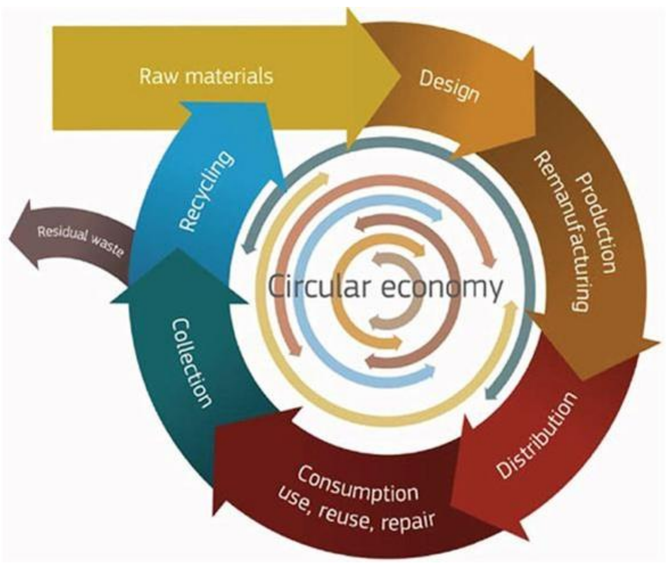
The New Circular Economy Package and Its Possible Impact on Critical Raw Materials

CRM-EXTREME meeting in Burgos, 6-7 October 2016

EU Circular Economy Package is focused on Municipal and Packaging waste but must be considered for CRM



Commission's keywords

- "Closing the loop" of product lifecycles
- Promote recycling and re-use
- Benefits for both the environment and the economy
- Turning industry's by-product into another industry's raw material
- Make products more durable or easier to repair
- Sustainable sourcing of raw materials
- Boosting the market for secondary raw materials
- Encourage recovery of critical raw materials

Possible impacts on CRM's?

- **New business models**
- **Easy to recycle design**
- **Less toxic, less critical materials**
- **Less raw materials**
- **Improved quality**
- **"Clean" tungsten**

Waste hierarchy (Directive 2008/98/EC) is focused on municipal and packaging waste but must be considered for CRM

Waste Prevention: Reduce

- Waste Quantity of waste (reuse, extension of lifespan of products)
- The adverse impacts of the generated waste on the environment and human health
- The content of harmful substances in materials and products

Preparing for reuse: Checking, cleaning or repairing

Recycling: Materials are reprocessed into products

Possible impacts on CRM's?

- **Improved quality**
- **Safe products, no release of toxics**
- **Non-toxic components**
- **Renewing coating**
- **Use recycled materials**

Investigate impacts of all chain links of CRM's life cycle

Basic considerations

- All implications are interconnected
- Positive and negative effects in one part of the chain can reverberate in the other parts
- Minimize the consumption of resources and (non-renewable) energy
- Holistic point of view

Process design for products containing CRM's

- **"Cleaner production"**
- **Improved recycling technologies**
- **New products must enter the markets (economically viable)**
- **Cooperation with industry along the value chain**

Solutions for Critical Raw Materials Under Extreme Conditions (CRM-EXTREME)

WG 4 – Value chain impact

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