

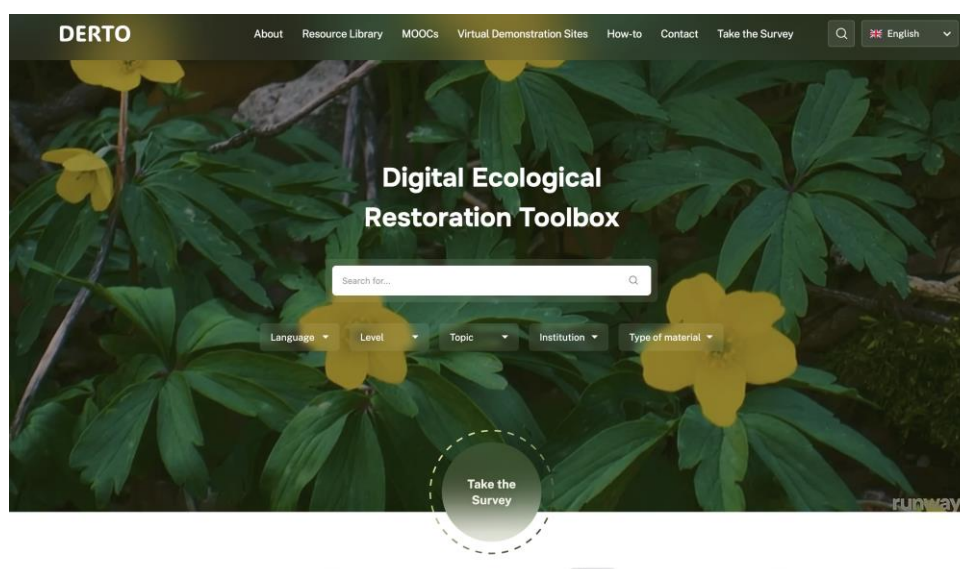


TEAM#UP Newsletter, Edition #4, June 2025

And we have lift off! DERTO launched as a New Hub for Educational Resources for Ecological Restoration

The TEAM#UP project is pleased to announce the launch of **DERTO – the Digital Ecological Restoration Toolbox**, now available at <https://derto.teamup2restore.eu>. Currently hosted by TEAM#UP during its development phase, the platform will be transferred to SER-Europe for long-term stewardship at the project's conclusion, ensuring its continued growth and accessibility.

What sets DERTO apart is its exclusive focus on ecological restoration skills training for vocational education and continuing education programs. Designed with educators and learners in mind, DERTO offers a wide range of practical, high-quality resources that bring ecological restoration to life in the classroom and beyond.



