Activities of Anthropogenic Resource Working Group

UNECE
Who we are
Anthropogenic Resource Working Group

14 Members of the Anthropogenic Resource Working Group

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Anthropogenic Resource Classification

Why?

The management of resources requires accurate, reliable and transparent estimates about the future of the world's mineral commodity supply.

Geological Resource Classifications (GRCs) assess the availability of energy and mineral resources, which depends on science and technology as well as environmental, social and economic factors. GRCs are key elements in the project cycle of virtually all large mining operations and thus stand at the beginning of many value chains of modern society. Anthropogenic Resource Classifications (ARC) complement GRCs by estimating the availability of raw materials from secondary sources such as mine tailings, buildings, infrastructure, consumer goods, and all sources from the material life cycle stages, including production, use and end-of-life.

ARC helps government authorities, policy makers, investors and decision makers in the waste management sector to carry out strategic resource planning and make sound judgements on the potential of material sourcing projects.

Who we are

We are the pan European Expert Network on Mining the European Anthroposphere (MINEA) with stakeholders from more than 32 countries. Our aim is to initiate the classification of Anthropogenic Resources.

What we do

We strengthen the European Research Area by:

- Developing standards and guidelines for characterizing, evaluating and classifying Anthropogenic Resources. This includes the collection, comparison and harmonization of practices.
- Providing an interdisciplinary platform for academics, professionals, industrial and government representatives to share research findings and professional knowledge on material recovery and secondary raw material production and supply.
- Supporting the Expert Group on Resource Classification (EGRC) at the United Nations Economic Commission for Europe (UNECE) in developing and promoting the United Nations Framework Classification for Resources (UNFC) with respect to Anthropogenic Resources.

Contact Us

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www.minea-network.eu/outputs
Specification document

- importance of common terminology and definition of terms for a common language
- Living document
- Your comments and proposals are highly welcome
Outreach activities
Anthropogenic Resource Working Group

Attending conferences and organizing a symposium to publicize our activities (since Nov 2018)

- 13th International Conference on Waste Management and Technology, 21.-24. March 2018, Beijing, China
- EGU General Assembly 2018, 8.-13. April 2018, Vienna, Austria
Next conferences in 2018

- Tri-National Workshop with experts from Ministries and Environmental Agencies, 8. Mai 2018, Vienna, Austria
- Resources for Future Generation, 16-21 June 2018, Vancouver, Canada
- 25th World Mining Congress, 19.-22. June 2018, Astana, Kazakhstan
Criteria for selecting case studies

Anthropogenic Resource Working Group

- For purpose of UNFC application
  - Portfolio management of recovery projects
  - Capital acquisition & investment decisions
  - Lessons learned from a completed or ongoing recovery project
  - National resource planning and policy setting

- Scope of the case study
  - Recovery project vs. national level
  - Source vs. commodity approach

- Time: Retrospective, current or predictive
Case Studies and Application Examples performed


- Integrating anthropogenic material stocks and flows into a modern resource classification framework, J. of Cleaner Production, 133, 1352-1362. A. Winterstetter, D. Laner H. Rechberger J. Fellner (2016)
Case Studies and Application Examples performed

Case Studies and Application Examples performed

- Harmonization between national and international classification systems

## Case studies ongoing and planned

**Anthropogenic Resource Working Group**

<table>
<thead>
<tr>
<th>Anthropogenic material source</th>
<th>Product</th>
<th>Location</th>
<th>Facilitator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel slags</td>
<td>Cromium</td>
<td>Belgium</td>
<td>Andrea Winterstetter</td>
</tr>
<tr>
<td>MSWI bottom-ash</td>
<td>Metals</td>
<td>Zurich</td>
<td>Sandra Müller</td>
</tr>
<tr>
<td>MSWI Fly-Ash</td>
<td>Metals, salt, fly-ash</td>
<td>Vienna</td>
<td>tbd</td>
</tr>
<tr>
<td>electrical &amp; electronic devices in passenger vehicles</td>
<td>Scarce &amp; electronic devices</td>
<td>Switzerland</td>
<td>Patrick Wäger</td>
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<tr>
<td>Gypsum boards</td>
<td>Gypsum</td>
<td>European countries</td>
<td>tbd</td>
</tr>
<tr>
<td>Mining residues</td>
<td>?</td>
<td>tbd</td>
<td>Julian Hilton</td>
</tr>
<tr>
<td>Container glass</td>
<td>Glass</td>
<td>tbd</td>
<td>Soraya Heuss</td>
</tr>
<tr>
<td>Sewage sludge</td>
<td>Phosphor</td>
<td>tbd</td>
<td>tbd</td>
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Develop standards and guidelines for the application of UNFC for anthropogenic resources

Training the next generation

- as experts in the evaluation of anthropogenic materials
- as future Competent Persons for the assessment of anthropogenic resources
- Preparation of a proposal for a MC training network
- MINEA Summer School (2019)
Workshop
“Anthropogenic resource and reserves on national level”
17./18. Sept. 2018
In cooperation with MinFuture

Workshop
„Knowledge base for resources and reserves at selected material sources“
24./25. Jan. 2019
Thank you!