BIO4MAR – Research Project Fact Sheet.

Title of Project	Development of a waste biomass conversion system that incorporates liquefaction and pyrolysis technologies for producing biochemicals for the maritime sector
Project Acronym	BIO4MAR
Funding Program	THE RESEARCH AND INNOVATION FOUNDATION PROGRAMMES FOR RESEARCH, TECHNOLOGICAL DEVELOPMENT AND INNOVATION "RESTART 2016 – 2020"
Project Identifier	CODEVELOP-AG-SH-HE/0823/0181
Total Budget	75.700,00 €
Starting – Ending Date	01/05/2024 - 2026
Consortium	1. ECORBIO LTD 2. Cyprus University of Technology 3. Frederick Research Center 4. CY.R.I.C CYPRUS RESEARCH AND INNOVATION CENTER LTD
Project Objectives	General: The maritime industry faces a pressing chalenge with the use of unsustainable chemicals in vessel construction and maintenance, notably polyurethane (PU) and phenol-formaldehyde (PF) polymers. Despite their wide application in foams, sealings, and coatings, these materials heavily rely on petroleum derivatives or high ILUC biomass feedstocks. Recognizing the need for sustainable alternatives, the BIO4MAR project is pioneering a novel system for combined production of biopolyols and bio-oils, aiming to reduce reliance on unsustainable chemicals. The project targets advancement to TRL7 through knowledge transfer, performance assessment, testing with maritime collaborators, and establishment of dissemination plans. Utilizing direct thermochemical upcycling and valorization of industrial by-products and low-value waste biomass, BIO4MAR will produce biopolyols and bio-oils, supplemented by pyrolysis to extract valuable phenolic compounds. Co-developed by ecorbio Ltd, Cyprus University of Technology, Frederick Research Center, CyRIC Ltd, CELLMat, and Fraunhofer WKI, the project benefits from the expertise and infrastructure of its consortium partners, ensuring successful implementation.
Work Packages	WP1: Project management. WP2: Dissemination and Exploitation Activities WP3: Defining the requirements and designing the system WP4: Integration, testing and performance assessment. WP5: Environmental Impact Assessment and Life Cycle Analyses. WP6: Demonstration of the production system and the produced BP and PBO.
External References	https://www.research.org.cy/en/