

InteGRated systems for Effective
ENvironmEntal Remediation



greener

NEWSLETTER

Issue 3, July 2021

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The GREENER project
has received funding
from the European
Union's Horizon 2020
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No. 826312

1. GREENER MEETINGS



CONSORTIUM MEETINGS

UNIVERSIDAD DE BURGOS | ICCRAM | 24M review meeting May 7th 2021

GREENER Project H2020 had the 24M review meeting on May 7th 2021 in the presence of the project officer and the monitors, to present the main outcomes, challenges and upcoming steps throughout the project WPs.

1. GREENER MEETINGS



GREENER Project H2020 had its 24M meeting on 13-14 April 2021. GREENER partners working together across different WPs have gathered together to discuss the progress made so far, any deviations of work according to the initial plans and the next actions to be taken by the consortium

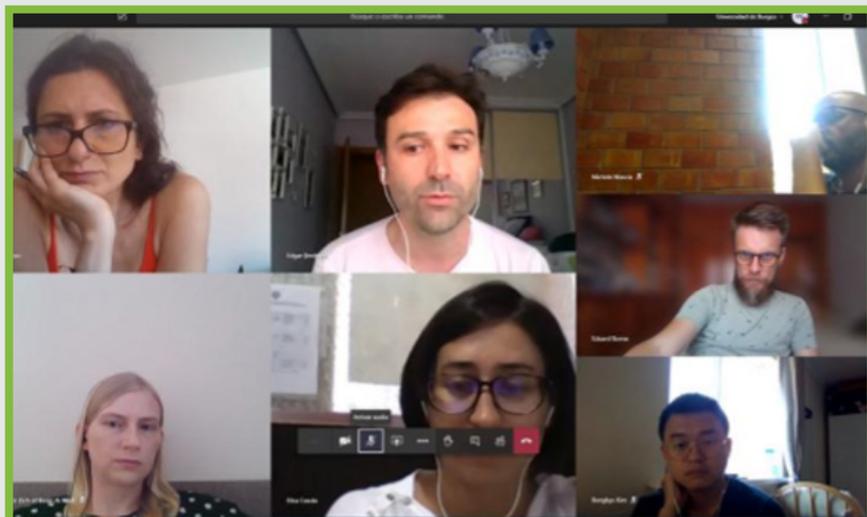


On November 3-4 the 18M consortium meeting of the GREENER Project H2020 took place online, gathering all European partners. During day 1 of the meeting, the characterisation of the selected contaminated sites was discussed followed by the description of the Remediation Technologies Development for Surface Water and Groundwater, as well as Soil/sediment techniques. On Day 2 the Technology scale-up and field testing was presented as well as the activities related to Impact Evaluations and Promotion and Exploitation of the project's Results.



A full consortium workshop was held online on 16 June 2021. Partners discussed about their progress, aiming also to connect the different GREENER technologies, define a collaborative working plan between the consortium and agree on any modifications of the planning needed due to COVID-19 situation.

1. GREENER MEETINGS



Monthly BioElectrochemical Systems group meetings are organised regularly by the GREENER consortium online. Partners, including University of Bath, UBU, LEITAT and University of Surrey and University of Cagliari, discuss on their collaborations and future action points, aiming to the successful implementation of the project.



Regular technical meetings on ecopiles are also organised within the context of GREENER Project H2020 activities. The meetings are held between Institute of Technology, Carlow, SDAS, QUST and UBU, with the aim to discuss on the achievements related with the ecopiles and how to organize the collaboration for the following months.



2. CONTAMINATED SITES



GREENER Project partners are currently making important progress in the different innovative and sustainable technologies to be tested with the 13 samples obtained from the different polluted sites.

These sites, which include different sample types such as soils, water or sediments, belong to different places that are located in different countries in Europe and in China.

The contaminants identified on the sites are representative of those that have a significant impact in the European territory (hydrocarbons, toxic metals and metalloids, antibiotics, pesticides, azodyes, and/or their complex mixtures).



3. SOCIAL ACCEPTANCE SURVEY



SURVEY

AXIA Innovation has developed a survey aiming to monitor the social acceptance of the Project outcomes. The survey is addressed to the wider public and is one of the activities foreseen under the GREENER EU project.

Please take a few minutes to take this survey. Your data will be treated anonymously and confidentially.



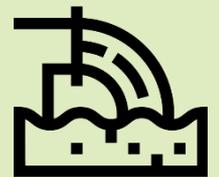
With this survey, we aim to collect your views on the challenges and chances of the GREENER technologies and concept!

