Newsletter 3, July 2019

SHIP LIFECYCLE SOFTWARE SOLUTIONS

Project partners during workshop in Varna, June 2019

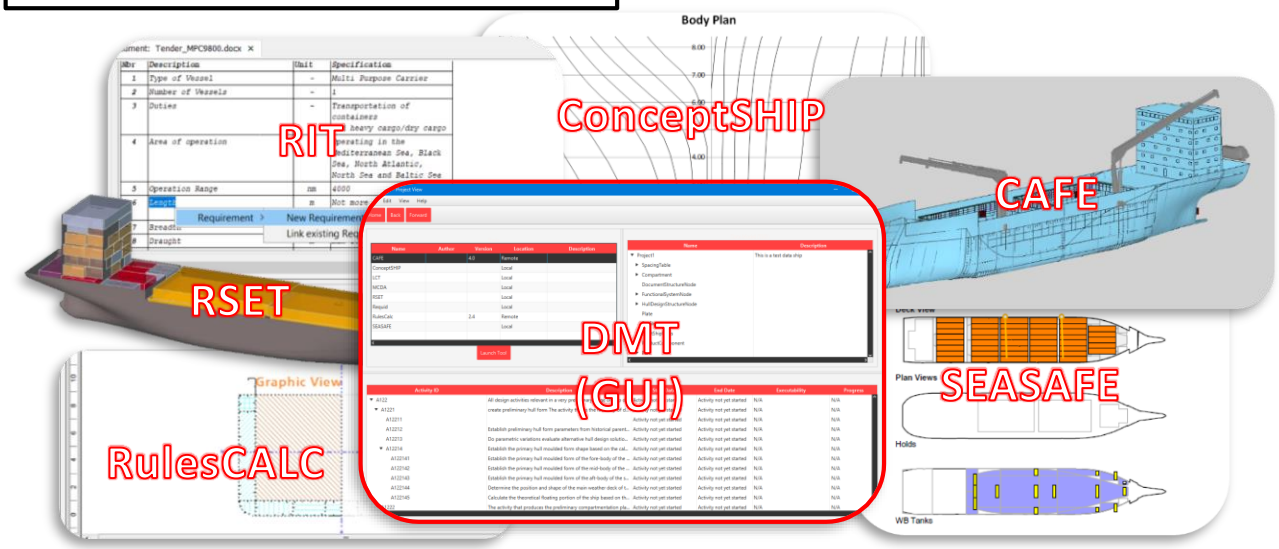
SHIPLYS (Ship Lifecycle Software Solutions), a three-year Horizon 2020 project, is in its final stage now. The outcome of this project is a SHIPLYS platform with integrated applications in response to needs of SME naval architects, shipbuilders and ship-owners. The platform reduces time and costs of design and production thus improves the competitiveness of the European SMEs. The project provided the ability to reliably produce better ship concepts through virtual prototyping and to meet the increasing requirements for LCCA, environmental assessment, risk assessment and end-of-life considerations.

SHIPLYS Platform

Following applications are integrated within the SHIPLYS Platform. The tools listed on the left side were developed within the project and the tools on the right were developed and/or commercially available before:

- **DMT** – design management (BMT)
- **RIT** – requirement identification tool (AES)
- **ShipLCA** – life cycle analysis (USTRATH)
- **MCDA** – multi-criteria decision analysis (TWI)
- **PPT** – production planning software (AES)
- **RiskSHIP** – risk assessment (IST)

- **ConceptSHIP** – concept design tool (IST)
- **RSET** – compartment arrangement (BMT)
- **CAFE** – 3D design tool (BVB)
- **LR SEASAFE** – stability calculations (LR)
- **RulesCalc** – determination of scantlings (LR)



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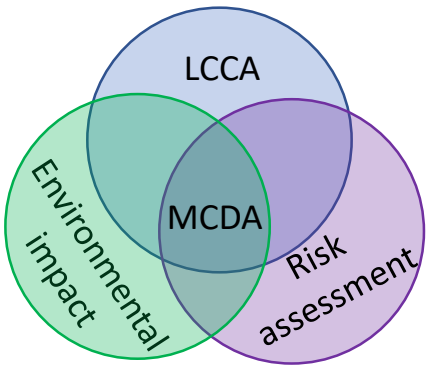
SHIP LIFECYCLE SOFTWARE SOLUTIONS

Main achievements

- Analysing the end-users' needs using the QFD method and selecting design scenarios
- Collecting the relevant data and parameters for early ship design and LCA
- Incorporating existing ISO 10303 Application Activity Model and introducing new activities
- Software tools' integration and database based on a glue code using REST API with the ability of integrating other tools
- Developing exploitation plan and a strategy for product commercialization



Three design scenarios used for testing

- Optimisation of a novel hybrid propulsion system used in a short-route ferry
- Development of conceptual ship design with inputs from risk-based life cycle assessments
- Development of software to support early planning and costing of ship retrofitting accounting for life cycle costs and risk assessments

Workshops

SHIPLYS project partners organized two workshops to present the final solution to the relevant stakeholders. The workshops offered an insight into SHIPLYS platform and integrated solutions via a live demo.

The first workshop was held in **Varna**, organized for the representatives from Bulgarian shipyards and universities. The other one was held in **Vigo**, intended for the representatives of shipyards and technical offices in Spain and for the Galician Ship-building cluster (ACLUNAGA).

Workshop in Vigo, July 2019

Public project deliverables & publications

Project results are presented in several public deliverables. Also, project partners exchanged knowledge on numerous conferences by publishing and presenting papers resulting from the research conducted within the project.

All public deliverables and publications can be downloaded at: www.shiplys.com/library

Project Consortium: