Value Chain approach to WEEE recycling and recovery of CRM
Challenges of the WEEE Value Chain

- Reported volumes low
- Recycling rates low
- Highly dynamic and complex business environment
- Weight-based targets
- Sub-standard processing
- Little knowledge on availability of CRM
- Illegal trading
The challenges require a holistic value chain approach.
WEEE 2020 Raw Materials Partnership

 Authorities
 Producers
 Academia
 Pre-processors and recyclers
 NGOs & other
WEEE 2020 partnership submitted two projects for H 2020 funding

ProSUM
Prospecting the Secondary Urban Mine

WEEE 2020 greenprint
Value chain redesign for global excellence
Greenprint for system redesign

**Challenge #1:** Low collection rates

**Challenge #2:** Low recycling rates

**Challenge #3:** Lack of level playing field leads to use of low-quality processes

**Challenge #4 & 5:** Market failures prevent innovation & fast product changes relative to slow infrastructure changes
## WEEE 2020 objectives

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<tr>
<th>1. Maximise collection to increase the quality and quantity of materials recovered from WEEE</th>
<th>2. Improve resource efficiency through optimisation of the WEEE System</th>
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<td>3. Develop recycling standards and a certification scheme for quality treatment of WEEE and spent batteries</td>
<td>4. Produce the Greenprint for WEEE System redesign and the exploitation options to deliver it</td>
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Greenprint for system redesign

- A unique resource efficient ‘green’ blueprint to demonstrate (for four product groups) how the current WEEE system can be redesigned and innovated to maximise recovery of materials.
- Focus on valuable materials (including but not exclusively CRM).
- Engineering in detail the future system and the transition needed to get there, including standards and a certification scheme for WEEE and batteries.
- Enabling the EU value chain actors (including the EC) to establish what future technology solutions ‘make sense’ considering best available technologies, economic viability and resource efficiency.
- Cooperation between world leading experts from industry and academia.
- Built with calibrated ‘real world’ operational data.
- Demonstrated and evaluated by trials across the EU.
Greenprint for system redesign

- WP 1 – project management & high level advisory board
- WP 2 – maximize collection
- WP 3 – innovating recycling and recovery
- WP 4 – quality standards
- WP 5 – exploitation
- WP 6 – communication & dissemination

Key dates
- September 2014 - submission for funding
- Decision expected latest 15 Feb. 2015
- Start project Q, if funded Q2 2015
Key impacts

Secured access to raw materials
Reduction in waste generation and resource use
Gains in productivity for WEEE treatment
Reduction of greenhouse gases

Standards
BAT on rigorous techno-economic basis
Replicability and market uptake
Support to technology verification schemes

More sustainable consumer behaviour
Improved innovation capacity
Design for resource efficiency
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