4. PUBLISHED WORK



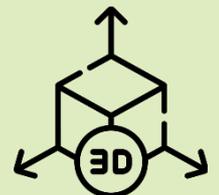
Joint publication by **Institute of Technology, Carlow, MicroGen Biotech** and **Universidad Autónoma de Madrid**, for their work performed under the GREENER Project H2020. The new publication of the article: *"Soil Microbiome Structure and Function in Ecopiles Used to Remediate Petroleum Contaminated Soil"*, was published in *Frontiers in Environmental Science*, section Toxicology, Pollution and the Environment.

University of Surrey has published their work on *"Tertiary treatment of real abattoir wastewater using combined acoustic cavitation and ozonation"*, at *Ultrasonics Sonochemistry*.



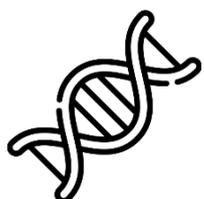
GREENER Project H2020 partners **University of Bath** and **Università degli Studi di Cagliari** have just published their work performed under GREENER project on *Electrochimica Acta* Journal. Take a look at their interesting publication: *"Modelling the influence of soil properties on performance and bioremediation ability of a pile of soil microbial fuel cells"*

GREENER Project partners **Università degli Studi di Cagliari** and **LEITAT Technological Center** have already published their work on *"3D modelling of bioelectrochemical systems with brush anodes under fed-batch and flow conditions"* in the *Journal of Power Sources*.



GREENER Project H2020 partner **Universidad de Burgos** has shared their work titled: *Ornamental plants for the phytoremediation of heavy metals: Present knowledge and future perspectives*, that was published in the *Environmental Research Journal*.

New open-access publication in the *Journal of Power Sources* by **LEITAT Technological Center**. The publication deals with *voltage balancing in stacked BES reactors. A key point for successful technology scale-up*.



GREENER project partner **Universidad Autónoma de Madrid** is using *high throughput DNA sequencing to determine the microorganisms present at polluted soil sites*. We are also determining the genes harboured by these microorganisms in order to determine those encoding enzymes implicated in the biodegradation of organic pollutants.

5. DISSEMINATION EVENTS



GREENER Project H2020 participated at the 1st Virtual ISMET Meeting, that was held online on 7th to 9th October 2020. GREENER partner University of Surrey presented the advances in their work related with “The potential of indigenous microbial communities for greener bioelectroremediation of contaminated waters”. The meeting website is available [HERE!](#)

GREENER Project H2020 coordinator and researchers from **Universidad de Burgos** presented on 13/1/2021 the main objectives, key results and priorities of the **GREENER** Project at the H2020 Soil Cluster session of the Soil Coordinators Day! The event was organised under the Soil Mission Support project, where **ICCRAM UNIVERSIDAD DE BURGOS** participated, with the aim to contribute to the soil mission objectives.



Interesting talk by Dr. Rocio Barros from University of Burgos: Es Europa la panacea para las investigadoras? on the occasion of the International Day of Women and Girls in Science 2021.

On the 10th of February, 2021, two workshops for young girls were held at the facilities of “La Estación”, the innovative community-building space for co-creation activities relying on Science, Technology, Engineering, and Mathematics



5. DISSEMINATION EVENTS



Project coordinator Universidad de Burgos presented our project, its goals, as well as their work and facilities aiming to the bioremediation of contaminated sites on the Researcher's night occasion. <https://lnkd.in/dp26cqS>

Dr. Rocio Barros, our project coordinator, from **Universidad de Burgos**, gave an interesting speech during the "Conference of Researchers of Castilla and León 2021", which took place on 04/15/2021.

Prof. Barros explained how biotechnology can be used as a strategy for effective environmental remediation, including information derived from the **GREENER Project H2020**.

The event agenda can be found [HERE!](#)



greener Universidad del País Vasco Euskal Herriko Unibertsitatea

Master's Degree in Environmental Engineering

12.00-12.30 - Proyecto GREENER: Estrategias integradas para una biorremediación efectiva
Rocio Barros & Blanca Velasco (ICCRAM, Universidad de Burgos)

12.30-13.00 - Aplicación de sistemas bioelectroquímicos para la descontaminación de suelos y aguas subterráneas
Eduard Borras (LEITAT)

13.00-13.30 - Biorecuperación de acuíferos contaminados (casos prácticos)
Alfredo Pérez de Mora (TAUW GmbH)

Rocio Barros
Blanca Velasco
Alfredo Pérez de Mora
Eduard Borras

GREENER Project H2020 partners ICCRAM - University of Burgos, LEITAT Technological Center and Taww Nederland gave presentations on May 5th 2021, at the Master's Course in Environmental Engineering of the **University of Basque Country**.

