establishes a long-term network between the producers/holders and the end-users of Al-rich industrial residues

valorises the Al-rich residues by the production of environmentally friendly high-Al mineral binder based on data from Slovenia, Hungary, and Bosnia and Herzegovina

transfers knowledge from Slovenia, Hungary, and Bosnia and Herzegovina to the whole ESEE region

implements the circular economy and zero-waste management for Al-rich industrial residues in the ESEE region

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**Project Data**

<table>
<thead>
<tr>
<th>Project Duration:</th>
<th>Mar 2019 - Feb 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Budget:</td>
<td>932,355.00 €</td>
</tr>
<tr>
<td>Project Coordinator:</td>
<td>Slovenian National Building and Civil Engineering Institute (ZAG)</td>
</tr>
</tbody>
</table>

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**Project Partners**

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This activity has received funding from the European Institute of Innovation and Technology (EIT), a body of the European Union, under the Horizon 2020, the EU Framework Programme for Research and Innovation.
Huge amounts of various Al-rich residues (steel slag, red mud, ash, landfills of bauxite mines) with a low recycling rate or landfilled in RIS countries present a high secondary mineral resources potential. A promising way of recycling these waste mineral materials is the synthesis of sustainable mineral binders with high Al content, which can be further used as environmentally friendly construction material.

On the other hand, high Al content is the main pain point for the production of Al-rich mineral binders because of the high demand for bauxite, a valuable natural resource. In RIS-ALiCE, this challenge will be successfully overcome by the replacement of bauxite with Al-rich industrial and mining residues. Moreover, this approach will represent an innovative recycling case study for the ESEE region.

Creation of a network of relevant stakeholders in the area of currently unused and landfilled Al-rich industrial residues and contribution to the increase of the innovation potential and competitiveness of the ESEE region. By interlinking local partners, valorising Al-rich residues for innovative mineral binder and creating an upgradeable online registry, we will help enhance sustainable mineral resource management in the ESEE region will be enhanced.

**Goal**

**Motivation**

**Impact**

- **EU** by encouraging circular economy and thus enhancing the raw materials self-sufficiency
- **EIT Raw Materials** through the implementation and promotion of sustainable raw materials management, introducing innovative raw materials recycling approaches to the ESEE region and by setting up and strengthening the networks connecting waste producers and mineral end-users
- **RIS-ALiCE consortium** by creating new business opportunities with focus on advanced and sustainable solutions with a focus on Al-rich residues in an environmentally friendly way

**Contact**

http://ris-alice.zag.si
https://eitrawmaterials.eu/
alice.eit@zag.si