

Webinar

An Action Plan for Critical Raw Materials: what to expect

24.11.2020

On 24 November, the Critical Raw Materials Alliance hosted its second virtual annual conference, once again with great success. The 'An Action Plan for critical raw materials: what to expect' webinar discussed challenges and opportunities related to recycling CRMs and addressed EU funding opportunities with six experts.

Raw materials markets have never faced so many challenges simultaneously: COVID-19, the decline of multilateralism, climate change, just to name a few. It is therefore very important for relevant stakeholders to have a platform to discuss the future of critical raw materials policy in Europe. The pandemic has shown how important it is for the EU to become more resilient. Our panel of experts helped understanding what challenges lie ahead.

The first Expert Panel focused on circular economy and recycling and included José Rizo Martin from the European Commission, Jan Tytgat from Umicore, and Christen Forgsgrén from EuRIC. This panel discussed the European Commission's upcoming actions and current gaps in existing legislation related to electronic waste management and CRM recycling.

The second Expert Panel invited to our webinar focused on project development and EU funding. This panel was composed of Dr. Massimo Gasparon from EIT rawmaterials, Alexandru Rosu from our CRM-A member Amerocap, and Dr. Otmar Deubzer from CEWASTE.

The first panel was moderated by CRM Alliance Secretary General Maurits Bruggink, while the second panel was moderated by Richard Wrigley from Beta Technology.

Panel 1: Recycling & Circular Economy

José Rizo Martin works in the European Commission DG's Environment as senior expert on Waste Management & Recycling. During his presentation, Mr. Martin highlighted that the current recycling rate in Europe is low. He also explained that, according to him and in contrast to many other experts, complete materials recycling is not possible. Mr. Martin believes that the real objective of EU policy in this area is to diminish production and use, while increasing collection rates to increase to overall level of recycling in Europe. On the long term, Mr. Martin also explained that the objective of the EU is to reach full collection and recycling of used batteries. According to Mr. Martin, it is also important for recycled materials to be reintroduced in production, as this would contribute to a real circular economy, which is key for the future.

Jan Tytgat is Director of EU-Benelux Government Affairs at Umicore, a global materials technology and recycling group. Mr. Tytgat introduced the Umicore business model, which is based on transformation and not on the amount of materials put on the market. According to him, the weak point of the value chain is smelting and refining, which leads to losses along the total value chain.

Regarding the recycling rate in Europe, Mr. Tytgat makes an interesting remark and explains that the collection rate of batteries in Europe is only 10%. This analysis is in line with Mr. Martin's comments in his presentation.

Mr. Tytgat continued his presentation by elaborating on the idea of 'design for recycling'. Currently, batteries and other products are not designed for recycling, but they are designed for better performances, cost and safety. Recycling is only the fourth value considered when it comes to design. He recommends packaging designers to look for standardization in the size of the format, modules and cells and the way they are fixed together. This way, disassembling would be made more safely. For new product policy, Mr. Tytgat advocates for recyclability to become the norm in production. However, he also warns that many manufacturers are not happy with this approach, which could lead to a problem of supply on the market as some manufacturers might just decide to stop selling and producing in Europe to avoid strict standards.

Christer Forsgren is Chair of EuRIC Waste & Chemicals Task Force, Director at Stena Recycling, Adjunct Professor in Industrial Material Recycling at Chalmers Technical University in Gothenburg Sweden. In contrast with our two first speakers, according to Mr. Forsgren everything is recyclable, only the cost matters. Recycling is essential and vital for the future. According to Mr. Forsgren it is important to create financial incentives and encourage recycling methods. He is also in favour of issuing a green passport which would create an incentive for producers to manufacture products that could earn this green passport. On shipment of waste, Mr. Forsgren said simplification of current procedures would be necessary.

Panel 2: Projects & EU Funding

Dr. Massimo Gasparon is Director on Innovation at EIT Raw Materials. Dr. Gasparon started his presentation by explaining how our society is going through a fundamental shift in the resource basis to fuel our economy. Dr. Gasparon highlighted that the green economy promoted in the EU Green Deal has a clear mandate, but that it is now necessary to produce functional materials. According to Dr. Gasparon, there will be an immense increase in demand for minerals and metals in the next 30 years. According to ERMA and EIT Raw Materials figures, in 2015 there were 1.2 million electric passenger cars which will become 965 million in 2050. He stated that this demand can be met only by combining primary and secondary resource development with resource efficiency, recycling and substitution.

Dr. Gasparon continued by giving an explanation of what ERMA's vision is. He explained that ERMA will secure a sustainable supply of raw and advanced materials for the EU's industrial ecosystems that support transition to a green economy and that it has four interconnected goals: (i) to bolster the creation of environmentally sustainable and socially equitable innovations and infrastructure; (ii) to implement a Circular Economy of complex products and thirdly, to support Europe's raw materials industry capability, to extract, design, manufacture and recycle materials; and (iii) to promote innovation, strategic investment, and industrial production.

He also explained that ERMA has four key horizontal activities which concern demand reduction, circularity, material decarbonization, and traceability. According to Dr. Gasparon, the advantage of a network like ERMA is that dialogue can be promoted and wide consultations are made possible. ERMA will identify challenges and advise the EU how to overcome these challenges.

Alexandru Rosu is Project Manager at Amerocap. Amerocap Mining Ventures (AMV), a private equity investor looking to develop sustainable and integrated mining and processing projects for critical raw materials (CRMs) in Europe, and a proud member of the CRM Alliance. In his presentation Mr. Rosu gave an overview of Amerocap's Magnum and Beta projects for magnesium and graphite production in Romania. Mr. Rosu explained that they started developing these projects in 2018 and could start producing by 2025 if current regulatory bottlenecks are settled.

Once the Magnum Project will start, it will become the only source of magnesium in Europe. Until then, the situation in Europe regarding primary magnesium source is critical as we remain 100% depend on third countries according to Mr. Rosu. The second project, the Beta Project focusses on extracting and processing Graphite. This critical raw material is extremely important in Europe, however, European production and reserves of Graphite are very low. Mr. Rosu argues that both projects are entirely in line with the EU's green and circular ambitions as it will help Europe build its strategic autonomy

Dr. Otmar Deubzer is Project Manager at CEWASTE. CEWASTE is a project financed by Horizon 2020 and aims to develop a voluntary certification scheme for waste treatment. The project aims at improving the recovery of CRMs for key type of equipment's such as Materials on the CRM list and valuable materials such as Au and Ag. Dr. Deubzer explained that the project will develop, validate and launch a voluntary certification scheme for collection, transport and treatment facilities of key types of waste containing significant amounts of these key CRM equipment. CEWASTE already had 20 audits performed in recycling facilities in Switzerland, Italy, Spain, Belgium, Portugal, Colombia, Turkey and several audits had to be performed virtually due to COVID-19 pandemic

Furthermore, Dr. Deubzer explained that the challenge lies in the relation between users, recyclers and producers. According to him, the challenge in Europe is thus to ensure a sustainable access to valuable and critical raw materials for EU economy. He stated that, in reality, there is a very low recycling rate for most CRMs. Dr. Deubzer believes that, to improve this reality and accomplish the challenge, the EU needs to improve standards for collection and treatment by supporting policy actions, creating a level playing field and supporting environmentally and socially sound recycling systems globally. He concluded his presentation by explaining that the current business practice of recycling CRMs from key CRM equipment is achievable with the current technologies if the economic and legal framework conditions for collection, sorting and treatment are adapted. This conclusion aims at encouraging policymakers to propose high recycling standards, as technology is there to back human efforts.