

GREENPOL - Centre of Excellence in European Green Deal Policies

**Erasmus+ Jean Monnet Centre of Excellence project
No. 101127382**

Project implementation phase – summary

During the third year of implementation, the GREENPOL Jean Monnet Centre of Excellence continued to make significant progress across all project work packages, delivering key educational, research, and dissemination activities. Within work package 1, the project coordinator monitored the implementation of activities carried out between 1 November 2024 and 31 October 2025. The results of the monitoring

campaign were compiled into a comprehensive report and submitted to the European Commission.

Work package 2 focused on strengthening doctoral education. Three doctoral courses were successfully updated and delivered during the summer semester of the 2025/2026 academic year. Developed by experts in European policies, nutrition, health, and

renewable energy, the new teaching materials are now available to students through the LMS Moodle online platform.

Research activities formed the core of work package 3. GREENPOL researchers investigated topics ranging from the occurrence of selected organic pollutants in wildlife to the contribution of Jean Monnet Centres of Excellence to developing competencies for the green transition and preparing future experts for a climate-resilient Europe. These efforts resulted in four scientific outputs. The paper “Strengthening Green Deal Competences in Higher Education: Insights from the GreenPol Centre of Excellence” was accepted for the INTED2026 Conference and published in its proceedings. Another article, “The Occurrence of Polychlorinated Hydrocarbons in Red Fox (*Vulpes vulpes* L.) in South-western Slovakia”, was published in the Journal of Environmental Science and Health, Part A. In addition, the abstract “Sea Buckthorn (*Hippophae rhamnoides* L.): A Versatile Agricultural Plant in the Treatment of Diabetic Cataracts” was published in the Book of Abstracts of the 61st Croatian and 21st International Symposium on Agriculture (SA 2026), dedicated to Smart and Resilient Agriculture – Safety for Future Generations. Finally, the article “Visualization of economic and social trends in regions of the V4 countries” was presented at the international conference Sustainable Development XVI.

As part of work package 4, GREENPOL organised the roundtable discussion "Renewable Energies for Sustainable Development", bringing together representatives from academia, the business sector, public institutions, and non-profit organisations. The event provided a valuable platform for exchanging experiences, discussing current challenges, and promoting cross-sector cooperation in support of sustainable development and the green transition.



Project implementation – teaching

During the summer semester of the 2025/2026 academic year, three innovated doctoral courses developed within the project were successfully delivered. The courses focused on key topics supporting the objectives of the European Green Deal (listed with codes from the Course Catalogue):

- 1) **PHD_U055_N – EU Energy Policy** – addressing the long-term challenges arising from EU environmental and energy policies;
- 2) **PHD_M109_N – Renewable energies for sustainable development** – exploring renewable energy solutions in the context of the current energy crisis and the transition to sustainable energy systems;
- 3) **PHD_P323_N – Environmental Nutrition and Health** – examining the interconnections between agriculture, food systems, the environment, climate, nutrition, and human and animal health, with an emphasis on sustainable food production and improved public health.

The courses were attended by 10 doctoral students (5 full-time and 5 external students) representing three faculties of the Slovak University of Agriculture in Nitra: Faculty of European Studies and Regional Development (2 students), Faculty of Biotechnology and Food Sciences (4 students), and Faculty of Engineering (4 students). Students successfully completed all three courses.

Teaching was delivered in a blended learning format, combining face-to-face instruction with self-study through learning materials available on the LMS Moodle platform. This multidisciplinary approach enabled students to explore the challenges of the European Green Deal from different scientific perspectives while benefiting from the expertise of academics from several faculties.

At the end of each course, students completed an online assessment through Moodle and provided valuable feedback on the course content, learning experience, and future educational needs. Their responses will contribute to the further development and continuous improvement of the GREENPOL educational offer.

