

Engagement SEAbrary.eu: Open access database for safety at sea and integrated risk assessment tools

Countries	Project value (€)	% by EPSILON	€ by EPSILON	Engagement	Funding by	Date	Partners
GR, LU,							DANAOS, INTRASOFT, NTUA,
BE, GR,	4.500.000	10%	450.000	HORIZON	EU	31.01.2018	UOS, TWI, STIR, CETRI, LR
GB, MT,DK							BALANCE, AVIONTEK, WMU,

Description

The development of autonomous technology has progressed faster than expected. In the maritime industry, the human element is not eliminated but transformed, and similarly, the technical and non-technical skills required for safe ship operation will evolve. In aviation, organizations like the FAA, EASA, and EuroControl monitor and assess the impact of human factors on accidents. EuroControl has developed the SKYbrary Aero-database, an integrated system that includes information,



methodologies, technologies, videos, impact analyses, and safety regulations, all linked to human factors. Such a system does not exist for the maritime sector.

EPSILON and the consortium proposed the SEAbrary project to deliver at first such a database to the Public Sector and to the Stakeholder's Society of the Marine and Maritime Sectors, via this project and as "A Single Point Reference for the Maritime Safety". Specifically, partners of the consortium will bring their aviation expertise in the proposal, but the consortium will filter and adjust this within the rational and operations of the maritime industry.

The objectives of **SEAbrary** in terms of technical goals were:

- Assessment of the human, organisational and technological factors in the operation of a vessel.
- Development of an operational framework towards the future changes in the maritime industry
- Improvement of crew training and optimization of the selection process of operators
- Development of guidelines for risk-based design and operations
- Development of a web-based, free-content platform
- Development of the exploitation and dissemination strategy for the SEAbrary tools
- Increase safety in waterborne transportation

Outcome

The first pillar of SEAbrary would create and deliver a web-based, free-content adaptive platform that holistically addresses new safety trends, focusing on the human element. It will provide open access for potential end-users (e.g., seafarers, shipping companies, regulatory bodies, classification societies) to exploit and assess the platform. Acting as both an accident-incident database and a central reference point, SEAbrary will serve as a repository for: maritime operations modeling, human performance modeling in maritime operations quantifying human performance in critical situations, crew training, updated information on safety-related operational issues and vessel systems, recommendations for enhancing safety standards, new safety regulations and guidelines

The second pillar is the design of innovative data analysis tools. These tools would take advantage over the continuous fusion of information while translating raw data into new safety system designs. Toolkit of modules would be open for exploitation and assessment from all the shipping community and users of the platform.

