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Ship Lifecycle Software Solutions (SHIPLYS)

Project Deliverable Report

D9.2 SHIPLYS dissemination activities carried out

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EXECUTIVE SUMMARY

The main purpose of dissemination is to raise public awareness of the SHIPLYS project’s aims, developments and results. This deliverable gives an overview of all dissemination activities carried out for the entire duration of the project.

The dissemination strategy was set up at an early stage of the project and recorded in D9.1, where the targeted audiences, objectives, communication channels, and supporting promotional materials were defined. According to these plans, SHIPLYS project partners had numerous activities related to disseminating project results to the relevant stakeholders and a wider shipbuilding community.

Dissemination activities that are presented in this document include:

- Developing and maintaining a public website and sharing the news online via social media or partners’ company websites
- Producing promotional materials (newsletters, flyers etc)
- Participating and presenting technical papers at conferences, workshops and seminars
- Informing the technical press about the project
- Organising workshops

Tables 1 and 2 summarise the status and impact of the dissemination activities achieved, compared with the initial dissemination plan that was created at the beginning of the project as part of SHIPLYS Deliverable D9.1 (*SHIPLYS dissemination strategy*).

Table 1: Summary of the status of planned dissemination activities

Categories of the planned activities	Status	Reference
Project website	Achieved	Section 3
Designing the project logo	Achieved	Figure 1
Promotional material (banner, publishing brochures/posters, Project flyer, SHIPLYS newsletters)	Achieved	Section 5
Press releases	Achieved	Section 4
Promoting project via website and social media	Achieved	Section 6
Protection of foreground IP	Achieved	D9.3
Promoting the project at conferences and events	Achieved	Section 8
Submitting papers to academic journals and engaging with the wider press	Achieved	Section 8
Creating a detailed exploitation plan for the final project results	Achieved	D9.4, D9.5
Workshops, seminars, and software training to provide to future SME users of the software tools	Achieved	Section 9

Table 2: Summary of impact achieved from various dissemination activities

	General public	Scientific and technical community	Industry partners (shipyards and ship-owners)	European Maritime Community and authorities	Impact achieved
Website and promotional materials	x	x	x	x	Section 5 for details
Press releases	x	x	x	x	Section 4.2 for details
Technical publications		x	x	x	Section 7 and Section 3 for details
Scientific publications and conferences		x		x	Section 8.2 for details
Dedicated workshops and seminars		x	x		Section 9 for details
Training materials, lectures		x	x		Section 9 for details

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1 Introduction

This deliverable presents the results of Task 9.1 “Results dissemination” accomplished from the beginning until the end of the project. The entire project consortium participated in this task with as2con llc. as a leader.

The outcomes of this task are the dissemination activities which follow the plans presented in D9.1 “SHIPLYS Dissemination strategy”. The main goal is to raise public awareness, targeting the wider shipbuilding community, especially SME shipyards and design offices. Project dissemination has the potential to maximise the benefits of project results, i.e. the SHIPLYS Platform and integrated applications, by informing potential interested stakeholders and also by presenting technical publications to the relevant conferences and events.

Every six months, project partners were requested to fill in the table of dissemination activities in order to monitor what was accomplished in the reporting period and what would be in the plans for the next period. This document gives a summary of the activities reported by the consortium along with analysis of the achieved impact. The entire table from the final period can be found in Appendix A.

The first step was defining the project identity and setting the project website. Afterwards, project partners have published numerous papers, promotional materials have been created and distributed, and two major workshops were organised with the interested stakeholders.

2 Project identity

The first activity for project dissemination was setting the project’s logo (see Figure 1). That defined the project identity, and later the logo has been used in every document, presentation or promotion material. It also served as a base for creating the templates for deliverables and project presentations.



Figure 1: SHIPLYS logo

3 Project website

3.1 Details

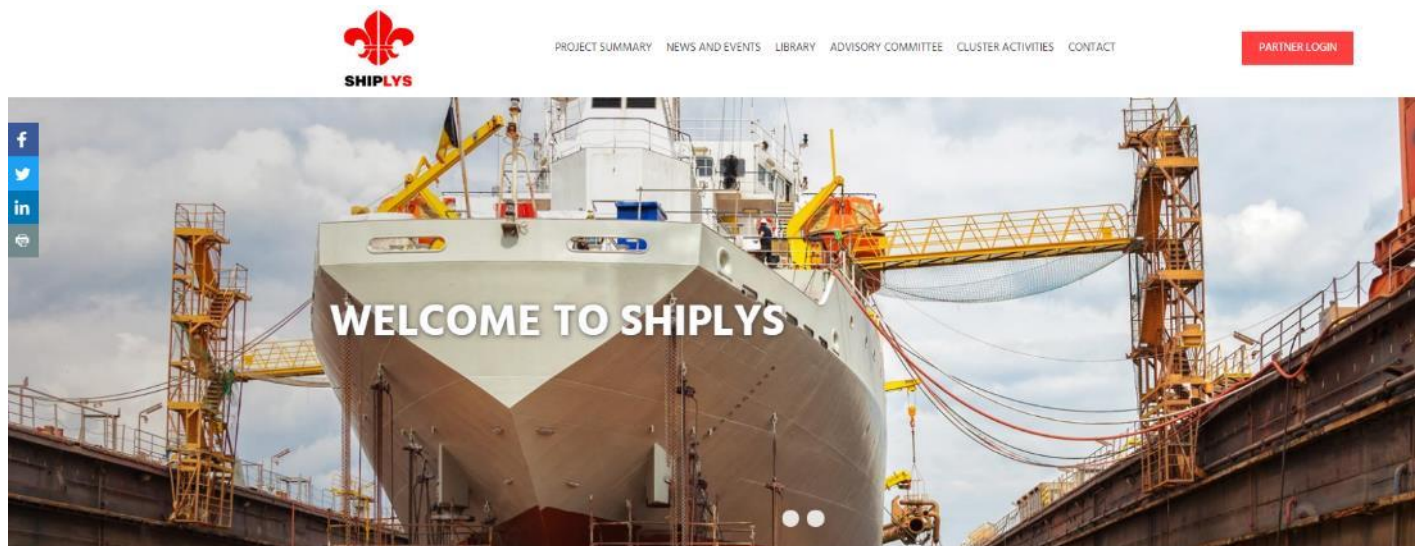
The project website (www.shiplys.com) has been created and maintained by TWI. The home page is shown in Figure 2. It has information on SHIPLYS for general public, and is divided by the following main tabs:

