



**ContaminatEd land Remediation
through Energy crops for Soil Improvement
to liquid biofuel Strategies**
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PRESS RELEASE

First year meeting of the EU research project CERESiS

11-12 November 2021

The CERESiS (ContaminatEd land Remediation through Energy crops for Soil improvement to liquid biofuel Strategies) consortium partners have virtually met the 11th and 12th of November 2021 to celebrate the successful completion of the project's first year. The main objective of this internal meeting was to perform a follow up of the project and define the next steps in order to achieve its success. All consortium partners have had the chance to show the project progress and coordinate the next steps.

About the project

CERESiS involves academia, industry, organizations, institutes and SMEs in a joint effort to tackle the indirect land use change (ILUC) risk while producing biofuels, as well as the fact that - at the same time - significant contaminated land areas remain unused. The project aims to provide a win-win sustainable solution to both issues by facilitating land decontamination through phytoremediation, i.e. growing energy crops to produce clean biofuels.

To reach this goal, CERESiS develops a decision support system for stakeholders and policy makers that will take into consideration all the critical parameters affecting the best choice of energy crops, the most appropriate cultivation and harvesting methods, conversion and separation technologies and supply chain design. This tool will propose optimal pathways for each individual case of site, area, region or country for stakeholders wishing to produce biofuels while decontaminating land.

The CERESiS project, due for completion in 2024, consists of a consortium made up of partners from five EU countries, Ukraine, Brazil and Canada, including four leading European Universities and two international ones, two research centres, one large industry, one SME and two NGOs. The consortium expertise covers the entire value chain and addresses all project requirements, demonstrating the inter-disciplinary approach adopted.

First year progress

During the first year of CERESiS, significant progress has been made in all of the project's components, despite the COVID-19 pandemic.

In terms of the **phytoremediation pillar**, biomass has been planted in 12 different locations in the UK, Italy, Ukraine and Brazil. Together with samples from existing sites this includes 11 different plant species. So far, these contaminated and brownfield sites include former metal mines, oil refineries, coal ash/landfills, shipyard/railway land and agricultural land impacted by pesticide manufacture or use, PCBs or tannery effluents. Eight bulk samples of contaminated biomass from the existing sites have been collected and prepared for treatment, including both organic and inorganic contaminants, while some of our planted sites are being harvested.



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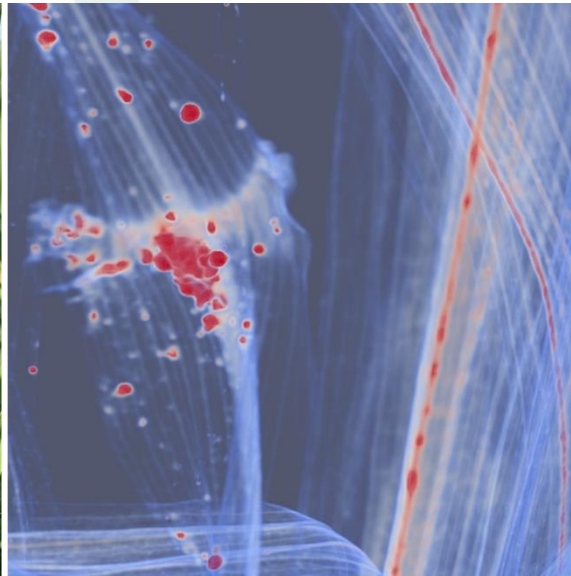
In terms of **technologies**, the decontamination and separation requirements to remove the contaminants from the end product have been defined. The first experiments in Supercritical Water Gasification have been performed. Regarding the pyrolysis technology, the new laboratory scale equipment has been recently received and will soon be operational, starting the experiments.

Regarding the **overarching work**, existing approaches for characterization of contaminated land have been investigated, as well as the related regulatory and policy framework.

Finally, in terms of the **Decision Support System** development, the first attempt to define the user requirements has been made providing valuable insights into different requirements and perspectives. The user requirement definition process is ongoing with further engagement of potential end users.



A photo of the *Phalaris arundinacea* (reed canary grass) that was grown in the fields of the University of Tuscia – Viterbo experimental farm.




X-ray computed tomography (XCT) by the University of Strathclyde to gain a better understanding of the location and nature of contaminants within plants.

For further information

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 CERESiS project

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