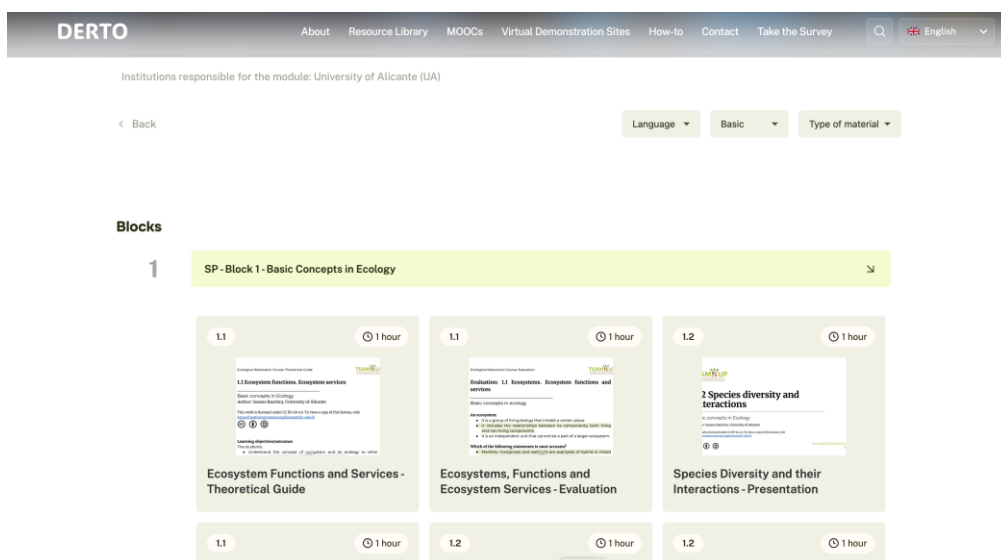
Hands-On Learning for Restoration

DERTO supports rich, practice-oriented learning in Ecological Restoration (ER). Students are introduced to essential field skills, such as site assessment, project planning, first-year site management, monitoring and evaluation, and species introductions. Key ecological topics are also covered, including biodiversity, ecosystem services, plant succession, habitat connectivity, and relevant environmental legislation.

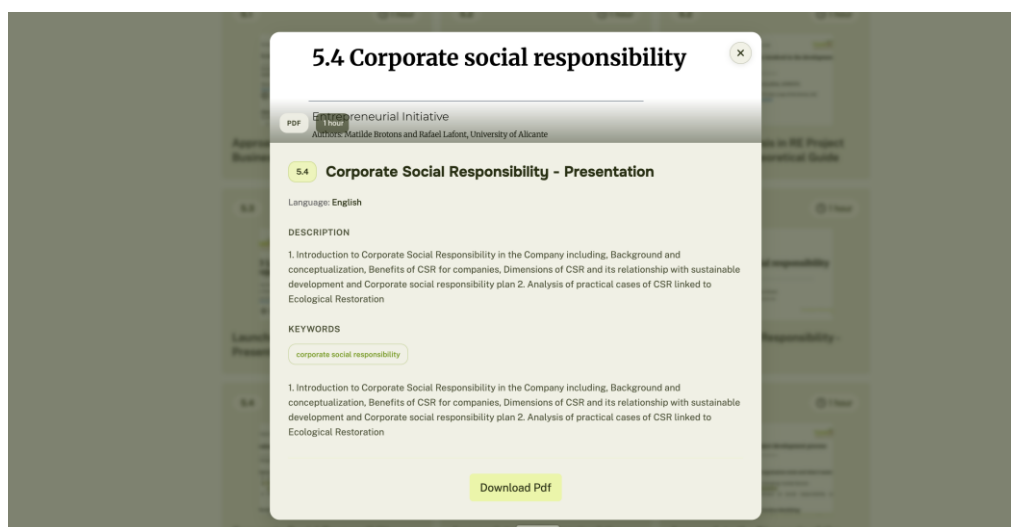
Beyond ecological knowledge, DERTO emphasises the development of **digital competencies**. Learners are guided in using tools like LUMI to create interactive educational content and immersive 360° Virtual Reality tours. Used in combination or individually, these elements help prepare students for diverse roles in the rapidly evolving green workforce.

Flexible, Engaging Resources for Educators

DERTO's resource library is designed to support flexible, engaging instruction across learning environments. **Downloadable teaching materials**, including lesson plans, educator guides, and case studies will assist VET providers in upskilling students on the basic principles of Ecological Restoration. More extensive resources in a number of formats will be available over the course of the TEAM#UP project.



The screenshot shows the DERTO Resource Library interface. At the top, there is a navigation bar with links: About, Resource Library, MOOCs, Virtual Demonstration Sites, How-to, Contact, and Take the Survey. Below the navigation bar, it says "Institutions responsible for the module: University of Alicante (UA)". There are filters for Language (English), Basic, and Type of material. Under the "Blocks" section, there is a list of resources. The first block is "SP - Block 1 - Basic Concepts in Ecology". Below this, there are three resource cards, each with a title, a description, and a "1 hour" icon. The first card is "Ecosystem Functions, Ecosystem Services - Theoretical Guide". The second card is "Ecosystems, Functions and Ecosystem Services - Evaluation". The third card is "Species Diversity and their Interactions - Presentation".



