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Resources Innovation Center Leoben

Selected Scientific Activities

GRACE

Critical Raw Materials and Circular Economy. Systemic links with decarbonation and conflicting policy targets.

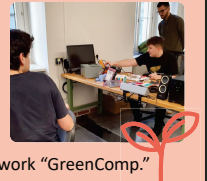


SERIOUS

Serious Games for Industrial Innovation, forges a synergy between game design and industrial engineering to cultivate a new profile: the „Applied Game Designer“.

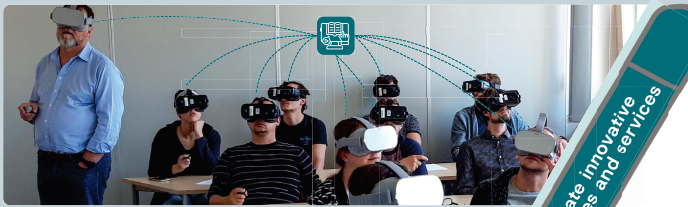
ENVIHEI

ENVIHEI aims to develop and test innovative educational materials to implement green skills in higher education institutions through student-centered learning approaches and to address this unresolved challenge of the EU Competence Framework “GreenComp.”



MiReBooks Mixed Reality Handbooks for Mining Education

In “MiReBooks”, we produce a series of virtual and augmented reality-based (Mixed Reality, MR) interactive mining handbooks as a new digital standard for higher mining education throughout Europe, by combining classical paper-based teaching materials with digital MR materials.



PRO-SLO, Professional „Social Licence to Operate“ PhD School

In response to the increasing demand for critical minerals, the project ‘Professional Social Licence to Operate’ (PRO SLO) unites experts from industry, research, and academia across Europe, to equip current and future leaders in the raw materials sector with the skills necessary to effectively manage SLO processes.



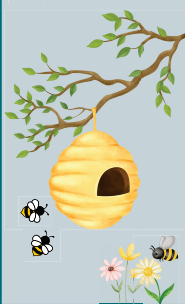
The Climate Puzzle

The interactive and collaborative workshop on the climate crisis is science-based, allowing participants to understand the complexities of climate change. The bottom-up approach encourages critical and interdisciplinary thinking, while boosting team spirit. The knowledge acquired enables participants to be an active part of the climate dialogue and to support and promote climate protection.



Be(e)@MUL

Sensor-equipped bee hives will be installed at the MOSA site to develop a digital twin of the hive system. By combining environmental monitoring, data analysis, and automation, the project supports research on pollinator ecology while raising awareness of biodiversity and sustainable technologies.



RESOURCES
INNOVATION
CENTER
LEOBEN

USE resources effectively
and responsibly

World Climate Game

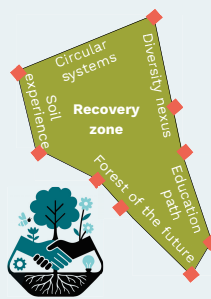
Developed by Weitblick GmbH and operated at Montanuniversität Leoben since 2024, the app-supported simulation board game turns participants into decision-makers. Science-based simulations allow an immersive experience and showcase connectivity between today's social, ecological, and economical challenges.



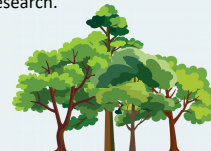
MOSA - Montanuni Outdoor Science Activities

MOSA aims to promote the circular economy through a community education approach which focuses on fostering social cohesion, sustainability, and collective growth, accessible to a wider audience. It thus showcases technology, enables practical learning, and advances active participation in sustainable practices.

SAFE - Sustainable Agriculture and Forestry Experienced



The SAFE Living Lab is a public-private-people partnership interface for creative exchange and participation in societal transformation, where relevant topics are integrated into research.



ReuseMUL

ReuseMUL works with several schools to use unusable textile material to tailor clothing. The collaboration with the students will include awareness-raising activities on the topics of sustainability, climate, and circular economy.



SCoRe A⁺ (Strategic Core Research Area) Hydrogen and Carbon

A strategic research area at Montanuniversität Leoben focusing on hydrogen technologies and carbon utilization for sustainable energy and decarbonization. It covers the full value chain from production to storage and industrial applications.

SCoRe A⁺ (Strategic Core Research Area) Raw Materials

Since the beginning of 2026, the Montanuniversität Leoben has been concentrating its research activities in the field of raw materials in a newly created cluster of excellence, the strategic core research area SCoReA⁺ Raw Materials.

MiReBooks

Mixed Reality Handbooks for mining engineers

MiReBooks combines traditional learning with Mixed Reality to create immersive, hands-on experiences that make complex mining concepts easier to understand, by offering information in a format that new generations are naturally inclined to engage with. **MiReBooks** makes mining studies more appealing and tangible. It helps spark greater interest in the field, equipping students and professionals with the digital skills essential for the future of the raw materials industry.



VOLUME 1

**SUSTAINABILITY IN MINING
MINE PLANNING**



VOLUME 2
SAFETY IN MINING



XR lecturing



VOLUME 3
ROCK FRAGMENTATION



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