

REECOL

Ecological rehabilitation and long term monitoring of post mining areas

Newsletter No. 1

WELCOME to the 1st newsletter of the REECOL European project!

As we embarked on the REECOL European project in July 2023, our goal was clear: to develop innovative technologies and solutions that respect and enhance the ecological value of post-mining areas. This newsletter is your window into this exciting and important journey.

In each REECOL Newsletter issue, we'll share the latest updates on our activities, objectives, and achievements. You'll gain insights into the challenges we face and the breakthroughs we achieve as we explore new horizons in ecological rehabilitation and sustainable technology.

We believe in the power of information and inspiration to drive change. Whether you're closely involved with the project or simply curious about our progress, we hope you'll find value and interest in our updates.

Join us in redefining the future of post-mining landscapes! We are looking forward to sharing our journey with you.

REECOL Team

Shortly about REECOL

The project addresses challenges to coal regions in transition. The project results will serve as a comprehensive aid for rehabilitation of post-mining lands. The research and development actions will be complemented by communication and dissemination activities. These are aimed at building awareness, knowledge, and attitudes among target audiences, which is expected to lead to the future acceptance of the project's results and their subsequent implementation and adoption.

We kindly encourage you to read [Comprehensive overview of the project](#) and learn more about our goals, planned activities and results.

Use the link or QR code for quick access



<http://tinyurl.com/495z86bh>



To ensure high-quality results, **11 partners** from **5 European countries** will collaborate and contribute their expertise:

- ◆ from Poland: ► „Poltegor–Instytut” Instytut Górnictwa Odkrywkowego (the coordinator);
► Główny Instytut Górnictwa; ► Instytut Techniki Górniczej KOMAG; ► Polska Grupa Górnicza S.A.;
- ◆ from Czech Republic: ► Výzkumný ústav pro hnědé uhlí a.s.;
- ◆ from France: ► BRGM Bureau de Recherches Géologiques et Minières; ► Valorhiz SAS;
► Ineris Institut national de l'environnement industriel et des risques;
- ◆ from Slovenia: ► Premogovnik Velenje d.o.o.;
- ◆ from Greece: ► Dimosia Epicheirisi Ilektrismou AE; ► Polytechnio Kritis.

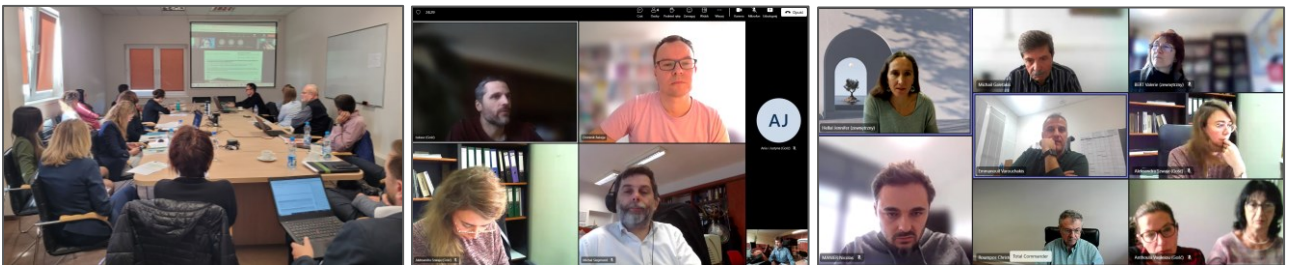
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What's going on in the project

The partners' meetings

The REECOL project kick-off meeting was held on 5-6 OCT 2023. The meeting was hosted by the project coordinator Poltegor-Institut at their facility and online. Since then, online meetings took place on 23 NOV 2023 and 08 DEC 2023, to discuss current and future tasks.



Work on the results

A drone for monitoring green areas, including the calculation of the NDVI index, has been purchased and tested. This will be crucial for observation and evaluation of the reclamation progress of mining heaps, in the project.



Designers from KOMAG work intensively on the development of a new technology of contactless soil remediation. The concept of the technology assumes, among others, to use the idea of multi-phase aerosol spraying and new spray nozzle solutions.

Development of a technology for soil regeneration using composts of high biological activity is among the project objectives. A unique compost mixture of lignite, solid organic waste, and selected highly active microorganisms is to be used to restore the soil health. Poltegor-Institut team is preparing necessary equipment and gathering essential materials like chicken feathers, straw, and coal from the Konin Brown Coal Mine.



<https://reecol.komag.eu/news/>

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Get some knowledge...

Restoration, rehabilitation, remediation, reclamation are often referred to as **R4**.

You may encounter many different definitions of them – in online in scientific literature, government reports and policy documents. These definitions may be more or less vague and/or overlap. Below we present some of them.

'Restoration' refers to situation where the landscape and ecosystems are returned to their original shapes and composition, whereas **'remediation'**, **'reclamation'**, and **'rehabilitation'** refer to measures that alleviate the problems, but may create landscapes and ecosystems that are different from the original situation.

Rehabilitation: returning the land to a form and productivity in conformity with a prior land use plan, including a stable ecological state.

Restoration vs Rehabilitation. Restoration attempts to return vegetation to its original state, while rehabilitation acknowledges that vegetation will be permanently altered, but seeks to return a self-sustaining native plant community that is as close to the original as possible. So in case of rehabilitation we obtain enhanced but not restored native habitat and with restoration we obtain locally native ecosystems.

Remediation: the removal, reduction, or neutralization of substances, wastes or hazardous material from a site to prevent or minimize any adverse effects on the environment now or in the future

Reclamation: the process of making severely degraded land (e.g., former mine sites or wastelands) fit for cultivation or a state suitable for some human use.

References: <http://tinyurl.com/pxyjhz89>
<http://tinyurl.com/3uhbe4me>
<http://tinyurl.com/e7z3wn55>

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