



World Materials Forum: Genesis and goals

Victoire de Margerie
European Resources Forum
Berlin, November 10th 2016

The genesis of our World Materials Forum:

- The meeting of 3 individuals:

André Rossinot who has spent the last 30 years « revamping » Nancy in the materials industry after the closures of all mines and steel works in the 80s,

Philippe Varin who is a signature CEO of the world industry having run Péchiney, Corus, PSA Peugeot Citroën and now Areva

Victoire de Margerie , half entrepreneur, half academics, who dreamt of creating a new « Davos » focused on materials specific issues.

- The wish to **gather CEOs and top executives from the global materials industry all along the value chain** from mining to **recycling together with world known academics, breakthrough start uppers and key social, environmental and political leaders** in the same field.
- The opportunity to **debate at the highest level in an unformal environment** in order to **identify, prioritize and solve important and complex problems.**

What are those problems that we need to address?

- If we wish not to exhaust our natural resources, **we need to decouple economic growth and use of materials. Which we started doing already 30 years ago.** An I Phone weighs around 130g as a final product today. As a comparison in 1985 and for the same 3 functions (mobile phone + camera + mailbox) you needed 3 different products for a total weight of 15,4 kgs (0,8 kg + 3,6 kgs + 11kgs): 12 times more!
- Beyond reducing the weight of the final product for same - and better - functions, **we need to reduce the quantity of materials used all along the value chain (from extracting the raw material to recycling the final product).**
- **Solutions exist but they are far from being fully developed and this is not obvious to decide which one is the smartest one for a given material and/or application.** Examples of 3D (less materials thanks to product design but still much more due to industrial process wastes) or Plastic recycling (non profitable when oil price below 50\$?) or IoT (data analytics great for developing more efficient materials solutions but data storage a drag on electricity consumption...)

How can WMF deliver?

- **By making WMF a "must" meeting every year in June in order to develop win win solutions that create value for all actors.** Industrial companies need to speak a common language with other stakeholders so that financial and CSR objectives can co exist (see plastics recycling).
- **Over the first 2 editions we have had the pleasure of welcoming**
 - Great partner CEOs:** Arkema (France), Europcar (France/Germany), Faurecia (France), Guala Closures (Italy), Italcementi (Italy), Ivanhoe Mining (Canada/Singapore), Morgan Advanced Materials (UK), Mitsubishi Heavy Industries (Japan), PSA Peugeot Citroen (France), Rio Tinto Energy & Minerals (Australia), Saint Gobain (France), Smiths Group (UK), Solvay (Belgium), Versalis (Italy) and Voest Alpine (Austria).
 - Top executives:** CEO of Airbus Helicopters & EVP Sourcing of Airbus Group (Germany/France), EVPs Europe of Hexcel (USA), Uber (USA) and PSA (France), the CEO of Ecobank Investment Branch (Ghana/Nigeria), the CTOs of Valspar (USA), Larsen Toubro (India) and GKN (UK), and some senior researchers of Nike (USA), Decathlon (France) or Yasaki (Japan).
 - World known academics** from Stanford University, University of Yale, Max Planck Institut Halle Wittenberg, Tohoku University, UC San Diego and Irvine, Leiden University, Hanyang University, ESCP Europe, Mines Paristech, ITV Denkendorf, Lulea Technical University, and Université de Lorraine.
 - Key representatives of CSR organizations:** WRF and also DSD (Germany), Ecoemballages (France) or IUCN (Switzerland)
 - CEOs of start ups:** Adeneo, or I Pulse (France), Lithoz (Austria), Greener Way (Bhutan) or Clean Teq (Australia).

At WMF 2017 we will focus on **implementing solutions**

- **Offer an update on future materials trends shared by 3 of the world top experts** of the sector (Mc Kinsey, the French geological survey - BRGM, and the UK metal markets specialist based CRU).
- Propose-an all industry set of indicators that will efficiently **monitor the decoupling of economic growth and use of materials while creating value for all economic actors** (WMF and Arthur D Little).
- **Demonstrate some key practical solutions:** design for light weighting AND recycling (rather than light weighting OR recycling), use Internet of Things and new mobility services to develop sustainable materials solutions, and support circular economy development thanks to standardized Life Cycle Analysis.
- **Organize a competition of world start ups that offer a technology breakthrough** in one of the following 6 domains: Internet of Things, 3D Manufacturing, Product Design, Materials Composition, Mobility Systems or Waste Management. The jury will select the top 10/12 candidates and WMF will give each of them a "package" including a booth at WMF for their start up and a full coverage of registration-transportation-accomodation costs for his or her CEO.

Conclusion

- An incredible number of past partners and speakers will be coming back in June 2017 with some new ones on top : the CEOs of SAPA (Norway – Aluminum), Consumer Physics (IoT – Israel), Puretech (IoT – Canada), Suez Environnement (France – Recycling) and the CEO of the EEC Program EIT Raw Materials.
- We would also be happy to welcome you in Nancy on June 29th and 30th so that we keep on developing together this collective intelligence that will make it possible to further decouple economic growth and use of materials while creating value for all economic actors.
- **Thank you for your invitation and attention**