partners and EGS third parties. In order to obtain the most appropriate clustering of stakeholders, a matrix approach was used, by opposing the most important topics in raw material sector today at the one side and the entire raw materials value chain at the other side.

#### 2.1.1. Questionnaire for Stakeholders

The questionnaire for stakeholders was composed with an aim to obtain the details about their profile (country/region, sector, value chain, position in the institution), but also to make survey on stakeholders' opinions about current most pressing needs in the raw material sector, about the importance of establishing World Forum on Raw Materials, its main objectives, their willingness to





be involved in the Panel and their ability to help. This questionnaire is available online, on FORAM project website (<a href="http://www.foramproject.net/index.php/questionnaire-for-stakeholders/">http://www.foramproject.net/index.php/questionnaire-for-stakeholders/</a>). Stakeholders that agreed to be part of the network filled in the questionnaire.

According to FORAM Stakeholders Panel, current most pressing needs in the raw material sector are: boosting resource efficiency and fostering sustainable supply, followed by the importance of information sharing, improving legislative framework and ensuring social and environmental standards (Appendix A, Figure 1).

More than 65% of our stakeholders believe that establishing World Forum on Raw Materials would be important or very important (Appendix A, Figure 2), while its main objectives should cover different topics, starting from higher resource efficiency, supply chain transparency, to advance recycling, waste management and raising awareness for raw materials industry (Appendix A, Figure 3).

Final part of questionnaire was composed of the questions related to stakeholders' willingness to be interviewed again and their ability to support the work of the FORAM project. Almost 60% of stakeholders expressed their willingness to be interviewed again (Appendix A, Figure 4). When asked about their ability to support the work of the FORAM project, almost 70% responded that they would be able to participate in discussions with other stakeholders to provide valuable insight, more than 40% would be able to participate on FORAM workshops and events, while only 20% of them would be able to inform the specific networks and spread the word about the project, but also to have active role in developing goals and strategies (Appendix A, Figure 5).

#### 2.1.2. FORAM Consortium partners and EGS third parties' suggestions

#### a) The sophisticated/exhaustive approach includes clustering stakeholders using a matrix of:

- 1) "vertical" issues such as a) mining, b) residues/ legacy co-products, c) conflicted land uses, d) water resources e) energy resources, etc.
- 2) "horizontal" issues as a) competences, b) policies, with intention to enhance governance, transparency, treaty or SDG compliance, c) labour, occupational health & safety, d) social license, etc.
- 3) possible "eco-system"-wide solutions /zero waste convergences, a) by integrated, sequential resource management (the "whole basin comprehensive recovery" approach) or b) by targeted colocations and combinations, such as phosphogypsum and red mud.

#### b) The simple approach includes clustering by areas of interest/activity:

- 1) Research and innovation
- 2) Education and outreach;
- 3) Industry and trade;
- 4) Recycling and substitution.





#### c) Different approach of the horizontal and vertical issues:

- 1) Differentiation by step of the value chain: Exploration/Mining, Processing, Materials (Manufacturing/Production), Recycling this will cover most of the stakeholders that answered to the questionnaire.
- 2) Topics of interest (start with the more precise/tangible topics from the survey results): Legislative framework, social and environmental standards (Social license to operate, SDGs), Transparency/Sustainability, Trade.
- 3) If we find topics that are of interest of different stakeholders from the value chain, this could be a further step to de-silo the raw materials thinking/community.

## d) Suggestion to use the structure from MICA project (Daniel Cassard has led the development of this ontology):

As part of the MICA project, a so-called ontology was developed which "organizes" the value chain of primary and secondary mineral raw materials in terms of key words. This ontology serves as the basis for the development of a Raw Material Intelligence Platform (RMIP), which is currently being finalized. The MICA project ends early 2018 and therefore project results should be available at that time. The primary "domains" of the ontology are the following:

- D1 Primary Mineral Resources,
- D2 Secondary Mineral Resources,
- D3 Industrial Processing and Transformation,
- D4 Raw Material Economics,
- D5 Raw Materials Policy & Legal Framework,
- D6 Sustainability of Raw Materials,
- D7 International Reporting.

