THEME 2 : Life cycle and recycling of materials

23 June - 10h40 / 12h40

WORKSHOP 1 : RECYCLING AND RECOVERY

This workshop will focus on understanding the complexity of the recycling/recovery relationship and propose solutions to get the best environment/economic value out of a combination of both :

- Characterize the key economic success factors of the recycling and recovery business such as a constant quality of the waste stream, an easy access to the waste at affordable and relatively stable prices, the development of "real" applications/market for recycled products, and transparent data for energy recovery performance.

- Assess the importance and the pertinence of policies and regulations: when are they needed, how can they be most efficient and when they should be stopped with concrete examples arising from the implementation of Producer Responsibility Programs around Europe.

- Give examples of self induced voluntary recycling approaches such as Decathlon's efforts to incorporate more recycled polymers into end products resulting in better cost position for Decathlon and better customer satisfaction (lower price and less CO2 content). Or Magpie's model for capturing precious metal (platinum, gold, iridium…) driven by strong business case due to high value of recovered materials.

- Show the complexity of a combined recycling & recovery business case - this of tires - arising from the tension between needs of waste generators (find end of life solution at lowest cost possible) and ambition of recyclers (get maximum value out of waste stream).

Reading materials :

> Recycling and valorization.pdf

> McKinsey : Are you ready for a resource revolution.pdf

23 June - 14h30 / 16h30

WORKSHOP 2 : ECO DESIGN

Eco-Design is a broad concept that is too often seen as only qualitative and whenever quantitative restricted to only one of its dimensions : the typical example being the traditional focus on the CO2 content of one product.
Other KPIs should be considered such as safety, cost improvements, brand assessment, use of resources, or compliance to norms and regulations.
Also the quest to improve one KPIs often conflicts with the respect of other important KPIs. For example, in mining the will to reduce CO2 emissions can bring an increase in the use of water.

These aspects of Eco-Design will be further discussed in the course of the Eco-Design workshop of the World Materials Forum 2015 : a comprehensive definition will be presented as well as a list of most relevant KPIs by business category. Eventually, concrete examples driven from the speakers experience will be presented on how to manage the conflicting aspects of Eco-Design and optimize the final product.

Reading materials :

> Eco design rules.pdf

> McKinsey : Are you ready for a resource revolution.pdf

24 June - 08h00 / 10h00

WORKSHOP 3 : VALUE CHAIN MANAGEMENT

This workshop will aim at defining a holistic approach for value chain management :

- That encompasses the successive steps of the product value chain, starting from outside (suppliers, customer demand…) then into the company (manufacturing, production efficiency, product performance and recyclability…) and eventually back to the outside (customer satisfaction, government and regulatory bodies, shareholders…).

- With proper monitoring of key success factors that require skills and efforts at the many interfaces within the company and between the company and its environment, which are both technical (performance, quality, overall efficiency…) and organizational (innovation, sustainability, advocacy…).

- While giving a variety of examples of efficient management all along the value chan: either technical (e.g new class of materials half way through polymers and glass called “vitrimers”) or organizational (e.g collaboration-coordination strategies or growing importance of the big data analysis), and inside (e.g product development process) or outside the corporate body (e.g product seen through the eyes of the customer or overall value chart system such as the Aluminum Sustainability Initiative).

- With a specific focus on the importance of the timing of the life cycle (cement vs. semi conductors).

Reading materials :

> Value chain management.pdf

> McKinsey : Are you ready for a resource revolution.pdf