



NEWSLETTER

TOWARDS A WORLD FORUM ON RAW MATERIALS

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Interview with Dr. Karen Hanghøj CEO, Managing Director EIT RawMaterials GmbH

Could FORAM really make a difference to ensure EU supply of Critical Raw Materials? Why/How?

The European strategy and agenda on raw materials has to be anchored in a global perspective because criticality, scarcity and supply risk of raw materials are closely linked to geopolitical issues and global markets, demands and material flows.

The EU Member States are strongly committed to implementing the 2030 Agenda for Sustainable Development, and to supporting the transition towards increasingly green technologies and a circular economy. Raw Materials are at the core of these issues, and this is expressed in the European Raw Materials Initiative, which has an overall goal to ensure the sustainable supply of raw materials to the European economy.

The Raw Materials Initiative has three pillars,

- 1) Fair and sustainable supply of raw materials from global markets,
- 2) Fostering sustainable supply within the EU,
- 3) Boosting resource efficiency and promoting recycling.

All three pillars of the Raw Material Initiative hinge on a global sustainable mineral production at highest environmental and social standards. In order to achieve this, dialogue, collaboration and coordination regarding raw material policies and investments, is essential.

FORAM has the possibility to help ensure the global dialogue by advancing the idea of a World Forum on Raw Materials. Such a forum can enable a global common understanding of how the raw materials sector should look, and strengthen international cooperation and knowledge sharing on all aspects of raw materials production and consumption.

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Interview with Prof. Victoire de MARGERIE Vice Chairman - WORLD MATERIALS FORUM



How could the various stakeholders educate and inform the society about the exploitation of resources?

By 2030, 1.5 billion people will move up to the middle class. Lifting billions of people out of poverty is great news, but it raises the question of how to satisfy the needs of these new consumers. Giving them access to clean water and air as well as to proper food, housing and mobility solutions will put the resources of our planet under incredible pressure.

So we will need to align 3 objectives that may seem contradictory: careful use of our natural resources, profitable growth for our industries, and fulfilling the needs of our citizens. And we will also need to design high value solutions at minimum cost.

In fact we started a while ago: with a smartphone today you can make a call, send a mail and take a picture and this all in an object weighing just 100 grams. 30 years ago, you needed 3 devices weighing 15 kilograms for the same functions, and with much less performance. So great progress already but still a lot to be done as manufacturing this 100g smartphone requires 70 kilos of materials and as less than 2 % of smartphones are recycled every year.

To move forward, we need to:

- Use less, which means both reducing the buy to use ratio (the 70 kgs for 100g in the smartphone), increasing end of life recycling and use recycled materials into new products.
- Use longer, which implies lengthening a products life span, and give more value to second hand products through easy retrofits.

- Use smart, by increasing the product performance per kilo of incoming materials or the full product usage: where aircraft are in service 50 to 70% of the time, cars are only 5 to 7%.

Tech solutions are plenty and experts in all sectors are working hard to come up with solutions including 3D Printing, Plastics Recycling, Internet of Things or New Mobility Solutions.

The difficulty is therefore less to find good ideas than to put them to work while involving all stakeholders of the value chain - industrialists, academics, regulators and start ups.

This has been from the start the purpose of World Materials Forum that I founded and co chair: bring all stakeholders from the entire world together, create trust, exchange data and use our collective intelligence to develop practical and actionable solutions.

We just concluded our 3rd edition and we have progressed a lot on informing and educating:

- 50 high level speakers and another 200 high level participants came from the entire world.
- we agreed about a set of KPIs to be used by all industries to show how we progress on the route towards using less, longer and smarter.
- we will now deploy our influence further through identifying and contacting another set of top influential people worldwide (whether industrialists or regulators, think tanks or NGOs)

We have only one planet, not two. So, let's be creative together and get everyone on board if we want to make our Planet Great Again.



Interview with Harikrishnan Tulsidas, Economic Affairs Officer United Nations Economic Commission for Europe (UNECE) in the Sustainable Energy Division

How could the FORAM Advisory Board contribute to the Raw Materials information flows?

The human civilization as it stands today could not have been possible without the ability to produce and use a large spectrum of raw

materials. The necessary infrastructure, energy, communications, food production, health services, manufacturing - to name only a few - need a variety of raw materials. A global value network produces these materials, refine it and transform it into valuable products and services. Europe, today is an important consumer,

but also plays a significant role in developing and implementing the technologies required at various steps in this value network. Hence, the idea of a World Forum on Raw Materials (FORAM) as a European platform to bring together the global actors in the value system assumes importance. It is important to see how the Advisory Board provides different perspectives for this goal and fulfils a singularly important role.

The raw material industry is facing increasing pressures from multiple directions. With growing population and current patterns of consumption, three planets similar to earth may be required to satisfy the future needs. With readily available material already recovered and consumed, the production costs to bring new materials to market are increasing. To produce a unit of raw material today requires significantly larger capital investments. Producers try to balance larger investments with higher capacities to optimize costs, but this creates an oversupply and subsequent low market prices.