(and there are transverse domains on "Methods" and "Data").

Each domain is subdivided into different areas (e.g. "Mineral Exploration", "Mine development", etc. for D1), with up to four levels of detail. The RMIP provides users with information regarding the various aspects of mineral raw materials along the value chain, via so-called fact-sheets and flowsheets.

#### e) Suggestion following areas of interest/activity

- 1) Explorers and suppliers (for Latin American countries)
- 2) Research and innovation
- 3) Industry and trade
- 4) Recycling and substitution
- 5) Education (What university level training programs are needed to support a vibrant raw-materials industry in Europe and abroad)

#### f) Topics that could be used during the dialogue with stakeholders:





- 1) The importance of mineral policy how does it support the exploration and extraction of minerals?
- 2) Waste management, secondary raw materials economic viability, legal and technological constrains of their usage
- 3) Information framework (classification and inventory of mineral resources, information on mineral potential) with special attention to the development of a joint language (international reporting codes, UNFC, INSPIRE)

#### g) Topics that could be of interest for stakeholders and stimulating debate:

- 1) Composition and inventory of stocks
- 2) Environmental Impact Assessment (EIA)
- 3) Information sharing
- 4) Sustainable supply chain
- 5) Categorization of wastes
- 6) Recycling and reuse
- 7) Alternative materials

#### h) Two main groups to start the dialogue:

- 1) Public sector (policy makers) and academia (scientific researchers) responsible for drafting legislation aimed to guarantee everything related to ensuring the supply of raw materials as well as the protection of the environment and the social standards.
- 2) Industry, consultancies and professional associations responsible for implementing the recommendations of the first to achieve the efficient exploitation of resources and ensure a sustainable supply.

As for the geographical distribution, it would be good to make groups by geographic zones taking into account the presence of a common language or culture in order to facilitate dialogue.

#### i) Suggestions for Ukraine, two topics:

- 1. Geological education in the raw materials sector
- 2. Geosciences in the raw materials sector

#### j) Questions for discussion following value chain/important topics

- 1 Exploration what, how and when but most of all where?
- 2 Mining What, how? Are they European?
- 3 Mineral processing What minerals? Final products? End users, be they the customer who buys from them and still transforms into products or they themselves manufacture a product
- 4 Recycling what? How? And where? Statistics? End products concentrates? Bullion? Or just separated materials to be processed by someone else?
- 5 Circular economy How each sees themselves fitting in the concept?





#### 2.2. Defining target groups within Stakeholders Panel

All above listed suggestions, together with the results from questionnaire were used to define target groups. Following the first step of matrix approach, all together five groups were defined. The distribution of stakeholders between the groups was done in a way that each target group has members - stakeholders covering entire value chain. The topics are defined as described in the chapter 2.1.

Five groups of stakeholders were defined, that pivot around the following topics:

- 1. Innovation, Security of Supply and Growth,
- 2. Resource Efficiency, Environmental and Social Aspects,
- 3. Policies, Legal and Financial Frameworks,
- 4. International Cooperation and Outreach,
- 5. Research, Capacity building and Education.

#### 3. Scope, mission, vision and roles of each of Stakeholders Target Group (STG)

#### 3.1. Scope

The scope of each Stakeholders Target Group is to participate in diverse, multicultural, multilevel international and structured dialogue of communities of experts and stakeholders, oriented towards the search for solutions to overcome existing difficulties and obstacles in worldwide access to raw materials, with an emphasis on the particular topic of respective target group. The stakeholders are invited to share experiences about their needs, threats, priorities and preferences with the aim to initiate exchanges and interactions that facilitate better governance and sustainable access to raw materials and for better coordination of relevant raw material initiatives and actions.