GREENER Project H2020 is attending the CONDEGRES. Our project coordinator **Universidad de Burgos** presented on 25th of May, the work titled: "Sistemas Integrados para una efectiva remediación ambiental" by R. Barros, S. Martel, J.A. Tamayo, C. Rumbo, P. San Segundo-Lobato, D. Garrido-Sanz, R. Rivilla, and C. Rad. The programme can be found [HERE!](#)



5. DISSEMINATION EVENTS



On June 9th ICCRAM UNIVERSIDAD DE BURGOS researchers **Juan José González Plaza** and **Blanca Velasco Arroyo** have shared an entertaining talk entitled "Ask a scientist!", with 7-8 years old students from CEIP Fuentecillas, in Burgos. Interesting questions have been posed to the two scientists, who have promoted curiosity and scientific vocation in these little children, by answering their queries in diverse fields of research, also including GREENER project targets.

Universidad de Burgos gave an interesting presentation in the AquaConSoil Conference, that was held online on 14-17 June 2021! Take a look at the topics covered by the conference:
https://lnkd.in/dJp_B2t



ONLINE DISSEMINATION



GREENER Project H2020 activities were announced in the **Tauw Group** website. The solutions provided by the **GREENER** project for the de-contamination of soil and water are presented, while the shift from lab to real environmental settings is highlighted. Tauw's technical role in the GREENER project includes:
For more information visit: <https://lnkd.in/dXVFukd>

GREENER partner Tauw Nederland has just published a short article about GREENER Project and their role in the project. The article "A GREENER future for environmental remediation" is published in the September issue of the Dutch Journal "Land and Water"



TV SHOW

GREENER Project H2020

was presented on the CIEN&CIA TV show!

Universidad de Burgos

presented the GREENER concept, its technologies and challenges, as well as the UBU facilities.

The video can be found here:

<https://lnkd.in/dhPsZCt>



6. GREENER VIDEO



The official **GREENER** Project video is available on youtube. The video presents in an easy and

comprehensive way the objectives and expected outcomes of the project, as well as the GREENER technologies that aim

to the environmental bioremediation of contaminated areas. The video was created by our dissemination

expert **AXIA Innovation.**

Enjoy!!!

Like and subscribe at our YouTube channel: <https://Inkd.in/dkuxrrk>



Accelerate the Remediation Time



GREENER Project H2020 video is announced on CORDIS WIRE EC platform. Find out more about the **#GREENER's** goals and technologies applied aiming to remediate a range of organic

and inorganic pollutants of high concern, while producing useful end-products, such as bioelectricity and harmless metabolites.

<https://Inkd.in/d5f3Pjt>



We are happy to inform you that the GREENER Project video was announced in the Official DG Research & Innovation twitter account! <https://Inkd.in/d9TC8uF>

7. UPCOMING EVENTS



GREENER Project H2020 will be presented at the AP-ISMET conference this July 17th, in China.

<https://lnkd.in/dzxbc8Q>

University of Surrey, LEITAT Technological Center and University of Bath will join their forces and give an invited talk in the special session on “Electro-bioremediation”, organised by ELECTRA, our sister project consortium.



Universidad de Burgos, the GREENER Project H2020 coordinator, will present an abstract at the EUROSOIL2021 virtual congress. The work is titled “New opportunities for bioremediation

technologies combining the use of local microbial consortia and organic amendments.”

Take a look at the event at :

<https://lnkd.in/g-gymAD>

[Click here](#) to read our COVID-19 Statement

Connecting People and Soil Online in 2021

The objective of Eurosoil 2021 is to bring together, in a safe online space, leading research scientists working on soil related topics and stakeholders dealing with issues of public concern, such as soil degradation and consequences of climatic changes. The important bridging role of soil practitioners to translate scientific knowledge into practice will be emphasised during the virtual edition of Eurosoil 2021.

Eurosoil 2021
23-27 August 2021
VIRTUAL CONGRESS

[View Programme](#)

[Virtual Congress FAQs](#)

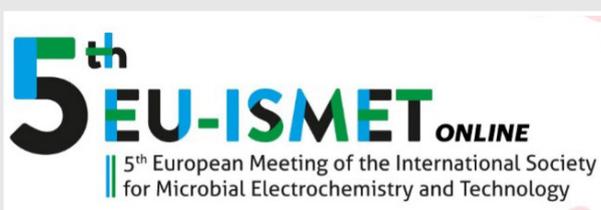
[Committee Members](#)



UNIVERSIDAD
DE BURGOS



For more upcoming major event visit the projects dedicated [website section](#)



LEITAT will participate at the EU-ISMET conference held on 13-15 September 2021. Their work entitled “Increasing the voltage in series-stacked bioelectrochemical systems, a road towards technology up-scaling” will be presented in an oral presentation focusing on the BES technologies.



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The GREENER team Project Coordination team: University of Burgos -ICCRAM



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ICCRAM
INTERNATIONAL RESEARCH CENTER IN METALS AND
MINERALS FOR ADVANCED INDUSTRIAL TECHNOLOGIES



WEBSITE: www.greener-h2020.eu



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