Added to the market woes, there has been a public recognition of the dangerous course of the carbon emissions. This understanding is backed by decades of solid scientific research. Similar considerations are important in the move towards balancing the societal needs today while assuring a place for the future generations on this planet. There has been a consensus on the Sustainable Development Goals (SDGs) that will ensure holistic and equitable development for all.

However, what has appeared to our midst less noticed are the winds of change that are fundamentally changing the way people live, work and behave. Referred as the Fourth Industrial Revolution, a confluence of many emerging and diverse technologies is driving this change. Importantly, new models in energy and material flows are accelerating this shift, especially in exponentially decreasing the requirement of raw materials. We are seeing energy efficiency and “de-materialization” trends that are pulling in a different direction to the increasing population and urbanization led demand.

While raw material production and supply will be a major contributor to green energy and green technology revolution, the public perception of the industry has plummeted to an all-time low. Due to past unhealthy performances, and reluctance to embrace better environmental performances, the raw materials sector is seen as a “drain” industry in many parts of the world. Bringing in a new narrative for this maligned industry will require significant efforts, mostly through a path of adopting new trends in technologies, addressing the objectives of carbon neutrality and bringing in new business models that demonstrate minimum impact on the environment and advance the goal of zero waste.

The raw materials industry is thus seeing global challenges, as well as emerging opportunities. The problems are more complex and multi-faceted, and the response needs to be much more than just local. Partnership, policy and perseverance are the key elements required for navigating the complex landscape of raw material production and supply of the future.

FORAM, as the largest initiative of its kind, envisages promoting partnership, aid policy dialogue and supporting perseverance in attaining shared goal that is satisfying to all. While the core project consortium tries to deliver on the key goals, the FORAM Advisory Board is the staging ground to bring in the perspectives of partners from the wider arena of the industry, governments and international organizations. Without this extensive stakeholder involvement, all efforts in realizing the grand objectives may fall short.

Thus, the Advisory Board thus hopes to bring in fresh views and information on the patterns in raw material flows, and contribute to FORAM that is responsive to the needs of the future.

FORAM project global mapping and analysis of raw material initiatives

The FORAM project is mapping multi-stakeholder initiatives working on raw materials globally. Through an online questionnaire, information is collected on the initiatives’ organisational structure, objectives and strategies, type of raw materials, number of stakeholders involved, step in the value chain and more. With this information, the FORAM project has created an overview of currently active multi-stakeholders groups.

More than 100 initiatives have already been mapped that are related to the primary and secondary raw materials sectors (such as associations, fora, platforms etc.). To see the first results, please visit the online interactive Geo-Map, where you can scroll over the individual initiatives to find more information. The colours in the map are linked to the organisational structures of the initiatives, and the sizes are linked to the number of stakeholders.

In our Results section, some analytical graphs can be found based on these results.

Based on the criteria and indicators developed by the project partners, an assessment of existing initiatives and their scope and activities will be carried out. We invite you to re-visit our page again early September 2017, when the Geo-map and analytical results will have been updated. The website will then also publish a directory with available data and statistics on raw materials, and their use and needs in various industrial sectors, that will help to make recommendations on the worldwide situation on raw materials information.

The FORAM project at World Resources Forum (WRF) 2017, 24-25 October in Geneva, Switzerland.

The FORAM project will be presented at World Resources Forum (WRF) 2017, 24-25 October in Geneva, Switzerland. WRF is the flagship activity of the World Resources Forum Association and is a platform for sharing of knowledge and creation of debate amongst all stakeholders involved in the resources management discourse. By setting up the platform for interaction of influential decision makers, established civil societies, key industrial players, leading scientists and the empowered public, WRF envisions to emerge innovative and effective solutions, address the issue of efficiency and sufficiency of resource utilization and set the agenda and develop solutions on sustainable use of resources worldwide.

The WRF is widely recognized for its global and multidisciplinary character, gathering between 500 - 1'000 participants from all over the world. WRF 2015 brought more than 600 participants from 102 countries together and WRF 2014 gathered over 1'000 participants coming from 40 countries. Another important feature of WRF is the collaboration with United Nations agencies, such as the United Nations Environment Programme (UN Environment) or United Nations Industrial Development Organisation (UNIDO).

WRF takes place in Switzerland every two years since 2009 and another country is selected for the years in-between. For instance, previous WRFs were held in China (Beijing, 2012), Peru (Arequipa, 2014), Australia (Sydney, 2015) and Costa Rica (San Jose, 2016) and were organized in close cooperation with key local partners. See the timeline below for a better overview of WRF conferences (regional and global editions).



Every year, the scientific input of the conference is supported by a Scientific Committee, led by two co-chairs, Professor Christian Ludwig (EPFL) and Professor Sonia Valdivia (WRF). The committee is formed by high level experts in the field of sustainability and its members may vary according to the location of the event, since the involvement of local experts is of great importance. The members' main task relates to the peer-reviewed selection process of scientific contributions submitted for presentation and discussion during scientific sessions. Workshops, organized by different international partners from different sectors, are an essential part of the success of the program. They contribute with relevant success cases on sustainable development, covering a variety of international activities, topics and tools. Furthermore, plenary sessions usually focus on current actions taken towards sustainable resource management and the cooperation needed to make the transition happen.