#### 3.2. Mission

The mission of STG is:

- o to enhance the international cooperation on raw material policies and investments,
- o to establish an effective interactive dialogue with the stakeholders sharing experiences and consulting them about their needs, threats, priorities and preferences;
- o to prepare a base for a possible future operational dialogue platform.

#### 3.3. Vision

The vision of STG is to provide:

• a more joint and coherent approach towards raw materials policies and investments worldwide





• fair and sustainable access to primary and secondary raw materials worldwide to maximize resource-efficiency and their circularity.

#### 3.4. Roles within Stakeholders target groups

Roles of Stakeholders target groups are the following: Target Group Leader, Support, Observer, FORAM project Advisory Board Members and Stakeholders.

Stakeholders target groups are led by <u>Target Group Leader</u>, who is an expert in the field, in charge for the following tasks: hosting the Stakeholders videoconferences, writing agenda of the Stakeholders videoconferences, summarising the main outcomes of the dialogues. <u>Support</u> to target group leader is provided from the expert(s) in the field, mainly to support technical and logistical needs of the videoconferences. <u>Observers</u> and <u>Advisory Board Members</u> have a main purpose to monitor the dialogue process and to keep the dialogues within the scope, mission and the vision of the target groups. <u>Stakeholders</u> are invited to share experiences about their needs, threats, priorities and preferences with the aim to initiate exchanges and interactions that facilitate raw materials trade and for better coordination of relevant raw material initiatives and actions.

#### 4. Stakeholders target groups

Target Group 1: Innovation, Security of Supply and Growth

Target Group Leader: UNI KASSEL

Support: BGR

Observers: WRFA, EGS

Advisory Board Members: ETP SMR (Corina Hebestreit), EIT (Karen Hanghoj), WMF, CSIRO

No. of members: 43

List of stakeholders: Appendix B

#### Stakeholders profiles:

<u>Type of organization</u>: University, Association, Company, Consultancy company, Federal, Individual, Public authority, Ministry, Government, Commercial, Intergovernmental organization, Industry, Project

<u>Domain:</u> Resource efficiency, Sustainability, Markets, Governance, Mining and metallurgy, Raw material, Research, Industrial, Circular economy, Geology, Research, Exploration, Mineral processing, Mining regulation, Economy, Land resources

<u>Value chain:</u> Processing, Manufacturing, Product Development, Recycling, Exploration, Mining, Extraction, Transformation, Resource evaluation, Substitution, Circular economy, Data collection, studies, Feas. Studies, Education, Research, Exploitation, Extractive activities, Regulation, Extraction, End use, Product Development

<u>Field:</u> Community, Industry, Consultancy, Public Sector, Education, Academia, Research, Private Sector, Consultancy





<u>Countries:</u> Austria, Belgium, Chile, Colombia, Costa Rica, Croatia, Germany, Hungary, Italy, Mexico, Mozambique, Panamá, Portugal, South Africa, Spain, Switzerland, Thailand, UK, Uruguay, USA.

Target Group 2: Resource Efficiency, Environmental and Social Aspects

Target Group Leader: Leiden Uni

Support: SGC

Observers: WRFA, EGS

Advisory Board Members: EMAF, IGES (Lewis Akenji), UNEP, WEEE

No. of members: 45

List of stakeholders: Appendix C

#### Stakeholders profiles:

<u>Type of organization:</u> Company, University, Individual, Association, Research and Technology Organization (RTO), Government, Ministry, NGO, Federal, Consulting company, Commercial, Intergovernmental organization, Industry, Project

<u>Domain:</u> Geology and Mining, Metals, Industry, Recycling, Substitution, Resource efficiency, Sustainability, Markets, Governance, Exploration, Mineral processing, Research, Mineral Raw Materials, Research for Recycling, Human Resources, Metallurgy, Policy maker, Mining, Natural resources, Environmental Regulation, Science and Technology, Minerals, Raw Materials for energy, Economy, Land resources

