

Sustainable Exploitation of bio-based Compounds Revealed and Engineered from natural sources



1st PRESS RELEASE Kick-Off Meeting

The SECRETed H2020 project is funded under the FNR-11-2020 topic.

The SECRETed project aims to fully exploit aquatic biotechnology for the development of biosurfactants and siderophores with tailor-made properties based on marine and extremophilic microorganisms. Systems and Synthetic Biology toolboxes and methods are employed to reverse engineer and combine biosynthetic pathways for the production of new-to-nature compounds for multiple sectors including agrochemical, pharmaceuticals, cosmetics and chemistry. The SECRETed project objectives are the following:

- To unlock the potential of marine and extremophilic bacteria for the development of tailor made amphiphilic molecules.
- To screen and detect biosynthetic gene clusters for the synthesis of biosurfactants and siderophores based on 4 different aquatic microbial collections.
- To develop a genomic and chemicals properties database.
- To 'mix and match' modular genetic elements with tailor-made compounds.
- To characterize newly discovered and engineered compounds.
- To optimize compounds production and purification methods.
- To demonstrate developed microbial strains in pilot scale bioprocesses.
- To assess environmental, economic and social impacts of the proposed solutions and compounds.



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The Kick-off meeting was held remotely due to COVID-19 Pandemic on the 28th of June 2021 and was hosted by the Coordinator of SECRETed project, IDENER R&D. All the SECRETed partners presented their organisations and focused on capabilities and activities related to the project. They also presented their contributions to the Work Packages and associated Tasks. The EC Project Officer introduced the EC expectations that were mainly focused on the guidelines for project implementation.

The coordinator presented in details Ethical issues (WP1) and Management Information (WP10) focusing on the importance of the Grant Agreement content. MATIS presented the main objectives of WP2 including the identification of genetic elements for the synthesis of novel compounds. WP3 is in charge of databases integration and Industry-driven

designs and was presented by IDE R&D focusing on the interactions with other WPs. USE is the leader of WP4, which refers to the development, validation and optimization of model-driven strain designs, while UoA (leader of WP5) showed the objectives of WP5 including the development and standardization of cultivation, purification and analytical methods. WP6 refers to the demonstration of pilot scale bioprocesses, undertaken by BBEP, while WP7 refers to the characterization and evaluation of SECRETed compounds for end-users' applications (led by SE). Blue Synergy, the leader of WP8, presented the methodologies for environmental, economic and social assessment of SECRETed solutions and compounds. Finally, WP9 is dedicated to dissemination, communication and exploitation activities and was presented by EXELISIS.

