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Integrated Systems for Effective Environmental Remediation

3rd Press Release

GREENER IP Training Workshop

This webinar has provided an overview of the key aspects in the field of intellectual property management (IP) for EU-funded collaborative projects, focusing on the biotechnology industry. Moreover, it aimed at encouraging attendees to kick-start good IP practices and guarantee freedom to operate (FTO) for any joint and individual results to deploy at end-of-project stage.

This project has received funding from European Union's Horizon 2020 research and innovation programme under the Grant Agreement No. 826312

AXIA INNOVATION

Protection of results in the Biotechnology industry – an IP approach

Organisation of the event

Speaker: Marina Garcia (Sustainable Innovations)

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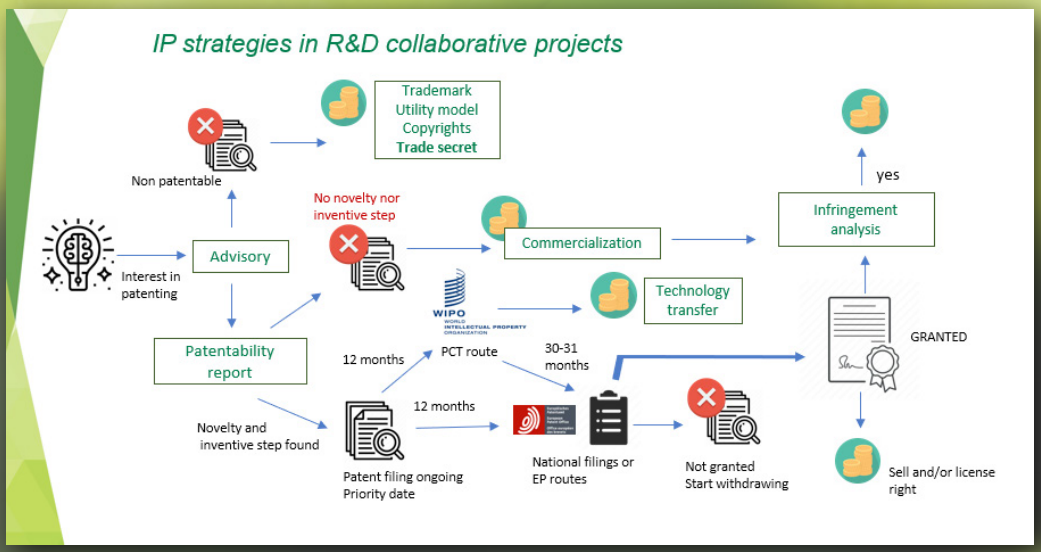
Number of attendees: >100 attendees during the meeting
>300 views on YouTube 15 days after the event

The contents covered the most relevant IP-related issues encountered in collaborative projects, based on the GREENER experience. The session covered an overview on different instruments for IP protection schemes, and recommendations were given in the context of EU projects, how to bring the ownership of both IP background and foreground of exploitation results.
The webinar took a collaborative approach including open questions asking attendees about their views on IP management linked to product development, and how their experiences guaranteeing freedom to operate where. Overall, the attendees interacting where quite familiar with the terms but had very few experience on how to implement strategies within their current field of expertise, and how to link these with their current stage of product development.
The webinar concluded with a Q&A session motivated on how to fill the current gaps between innovation and market, with an aligned IP strategy that can fit well the R&D project concept while making the best out of results to be generated. An important highlight: Bringing out to the table the expected IP foreground generated by each partner is a cornerstone to start designing IP strategy.



Exploitation Activities of the GREENER Project

The exploitation activities for GREENER are preparing for the second half of project execution, where most of individual results identified are being tested at pilot scale. During the scaling up phase, the technologies developed are taking an in-situ approach and comprehend the advancements made both in the field of soil and water remediation. The project expects to have its preliminary results of all scaling up activities from M48. As of M40, 13 Key Exploitable results have been identified and are planned to be deployed after-project, where potential NDAs will be signed prior the end. An industrial design and several Freedom to Operate analysis are planned to be defined following the outcomes of the scaling up phase. Furthermore, a patent filing is on preparation process by one of the partners involved in GREENER.

As reflected in the last version of the Exploitation Plan, a bigger effort is still to be made at national and supra level in order to project bioremediation as one of the key cornerstones for the bioeconomy in Europe. However, its potential to become a powerful instrument for many fields of application and markets is huge: recent tech trends such as the new molecular techniques for microorganism and microbial optimization, engineered-assisted technologies to improve techniques combination or Enzyme redesigning are just some examples on how bioremediation technologies are opening ways to bring benefits to different stakeholders across the value chain and bridge the gap between science and market.

The recently approved and established EU Soil strategy for 2030 aims to fill these current gaps, building on the European Green Deal and strengthening past efforts made and suggested from EU Cohesion Fund (CF) and European Regional Development Fund (ERDF) in the case of soil management (JRC). This strategy, where the bioremediation could have its core on the Zero Pollution Action Plan (20), the Circular Economy Action Plan (21) and the EU Biodiversity Strategy for 2030 (22) and focuses on contamination prevention, and calls for the same level of protection for soils that is given to air and water.

In GREENER, a SWOT analysis (Strengths, Weaknesses, Opportunities and Threats) has been carried out providing these considerations, and how the role of bioremediation technologies can make the best out of upcoming efforts from the public and private sector.

Many opportunities for bioremediation lie on the ability of involved key actors to engage in communication-based activities, not also targeting the general public but aimed to strengthening cooperation with the technology and private capital world, where the new EU Taxonomy will play an important part in the upcoming years. In GREENER, an exercise on how to apply the benefits of the results to this taxonomy will be a future exercise to do during the next year of implementation.

STRENGTH	WEAKNESSES
From a European perspective, the EU Bioeconomy Strategy recognized bioremediation techniques as driver for an effective establishment of bio-based value chains. The rising combination of different bioremediation techniques as well as the integration of data and engineering-based solutions are reinforcing the efficiency of microbial processes and methods. Further education on research groups and systematic testing across heterogeneous sites are increasing the awareness on the economic and environmental benefits bioremediation provides.	▸ The existing regulatory gap at European, national, and regional levels represents a limit to the use of renewable bioresources both for remediation and for an economic perspective of contaminated areas. Also, bioeconomy strategies often fail to mention the existing regulatory obstacles and seldom refer to the drivers associated to contaminated biomass exploitation. ▸ Estimates on jobs and growth created by bioremediation actions in bioeconomic are still not competitive numbers compared to other bio-based industries, which consequently lacks market reference and applications. ▸ A more in-depth, sounding analysis on the economic benefits during on-site area management should be widely communicated, providing quantitative measurements and analysis of the market potential for scale up. ▸ The potential intrinsic value of bioresources impacts on the production of goods and services in contaminated areas requires a systematic analysis of the entire value chain, which may require efficient communicative multidisciplinary teams and a proper policy landscape of urban areas.
OPORTUNITIES	**THREATS**
Engagement of research bodies with technology suppliers and investors is needed to reach to a desired technology maturity to be widely exposed at market level. UN SDGs as well as the EU Taxonomy provide a framework to measure in a more quantitative way the economic and financial benefits from sustainable-based tech.	There is a risk of low engagement with key stakeholders are not effectively translated to facilitators who can contribute potential of technologies developing in the field, combining to a future scale up of GREENER sites and coming projects. GREENER consortia must evaluate sharply both the technical and economic performance of the scale up technologies in each site, to showcase business potential of bioremediation technology by the end of the project. On this regard, GREENER consortia should also create and boost educational and informative communication materials targeting a wider public.