<u>Value chain:</u> Mining, Processing, Manufacturing, Product Development, Recycling, Substitution, Extraction, Resource evaluation, Exploration, Geology, Metallurgy, Feas. Studies, Iron Ore Market Research, Education, Research, Sustainability, Regulations, Data collection, studies, End use, Whole value chain, Manufacturing, Reduction of Feedstock

<u>Field:</u> Industry, Academia, Consultancy, Community, Public sector, Private Sector, Cluster, Consultancy, Education, Research, Public awareness

<u>Countries:</u> Australia, Belgium, Brazil, Canada, Chile, Colombia, Croatia, East Timor, France, Germany, Mexico, Mozambique, Peru, Portugal, South Africa, Spain, Sweden, Switzerland, UK, USA.

Target Group 3: Policies, Legal and Financial Frameworks

Target Group Leader: WRFA

**Observers:** EGS

Advisory Board Members: CRIRSCO (Harry Parker), UNECE EGRC (Harikrishnan Tulsidas), USGS, WB

No. of members: 43

**List of stakeholders**: Appendix D

#### Stakeholders profiles:

<u>Type of organization:</u> University, Individual, Trade association, Company, Consultancy company, Individual, Association, Government, Intergovernmental organization, Research Institute, Research, EU Project, State Laboratory -Ministry of Economy, Federation, Spin-off university, Federal





<u>Domain:</u> Resource efficiency, Sustainability, Markets, Governance, Mining, Quarrying of aggregates and industrial minerals, Geology, Industrial, Metals, Exploration, Mineral processing, Research, Technology, Environment, Mineral Resources, Metallurgy, Industrial minerals, Geothermal science, Mining regulation, Minerals, Aggregates, Rare Earth Elements

<u>Value chain:</u> Mining, Geology, Processing, Manufacturing, Product Development, Recycling, Extraction, Exploration, Processing, Resource evaluation, Education, Processing, Substitution, Feas. Studies, Research, Chamber, Restoration, Data collection, Regulation, Sustainability, Studies, End use, Whole value chain, Governance (EC)

<u>Field:</u> Academia, Consultancy, Community, Government, Extractive industry, Public sector, Industry, Education, Private sector

<u>Countries:</u> Belgium, Canada, Colombia, Cuba, Finland, Germany, Hungary, Ireland, Italy, Japan, Mexico, Mozambique, Norway, Portugal, South Africa, Sweden, Surinam, Switzerland, UK, Ukraine, Uruguay, USA.

Target Group 4: International Cooperation and Outreach

**Target Group Leader:** EFG **Observers:** WRFA, EGS

Advisory Board Members: DST (Department of Science and Technology, International Cooperation and Resources, South Africa), OAGS (Organization of African Geological Surveys), IUGS (International Union of Geological Sciences)

No. of members: 44

List of stakeholders: Appendix E

#### Stakeholders profiles:

<u>Type of organization:</u> Individual, University, Company, Association, Consultancy company, Public research body, Association, Government, Institute, Federation, Intergovernmental organization, Research institution, Industry

<u>Domain:</u> Geology, Resource efficiency, Sustainability, Markets, Governance, Mineral processing, Mining, Industrial, Metals, Exploration, Research, Processing, Mining and metallurgy, Promotion, Aggregates

<u>Value chain:</u> Geology, Mining, Extraction, Processing, Exploration, Resource evaluation, Recycling, Feasibility Studies, Education, Research, Exploitation, Promotion, Sustainability, Studies, Mining plan, End use, Whole value chain, Public Policy, Analysis, Latin America strategy vinculate with Europe, Manufacturing, Consulting & Laboratories on Industrial Minerals

<u>Field:</u> Consultancy, Academia, Government, Industry, University, Public sector, Education, Private Sector

<u>Countries:</u> Argentina, Australia, Belgium, Canada, Colombia, Germany, Ethiopia, France, Greece, Hungary, Ireland, Italy, Mexico, Mozambique, Portugal, Spain, Switzerland, UK, USA.