These tools provide educators with ready-to-use content that supports green skills delivery and fosters applied, meaningful learning experiences.

Looking Ahead

The TEAM#UP project will continue to refine DERTO through an iterative, community-driven process. A user survey is currently underway, and feedback will be analysed to guide platform improvements. Updates will be integrated by **December 2025**, with new content added on a rolling basis to keep DERTO current, practical, and aligned with the evolving needs of ecological restoration education.

Explore the platform and its resources at <https://derto.teamup2restore.eu>.

VET STUDENT EXCHANGE – International Course on Restoration Ecology for Vocational Schools

With thanks to Klára Řehounková for this article.

In early May, the Restoration Ecology Working Group at the Department of Botany, Faculty of Science, University of South Bohemia, held a week-long intensive course that guided VET students from Spain, Germany, the Czech Republic, and Norway through the theoretical and practical aspects of the rapidly developing field of restoration ecology. Preparations for the exchange began in each country already in autumn. During this time, the students also developed their own projects, and the best ones came to present and defend them during the exchange. The aim of the meeting in the Czech Republic was to increase education in the field of ecological restoration among a group of students who are implementing a number of measures in practice. With the recent adoption of the European Nature Restoration Regulation, it is clear that knowledge transfer is key to high-quality habitat restoration.



Photo: Thomas Engst

The students spent the first three days in the Czech Republic and took part in a day focused on the restoration of meadows in the countryside and in cities, as these are among the most endangered habitats across Europe. In addition to lectures, they had an opportunity to go through all the stages of restoring a species-rich meadow and try everything out in practice, from identifying suitable source vegetation, obtaining seeds and analysing what can be found in the collected material, to preparing the area, sowing, and evaluating the success of the restoration. Despite the unfavourable weather, the students

were able to try out the various methods and activities in an improvised way. We also used the Faculty garden, where we continued with teaching using specific examples, and in the evening, we moved to the city for further measures, such as flowering strips.

The next day was devoted mainly to urban ecology, the restoration of mining areas, and the entire landscape. After a theoretical introduction, we went on an excursion to the Třeboň region and saw how spontaneous succession works in sand pits, which can even turn into small-scaled specially protected areas. In the Novohradské Mountains, we learned about landscape modifications in agricultural areas. On Wednesday, we set off to visit our colleagues in Bernburg, Germany and on the way we managed a short excursion to restored old orchard in Prague called Třešňovka, and a brief explanation and a view of the extensive ČSA quarry, which is at the beginning of a long journey to become the most extensive ecological restoration project in the Czech Republic. Before leaving the Czech Republic, we stopped to look at the Radovesická spoil heap to see how quickly the abandoned area overgrown with trees. Also, the importance of open sites for a number of specialized species was stressed and the possibilities of their maintenance only by human activity (especially during motocross).

The following day, our colleagues from Hochschule Anhalt showed us how they approach restoration in the agricultural landscape in Germany. We visited a farm that produced regional plant seeds, tried out vegetation mapping on restored salt marshes, learned about the pitfalls of grazing, experienced close contact with a herd of horses, learned to identify rare field weeds and found out about their protection and re-introduction to the landscape, and saw flowering strips and colourful flowering field margins to promote biodiversity.

At the end of the course, the students summarized what they had learned during the course in short presentations and presented and defended their projects. Next spring, another international student exchange on ecological restoration will take place in České Budějovice, this time focused on university students, and in the autumn, a student exchange in Norway on landscape restoration will follow with both VET and university students.

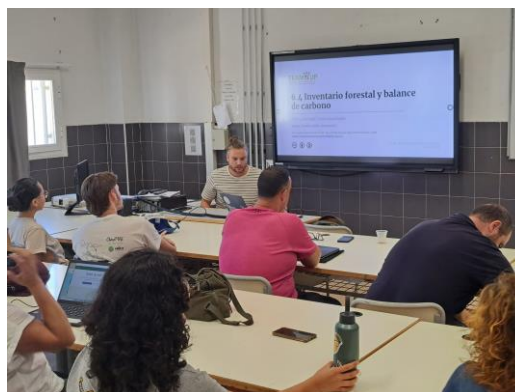
Advancing Ecological Restoration Education at IES El Palmeral

As part of the TEAM#UP project and our ongoing commitment to sustainability and innovation, IES El Palmeral recently hosted a two-day advanced training session on ecological restoration, blending expert-led instruction with cutting-edge digital tools.



