Ref no	Project title		HOLISTIC LIFE CYCLE ANALYSIS (LCA) PLATFORM FOR THE SHIPPING INDUSTRY (VESSELSLIFE.COM)					
Name of legal entity	Country	Overall contract value (€)	Proportion carried out by legal entity (%)	No of staff provided	Name of client	Origin of funding	Dates (start/end)	Name of consortium members, if any
Epsilon	Malta	901 234	29.15%	3	European Commission, H2020	European Commission, H2020	11/2019 03/2021	DANAOS, PwC Malta, UPRC, Balance, Epsilon, ITML

Detailed description of project

- Ship LCA – Life Cycle Assessment refers to the evaluation and analysis of environmental and economic factors throughout all the phases of the life-cycle of a ship from cradle#to#grave in three phases (I, II, III), i.e., (I) design/construction, (II) operation/maintenance, and (iii) end-of-life/scrap,.
- VesselsLife.com regards the problems that arise during the ship life-cycle as “decisions to be made”.
- VesselsLife.com employs multi-criteria decision-making methodologies to structure and evaluate different alternative decisions. A basic characteristic of the platform is the use of KPIs-key performance indicators (e.g., Capital & Operational Expenditure, Maintenance/Repair Cost, NPV, Energy Efficiency Design Index, NOx and SOx emissions) that describe important economic, technical, operational and environmental dimensions for alternative decisions. KPIs are aggregated to composite indicators so to aid the decision-making. Optimal decisions proposed by the system are documented and presented using graphical tools. A series of real business applications is provided.

Type and scope of services provided

- The first phase over a vessel’s lifecycle is the design and the construction. The following methodology is introduced in the VesselsLife.com LCA Tool in order to evaluate the environmental performance of the vessel design during this phase. The model estimates the environmental impact of ship construction processes for different emission factors.