Target Group 5: Research, Capacity Building and Education

Target Group Leader: UNU Observers: WRFA, EGS

Advisory Board Members: ASGMI (Association of Ibero-American Geological and Mining Surveys), CCOP (Coordinating Committee for Geoscience Programmes in East and Southeast Asia), DG JRC,

Yale (Barbara Reck)
No. of members: 43

List of stakeholders: Appendix F

#### Stakeholders profiles:

<u>Type of organization:</u> Individual, University, Company, Commercial, Consultancy company, Government, Federation, EU Project, Intergovernmental organization, Research institution, Industry

<u>Domain:</u> Geology, Resource efficiency, Sustainability, Markets, Governance, Mining, Industrial, Minerals, Metals, GEO Engineering, Research, Metallurgy, Academic, Financing, Technology, Aggregates, Industrial, Chemistry, Economy, Land resources

<u>Value chain:</u> Mining, Geology, Minerals, Mining Equipment, Exploration, Processing, Resource evaluation, Exploration, Recycling, Exploration, Feas. Studies, Education, Research, Exploitation, Financing, Sustainability assessment, Sustainability, Substitution, Extraction, Data collection, Studies, End use, Whole value chain, Studies about the minerals market; Policy makers, Disposal, Consulting & Laboratories on Industrial Minerals

<u>Field:</u> Consultancy, Academia, Industry, Public sector, Consultancy, Education, University, Private <u>Countries:</u> Australia, Belgium, Canada, Chile, Colombia, Croatia, Ecuador, Germany, Greece, Ireland, Italy, Japan, Mexico, Mongolia, Mozambique, Netherlands, Poland, Portugal, Sweden, Switzerland, UK, Ukraine, USA.

### 5. Stakeholders dialogues

The first round of Stakeholders videoconferences was organized in February 2018. There were in total 5 videoconferences, corresponding to above defined target groups. The dialogues were planned to revolve around the need for fair and unrestricted access to raw materials and for joint and coherent approaches towards raw materials supply, policy and investment; the stakeholders were invited to share experiences about their needs, threats, priorities and preferences with the aim to initiate exchanges and interactions that facilitate raw materials trade and for better coordination of relevant raw material initiatives and actions. The results of these videoconferences will be reported in the Deliverable 2.2. A second round of videoconferences for combined groups will be held in May 2018.





#### 6. Advisory Board

The FORAM Advisory Board (AB) has the main objective to provide high level advice to the project, ensuring that all perspectives and aspects that can help in facilitating international cooperation on raw material policies and investments are considered and to ensure the best possible alignment with stakeholder's views and needs. The Advisory Board members will support the project to include the international key stakeholders and their already existing initiatives and platforms into the project's network. Advice on key strategic decisions and reflect on project's findings and results are also expected from the Advisory Board.

The FORAM AB is composed of key policy/decision makers, experts and influencers from multilateral organizations and national governments, multi-stakeholder platforms, industry platforms, Geological and Mining Surveys representing all world regions, think-tanks and research institutes active on different sectors of the raw materials value chain. The members normally serve the AB by representing their organizations in their official capacity. In exceptional cases, they might serve in their individual capacity. For the above reasons, membership is assigned to specific individuals, who are not supposed to be represented by others, unless under exceptional circumstances, to be approved by the FORAM Management Committee.

During the preparation of the proposal and within the first three months of the project (January 2017), the main composition of the AB was defined, and a Governance Document was prepared, which was reviewed and confirmed by all Board members. These were submitted as Deliverable 6.6 to the European Commission. Since the submission of this deliverable, the existing composition of the Board have been updated and a new member has been added to the list. Due to internal reorganization, two members representing International Study Group and G7 CONNEX Initiative, have not been able to cooperate with the project. Despite several communication efforts, the introduction of their successor is still pending.