Project implementation – research

Members of the Centre of Excellence implemented **research activities** in several areas, resulting in three expert articles. One has been published in a renowned scientific journal, another in a conference proceedings, and the third has been accepted as the abstract:

- the article „***The Occurrence of Polychlorinated Hydrocarbons in Red Fox (*Vulpes vulpes* L.) in South-western Slovakia*** “ was prepared by an international scientific team led by Professor Marcela Capcarova from the Faculty of Biotechnology and Food Sciences, SUA in Nitra. It was published online on 27 January 2026 in the Journal of Environmental Science and Health, Part A: Toxic/Hazardous Substances and Environmental Engineering. Article available at: <https://www.tandfonline.com/doi/full/10.1080/10934529.2026.2620265#abstract>;
- the article „***Strengthening Green Deal Competences in Higher Education: Insights from the GreenPol Centre of Excellence***“ was prepared by Centre of Excellence members under the leadership of Professor Zuzana Palkova from the Faculty of Engineering, SUA in Nitra. The article presents the project’s rationale, pedagogical design, interdisciplinary methodology, digital learning tools, and expected impact on higher education, research capacity, and regional sustainable development. Abstract available at: <https://library.iated.org/view/PALKOVA2026STR>;



- the article **“Visualization of economic and social trends in regions of the V4 countries”** was prepared by the research team led by Professor Pavol Schwarcz for the international conference Sustainable Development XVI: Europe Without Borders: Challenges for Global and Internal Security of the EU, hosted by the College of European and Regional Studies in České Budějovice, Czech Republic. The article will be included in the conference proceedings which will be published in fall 2026;
- the abstract **„Sea Buckthorn (*Hippophae rhamnoides* L.): A Versatile Agricultural Plant in the Treatment of Diabetic Cataracts”** was prepared by the research team led by Professor Marcela Capcarova from the Faculty of Biotechnology and Food Sciences, SUA in Nitra. The aim of the study was to analyse the interaction between diabetes mellitus II. type (DM2T) and supportive treatment with sea buckthorn berries (SB) (*Hippophae rhamnoides* L.), which has historically been cultivated in the Slovak Republic as a traditional agricultural plant used in households and in folk medicine. Abstract available at: <https://sa.fazos.hr/wp-content/uploads/2026/07/SA2026-Abstracts.pdf>.

As part of the GREENPOL project’s research activities, on 15-18 October 2025, Professor Pavol Schwarcz with the team of researchers participated in the international conference Sustainable Development XVI: Europe Without Borders: Challenges for Global and Internal Security of the EU, hosted by the College of European and Regional Studies in České Budějovice, Czech Republic.

Project implementation – events

On 9 March 2026, the GREENPOL Centre of Excellence organised a roundtable discussion entitled **“Renewable Energies for Sustainable Development”**. The event brought together 16 participants,



including Centre of Excellence members, academic staff of the Slovak University of Agriculture in Nitra, and representatives of cooperatives, clusters, agricultural companies, public institutions, and the non-profit sector.

Organised by members of the Centre of Excellence from the Faculty of Engineering, the roundtable provided an opportunity to exchange knowledge and experience on the role of renewable energy in sustainable development. The event opened with an introduction to the GREENPOL project, presenting its concept, objectives, work plan, and implementation approach.

The expert discussion then focused on the energy chain and renewable energy production. Participants were introduced to the main types of renewable energy and their key characteristics, with particular attention given to solar, wind, geothermal, and hydropower. The discussion subsequently explored solar energy systems and biomass, with special emphasis on the potential of biomass as an energy source.

Figure 1: International conference Sustainable Development XVI in České Budějovice, Czech Republic



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SUA
Slovak University
of Agriculture
in Nitra

An important part of the discussion addressed the national and European legislative framework for renewable energy and its implications for sustainable development. Particular attention was paid to the role that renewable energy can play in supporting the sustainable development of rural areas, where local energy resources and innovative solutions can contribute to greater resilience and sustainability. The roundtable thus provided a valuable platform for connecting academic expertise with perspectives from the agricultural, public, business, and non-profit sectors, while promoting dialogue on practical solutions for the green transition.



Figure 2 and 3: Roundtable debate “Renewable Energies for Sustainable Development”

News in the field of Renewable energies

Renewables make up 26% of EU energy use

Provisional data for 2025 show that the share of energy from renewable sources in gross final energy consumption in the EU reached 26.2%, up from 25.2% in 2024. The share has been rising since the time series began in 2004 (9.6%). However, there is still progress to be made, as the EU’s 2030 renewable energy target is 42.5%. Achieving this target would require an annual average increase of 3.3 percentage points (pp) from 2026 to 2030.

When it came to gross electricity consumption in the EU, renewable energy sources accounted for 49.9% in 2025, representing a 2.4 pp increase from 2024. For comparison, the share stood at 15.9% in 2004, when the time series began.

More information at:

<https://ec.europa.eu/eurostat/en/web/products-eurostat-news/w/ddn-20260723-1>

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