THE BENEFITS OF A MODERN CIRCULAR ECONOMY FOR REGIONS, CITIES AND BUSINESS

Brussels, 12 October 2016
Moderator: Richard Tuffs, ERRIN
ELISABETH HAMDOUCH

European Commission
Internal Market, Industry, Entrepreneurship and SMEs
DG GROW
Circular Economy for Process Industry, Norway

- renewable energy based on hydropower
- roadmap for process industry in Norway to become CO2 negative
- R&D programs – recycling hub, bio-carbon & waste to value
- piloting and demonstration facilities
Dr. ULRICH KAMMER
PPM Pure Metals GmbH, Recylex group

Silicon Valley of Recycling
– Secondary Raw Material Center Harz

Secondary Raw Material Center SRZ as an incubator for regional innovations

- Complete technological value chain:
  Raw material treatment, hydrometallurgy, pyrometallurgy
- Implementation in existing industrial areas
- Construction and operation as own company by many partners of REWIMET e. V.
- Target: 350 new direct industrial workplaces in the Goslar region

Supported by Lower Saxony and the federal ministry for economy and energy (BMWi)

Research => Innovation => Workplaces & Raw Materials Security
WIKTOR KOWALCZYK
KGHM CUPRUM – Research and Development Centre
Lower Silesia, Poland
wkowalczyk@cuprum.wroc.pl

Raw materials as an important element of circular economy

- Lower Silesia mining heritage
- Post industrial waste management
- Recycling and reuse of raw materials
Demonstrating the Circular Economy – the ZeroWIN approach

- project demonstrating methods / strategies to eliminate wasteful consumption of resources in industrial sectors via industrial networks
- based on a published overarching vision for Europe
- focus on 2 key waste types in 4 resource-intensive sectors
- all case studies successfully delivered
- details in “Waste and Resource Management”
<table>
<thead>
<tr>
<th>Target</th>
<th>Decrease of 30% GHG emissions</th>
<th>75% reduction of water utilisation</th>
<th>70% of overall reuse + recycling</th>
</tr>
</thead>
<tbody>
<tr>
<td>New construction – UK</td>
<td>58%</td>
<td>43%</td>
<td>93%</td>
</tr>
<tr>
<td>New construction - Portugal</td>
<td>35%</td>
<td>26%</td>
<td>97%</td>
</tr>
<tr>
<td>Refurbishment – Germany 1</td>
<td>19%</td>
<td>14%</td>
<td>78%</td>
</tr>
<tr>
<td>Refurbishment – Germany 2</td>
<td>38%</td>
<td>&gt;100%</td>
<td>85%</td>
</tr>
<tr>
<td>Demolition pre 1950s – UK</td>
<td>&gt;100%</td>
<td>&gt;100%</td>
<td>99%</td>
</tr>
<tr>
<td>Demolition 1950-1980 – UK</td>
<td>&gt;100%</td>
<td>37%</td>
<td>99%</td>
</tr>
<tr>
<td>Demolition - Portugal</td>
<td>&gt;100%</td>
<td>&gt;100%</td>
<td>99%</td>
</tr>
</tbody>
</table>
ACTIVE REGIONAL COOPERATION IN THE CIRCULAR ECONOMY

Q&A
Circular economy and Aalborg

- create local jobs and growth
- reduce dependency on imported resources from outside Europe and increase the local economical turnover
- increase the competitive advantage of the companies
- reduce the local and global impact on the environment and the climate
MEIJE GILDEMACHER
Province of Fryslân, North Netherlands

Circular Friesland

Look at the entire system
- three part analysis
- five promising circular themes
- how it really starts
- organize public support
Circular economy in waste management – a practical approach

- collection of household waste
- separation and recycling into new materials
- communication
- statistics and key figures
- climate accounting
Best Practice Examples from Hamburg:

- “Recycling Offensive”
- innovation in collection systems and logistics
- energy recovery from incineration and organic waste
- new structure of incineration plants
- planning the Centre for Resources and Energy