The updated list is presented in Table 1. Composition of the Board is available on FORAM website and intranet (<a href="http://www.foramproject.net/index.php/consortium/advisory-board/">http://www.foramproject.net/index.php/consortium/advisory-board/</a>).

Table 1. Updated list of the FORAM Advisory Board members (30.04.2018)

Name of organization	Country	Name of assigned persons	Email address
Association of Ibero-American Geological and Mining Surveys (ASGMI)	Mexico	Raúl Cruz Ríos	raulcruz@sgm.gob.mx
Committee for Mineral Reserves International Reporting Standards (CRIRSCO)	USA	Harry Parker	harry.parker@amecfw.com
Commonwealth Scientific and Industrial Research Organization (CSIRO)	Australia	Hinz Schandl	heinz.schandl@csiro.au
Coordinating Committee for Geoscience Programmes in East and Southeast Asia	Thailand	Adichat Surinkum	adichat_s@ccop.or.th





(CCOP)			
Department of Science and Technology,	South Africa	Daan du Toit	Daan.duToit@dst.gov.za
International Cooperation and			
Resources, South Africa (DST)			
Ellen MacArthur Foundation (EMAF)	GB	Joss (Jocelyn) Blériot	joss.bleriot@ellenmacarthurfoundation.o
			rg
European Technology Platform on	Belgium	Corina Hebestreit	hebestreit@euromines.be
Sustainable Mineral Resources (ETP			
SMR)			
European Commission - DG Joint	Belgium	Constantin Ciupagea	constantin.ciupagea@jrc.ec.europa.eu
Research Centre			
European Institute of Innovation &	Germany	Karen Hanghoj	karen.hanghoj@eitrawmaterials.eu
Technology / KIC Raw Materials (EIT)			
G7 CONNEX Initiative (CONNEX)	USA	Name to be confirmed	
Institute for Global Environmental	Japan	Lewis Akenji	Akenji@iges.or.jp
Strategies (IGES)			
International Study Group (ISG)	Portugal	Name to be confirmed	
Organization of African Geological	South Africa	Fhatuwani	Lramagwede@geoscience.org.za
Surveys (OAGS)		Ramagwede	
UN Economic Commission for Europe	Switzerland	Harikrishnan Tulsidas	h.tulsidas@outlook.com
Information Service Expert Group on			
Resource Classification (UNECE EGRC)			
United Nations Environment,	France	Peder Jensen	peder.jensen@un.org
International Resource Panel (UN			
Environment IRP)			
United States Geological Survey (USGS)	USA	Steven Fortier	sfortier@usgs.gov
Waste Electrical and Electronic	Belgium	Pascal Leroy	pascal.leroy@weee-forum.org
Equipment Forum (WEEE)			
World Bank (WB)	USA	Christopher Sheldon	csheldon@worldbank.org
World Materials Forum (WMF)	France	Victoire de Margerie	victoire36@icloud.com
Yale School of Forestry and	USA	Barbara Reck	barbara.reck@yale.edu
Environmental Studies (Yale)			
International Union of Geological	China	Qiuming Cheng	qiuming.cheng@iugs.org
Sciences			





## **Appendices**

#### Appendix A. Results of Questionnaire for Stakeholders

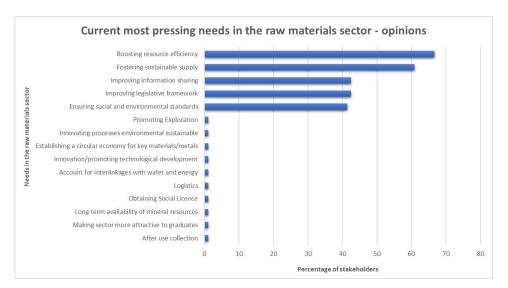


Figure 1. Current most pressing needs in the raw material sector according to FORAM Stakeholders Panel