From 26–27 May, students and educators engaged with top professionals in the field:

- Jordi Cortina-Segarra (University of Alicante) explored soil characterisation as a foundation for restoration success.
- Antonio Guillén (Biocyma) emphasized sustainable forest management through carbon balance and inventory techniques.
- Pablo Ascasibar (Agresta S. Coop.) demonstrated the use of drones, LiDAR, QGIS, and GNSS in ecosystem monitoring.
- Juan Román Patiño (IES El Palmeral) introduced 360° virtual tours to enhance environmental education and outreach.



This co-teaching initiative reinforced the value of multidisciplinary collaboration and prepared students to tackle real-world restoration challenges with both scientific and technological expertise. The event reflects IES El Palmeral's dedication to academic excellence and its active role in contributing to global ecological restoration efforts.

POLICY MEETS PRACTICE at the Technical College for Agriculture in Haldensleben

On February 6, 2025, the Fachschule für Landwirtschaft Haldensleben hosted a workshop led by experts from the German Agricultural Society (DLG), focusing on integrating ecological restoration into vocational education.



Key Highlights:

- **Policy Insights:** DLG experts provided an overview of European and German agricultural policies, including the EU Green Deal, Farm to Fork Strategy, and the Nature Restoration Regulation. They discussed how these policies influence farming practices and the importance of integrating nature conservation into agriculture.
- **Interactive Workshops:** Students participated in two groups: one focusing on animal farming and the other on plant production. Using VR technology, students explored modern livestock farming practices and discussed topics like the "Bundesprogramm Umbau der Tierhaltung" (National Program for the Restructuring of Animal Husbandry) and direct marketing options.
- **Practical Applications:** In the plant production group, students applied tools like the Harmonised Risk Indicator (HRI) to their own crop rotation examples, assessing pesticide use and discussing sustainable alternatives.

This initiative exemplifies the TEAM#UP project's commitment to equipping vocational students with the knowledge and tools to promote biodiversity and sustainable agriculture.

TEAM#UP Heads to SER2025 in Denver, Colorado

We're excited to announce that TEAM#UP will participate in the Society for Ecological Restoration's 2025 World Conference (SER2025) in Denver, Colorado. This global gathering brings together restoration professionals, researchers, and educators to share knowledge and drive forward ecological restoration worldwide.

TEAM#UP will present how its 15-partner initiative is advancing ecological restoration in Europe by developing vocational training curricula, hands-on and digital learning resources, and international collaboration—culminating in an open-access Digital Ecological Restoration Toolbox. It's a key opportunity to showcase the project's impact, reach far beyond the European context, build new partnerships, and contribute to the global conversation on restoring ecosystems for a sustainable future.

Stay tuned for updates from Denver as we connect with the international restoration community!

Thank you for being part of the journey!

The launch of DERTO marks an exciting milestone, but it's just the beginning. The TEAM#UP project is committed to supporting educators, learners, and the broader ecological restoration community with innovative, high-quality resources.

Stay connected with us as we continue to expand, refine, and share new tools and insights. Together, we're building a stronger foundation for green skills education—and a more sustainable future.



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the European Union**

TEAM#UP is an Erasmus+ project for sharing knowledge, tools, education and resources in ecological restoration for different communities in Czech Republic, Germany, Norway and Spain. This is a four-year project running from 15 June 2023 to 14 June 2027. TEAM#UP serves as a reference point for the incorporating educational and skills training of ecological restoration activities for secondary vocational schools, with the involvement of universities, and practical partners, facilitating the transition to a greener and more climate-resilient society.

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