



ESY: ECOSHIPYARD (<https://ecoshipyard.eu/>)



Country	Contract value (€)	% carried out by Epsilon	No of staff provided	Client	Origin of funding	Date (start/end)	Consortium Members
Malta	4.157.410,26	10% 444.479,00	10	European Commission	EC Horizon HORIZON-CL5-2023-D5-01	01/01/2024 01/01/2027	15

Description of the project

Services provided

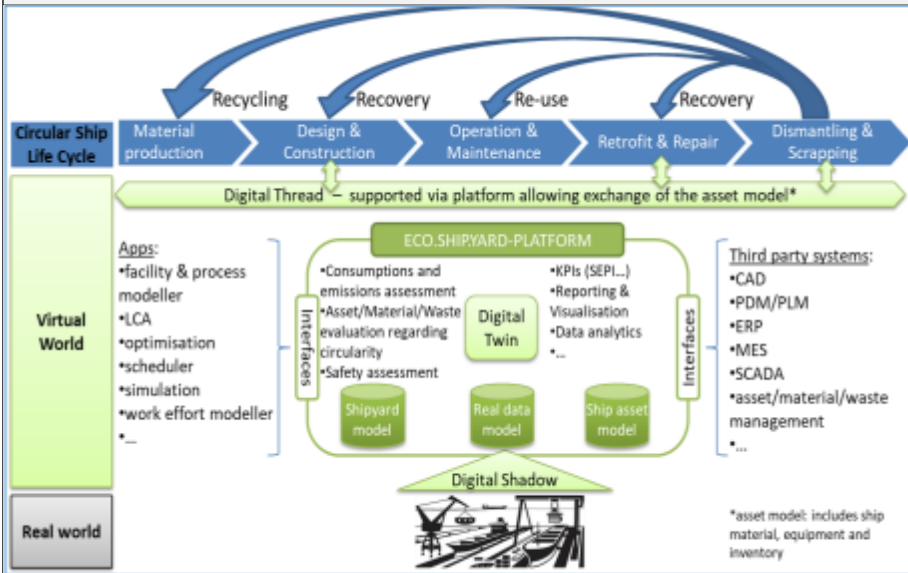


Figure 7: ESY Platform

Ecoshipyard objectives are:

- Design/Implement a digital twin shipyard model for energy, emissions control, and waste management.
- Development of the Shipyard Environmental Performance Index (SEPI), relevant KPIs and contribution to the ship environmental performance indicator of non-operational activities.
- Enhance environmental awareness, technical, organisational, and training guidelines for Shipyard.
- Circular and Sustainable Management of Ship Lifecycle.
- Living Lab (LL), LL Cluster (LLC), LL Training to deliver TRL8 product to market via EEIG.

The ESY project, titled ECOSHIPYARD, focuses on promoting sustainable shipbuilding practices and enhancing material circularity within the European Union. The project aims to reduce the environmental impact of shipyards by improving energy efficiency, optimizing operations, and implementing innovative solutions such as the EU-material passport for ships. This passport will track the origin and use of materials throughout the shipbuilding process, supporting circular management. Additionally, the project will develop digital tools to monitor environmental impact, reduce emissions, and contribute to the EU's environmental and climate goals by fostering sustainable shipbuilding practices.

For WP1:

- Epsilon ensured the successful implementation and management of the technical and scientific aspects of the proposed project.
- Designed the strategy to address the requirements entailed by the Horizon Open Research Data.
- Developed the KPIs Management System, QA/QC and Risk Analysis framework.
- Provided a thorough and objective review of the technical aspects of the project.

For WP2:

- Developed a strategy for sustainable end-of- life management of ships utilizing LCA and LCC methods.

For WP4:

- Determined the platform's functional scope and digital twin's model by analyzing various sources of information.
- Drew and evaluated on the input from other WPs, a range of data analytics methods and tools.
- Executed an effective sustainability assessment based on data analytics.
- Enable organizations to make data-driven decisions by providing a holistic view of performance metrics and identifying areas for improvement.
- Prepared and carried out personnel training in preparation for the demonstration cases.

For WP6:

- Created a collaborative platform that tested and validated innovative solutions developed in the project responding to circular economy and Green Deal endeavours.
- Produced a tangible and effective business model for ESY, to analyse the potential market in numbers, to establish an EEIG Flagship engaging wide audiences.