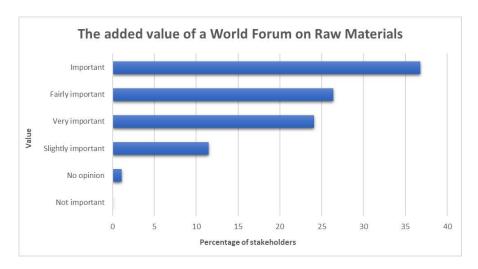


Figure 2. Importance of establishing World Forum on Raw Materials according to FORAM Stakeholders Panel





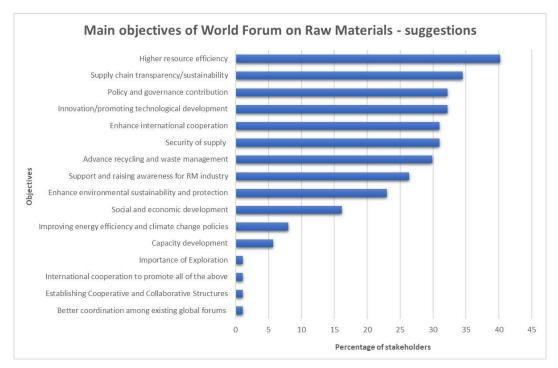


Figure 3. Main objectives of World Forum on Raw Materials according to FORAM Stakeholders Panel

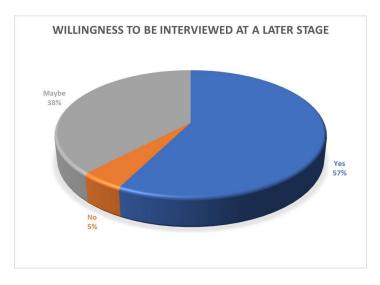


Figure 4. FORAM stakeholders' willingness to be interviewed again





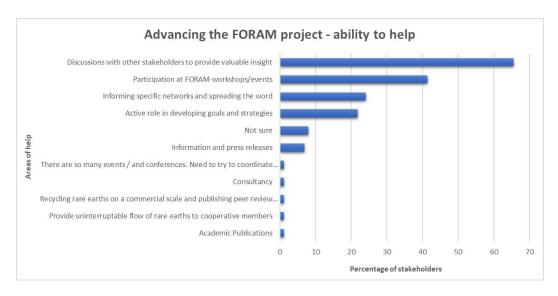


Figure 5. FORAM stakeholders' ability to support the work of the FORAM project





## Appendix B. List of Stakeholders, Target Group 1

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Earth Elements, Mining Minerals and			
Metals (ThREEM3)		James Kennedy	
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PTT Global Chemical Public Co., Ltd.	Thailand	Supattanapong	supattanapong.p@pttgcgroup.com
		Punmeechaow	
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Jacinto Sitoe	Mozambiqu		jgsitoe@gmail.com
	е	Jacinto Sitoe	
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## Appendix C. List of Stakeholders, Target Group 2

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Vale Mocambique, S.A.	е	Leonardo Xerinda	
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Companies Inc.		Graham Short	
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Laboratório Nacional de Energia e Geologia (LNEG)	Portugal	Daniel Oliveira	daniel.oliveira@lneg.pt
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Dirección General de Minas	Mexico	Claudia Yolanda Ibarra Palafox	claudia.ibarra@economia.gob.mx
University of Lisbon	Porugal	António Mateus	amateus@fc.ul.pt
Instituto de Geología y Paleontología	Cuba	Luis J. Gómez Narbona	lgomez@igp.minem.cu
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REE Minerals AS	Norway	Aslak Aslaksen	aslak.aslaksen@reeminerals.no
ICMM		Tom Butler	tom.butler@icmm.com
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Ingegneri Minerari	Italy	Domenico Savoca	
IGF-Secretariat / IISD		Greg Radford	gradford@iisd.ca
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## Appendix E. List of Stakeholders, Target Group 4

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Colombia)	Colombia	Pineda	_
Mineros Nacionales	Colombia	Andres Restrepo Isaza	gerencia@mineros.com.co
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## Appendix F. List of Stakeholders, Target Group 5

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