



Twinning initiative: Soil-Plant Bioremediation Conference in Leipzig

Dnipro University of Technology (Ukraine) and Lancaster University (United Kingdom) were twinned in June 2022 as part of the Twinning Scheme, coordinated by Cormack Consultancy Group and Universities UK International and designed to facilitate collaboration and partnership between UK and Ukrainian universities, specifically addressing their research and innovation needs.

The conference “**Soil-Plant Bioremediation**” in Leipzig was a powerful start of the strategic cooperation between Dnipro University of Technology and Lancaster University. The conference was held at the campus of Lancaster University in Leipzig (Germany) on **July 4-5, 2023**. Within two days, British and Ukrainian researchers presented current achievements and shared practices in the field of reclamation and phytoremediation of disturbed and contaminated lands that is quite important for the after-war restoration of Ukraine. The conference and collaboration were made possible by funding from Universities UK International.

Conference workshops focused on topics such as the ecological restoration of war-degraded soils, the main drivers of soil degradation in Ukraine, and building resilience in agricultural soils. Plant-Soil is of critical importance to crop production in Europe, and a global priority of ecosystem recovery. Over the two-day conference, researchers explored and discussed how to work to address current soil restoration challenges in Ukraine, shared research findings, and took the opportunity to network and identify potential areas of collaboration and areas of mutual interest.

In general, the conference promoted the opportunities for the unification of scientists from partner Universities towards finding common ideas and innovative projects for the restoration of the Ukrainian lands affected by war.



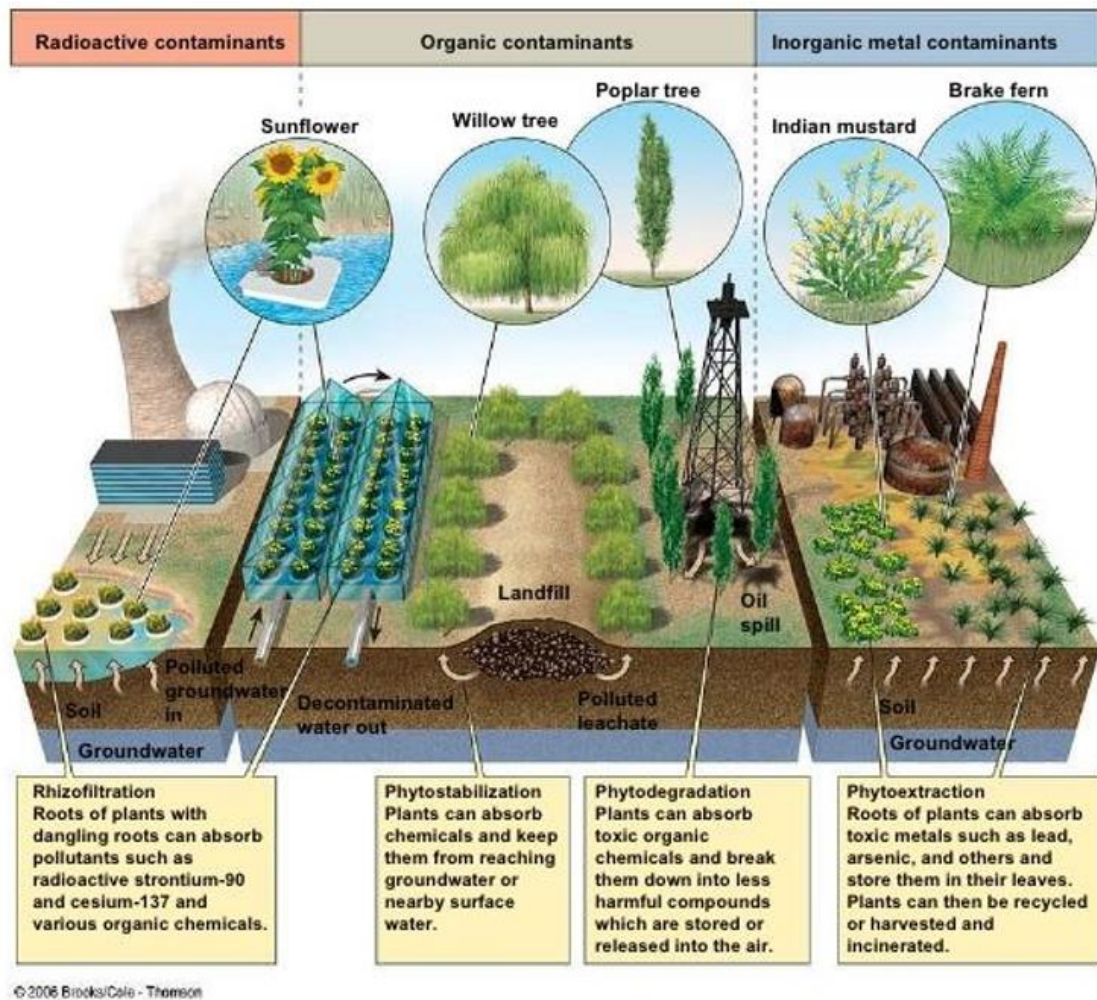
The conference was attended by scientists and experts in the field of biological remediation from Dnipro University of Technology, as well as from other universities of Ukraine: Dnipro State Agrarian and Ecological University, Ukrainian State University of Science and Technology, Sumy State University, State Institution “Scientific Center for Aerospace Research of the Earth Institute of Geological Sciences” of the National Academy of Sciences of Ukraine.

Guests including multidisciplinary students, postdocs and staff from both Twinning Universities also joined the sessions online to present their work.



At the plenary session of the Conference, Professor Nick Ostle (Lancaster University) and Professor Oleksandr Kovrov (Dnipro University of Technology) made interesting presentations focused to modern ecological technologies of phytoremediation for degraded lands, which is relevant in the context of Ukraine's post-war reconstruction strategy.

Phytoremediation is a cost-effective and environmentally friendly approach to clean up contaminated soil, water, and air using plants. These eco-technologies are distinguished by the unique features of restoring the environment in the most ecological way, carrying out biodestruction of organic pollutants or hyperaccumulation of heavy metals or radionuclides from soils.



Also, experts presented interesting reports on unique plants that can accumulate heavy metals from environment and restore damaged landscapes. Such a phenomenon is called hyperaccumulation, which expands the possibilities of application of plant communities for the purpose of biological reclamation of soils, rock dumps, landfills, etc.

In general, the conference created the prerequisites for the unification of Ukrainian and British scientists with the aim of finding common ideas and innovative projects for the land reclamation. It is hoped going forward the collaboration between the two universities will develop joint research proposals and work towards ideas generated during the event.

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