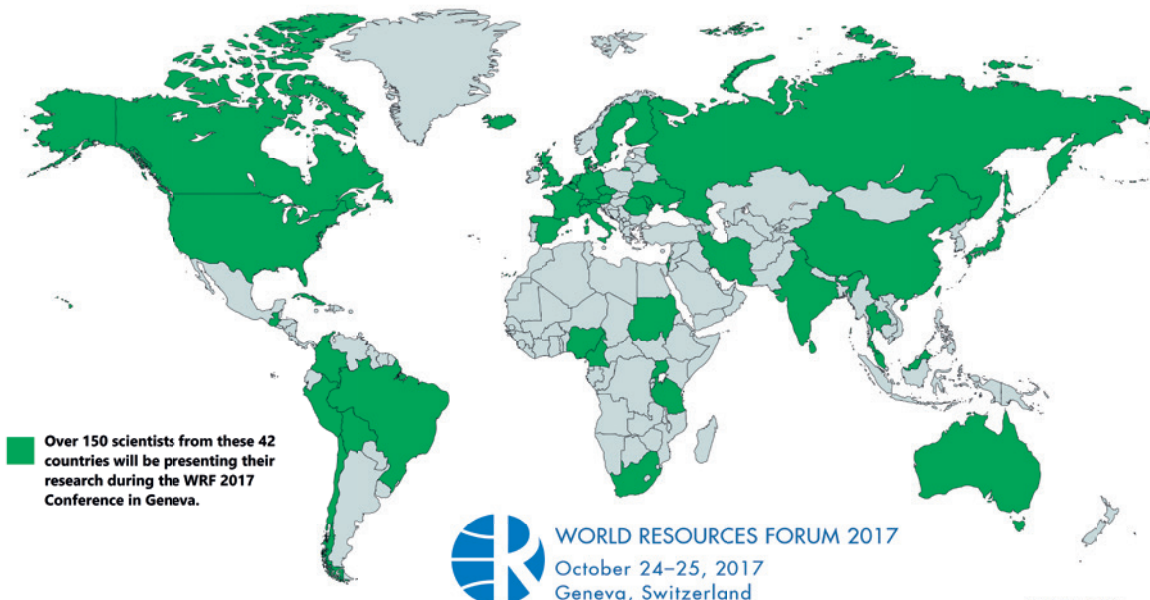
WRF 2017 will be held at the Centre International de Conférences in Geneva (CICG), on October 24-25. The two-day event will focus on the topic Accelerating the Resource Revolution and will include plenary debates, sixteen partner workshops, twelve scientific sessions, exhibition, press conferences, WRF Cinema, Art Gallery, and social program. In short, the signature WRF format, is carefully designed to deliver an international, open and involving multi-stakeholder dialogue.

WRF 2017 main topics include:

- Governance of Raw Materials
- Circular Economy and Sustainable Recycling
- Sustainable Development Goals (SDGs)
- Business Concepts on Resources Efficiency & Decoupling
- Sustainable Consumption & Production
- Life Cycle Thinking
- Smart Cities, Infrastructure and Lifestyles
- Capacity Building for Resource Efficiency

WRF 2017 Program at

www.wrforum.org/world-resources-forum-2017/program



Enhancing Dialogues among FORAM stakeholders

The project Towards a World Forum on Raw Materials (FORAM) develops and sets up an EU-based platform of international experts and stakeholders that will advance the idea of a World Forum on Raw Materials and enhance the international cooperation on raw material policies and investments. The FORAM project contributes to consolidating the efforts towards a more joint and coherent approach towards raw materials policies and investments worldwide.

One of the key objectives of FORAM is starting dialogues among the experts and stakeholders in the network who cover the entire supply chain of raw materials all over the world. The dialogues will 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. Stakeholders are invited to share experiences about their needs, challenges, priorities and preferences with the aim to initiate interactions that facilitate raw materials trade and for better coordination of relevant raw material initiatives and actions. To be successful in achieving this a questionnaire has been created for the stakeholders that will help in identifying the main topics of interest and lead to starting structured dialogues.

The ultimate scope of initiating the dialogues amongst the huge, diverse, multicultural, multilevel international communities of experts and stakeholders is the search for solutions to overcome existing difficulties and obstacles in the worldwide access to raw materials. Together with the stakeholders and in close consultation with the Advisory Board options will be identified for better international cooperation and discussed with relevant target groups. The 850 stakeholders who were invited to participate in the project so far will receive the questionnaire and the data collected will give insight into which part of the raw materials value chain their expertise is linked to, the main objectives they feel need to be addressed by a World Forum on Raw Materials and also how they can best help in advancing the idea of a World Forum on Raw Materials.

If you are not already involved in the FORAM project and would like to be, we invite you to complete the questionnaire using the following link:

www.foramproject.net/index.php/questionnaire-for-stakeholders



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ON RAW MATERIALS



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