- **Home page** – general information on the project and SHIPLYS Consortium

- **Project summary** – project impact, objectives and approach along with the presentation of the three case scenarios that serve as a base for testing the SHIPLYS platform and its functionalities
- **News and events** – news on project meetings, events and workshops
- **Library** – containing deliverables, publications and digital promotional material (newsletters and flyers) which are available for download
- **Advisory committee** – list of members that expressed their interest to participate in the project through a SHIPLYS Stakeholder Advisory Committee
- **Cluster activities** – collaborations with other projects (LINCOLN, HOLISHIP etc)
- **Contact** – containing the enquiry form where website visitors can ask questions

The website has been regularly updated with three news on project meetings, published papers, completed project deliverables and digital promotional material.

Also, within the website, there is a project repository for storing and sharing all relevant documents among partners. It is a secure and private area with password-protected entry.



What is SHIPLYS?

SHIPLYS (Ship life cycle software solutions) is a three-year project starting in September 2016 and has a budget of about 6.2 million Euros.

The project is in response to needs of SME naval architects, shipbuilders and ship-owners, who in order to survive in the world market require to:

- improve their capability to reduce the time and costs of design and production
- develop the ability to reliably produce better ship concepts through virtual prototyping
- meet the increasing requirements for LCCA (Life Cycle Cost Analysis), environmental assessments, risk assessments and end-of-life considerations as differentiators.

The calculation and modelling to achieve the functionalities required are difficult and time consuming, especially for SMEs without a large overhead of trained staff and tools. This is due to challenges in integrating data between incompatible tools and formats for different design stages: conceptual hull design; the finite element calculations feeding preliminary and detailed designs; and virtual prototyping simulation models. This is coupled with the lack of an industry specific lifecycle modelling technique, hindered by the lack of information to support reliable decision-making. SHIPLYS aims to address these challenges for the benefit of various stakeholders involved.

Keep informed with our latest developments by downloading [our newsletter](#).



Figure 2: Project website home page

3.2 Achieved impact

The main purpose of the official project website is a public presentation of all relevant information about the project and its results and to raise public awareness. All project partners have contributed to achieving these

goals by sharing the SHIPLYS website link when publishing project news and results on their own company’s website and social networks.

The achieved impact was measured by the number of visitors and the data were supplied by Google Analytics. Figure 3 shows the changes in a number of visitors through the entire duration of the project. The overall number of users is 4708 with 17070 page views, as shown in Figure 4. The greatest number of users was from the United Kingdom (25%), with the next nine countries being the United States (13%), France (6%), Spain (6%), Greece (5%), Brazil (4%), Germany (3%), China (3%), Italy (3%) and Croatia (2.5%).

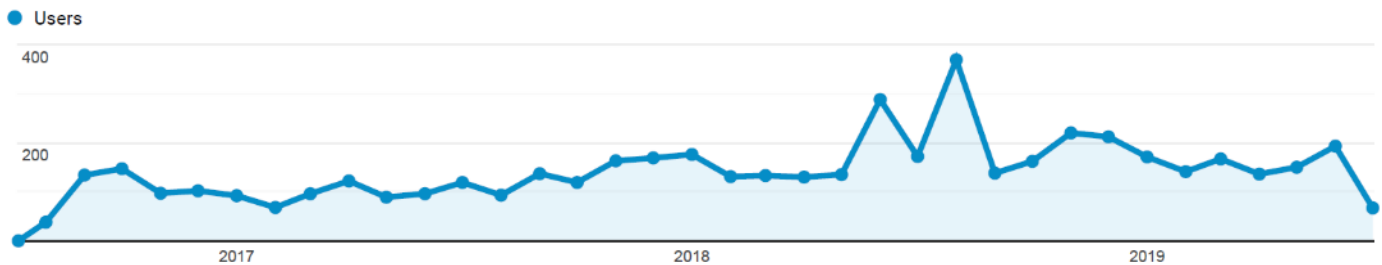


Figure 3: SHIPLYS website audience overview for the period Jul 2016 - Jul 2019

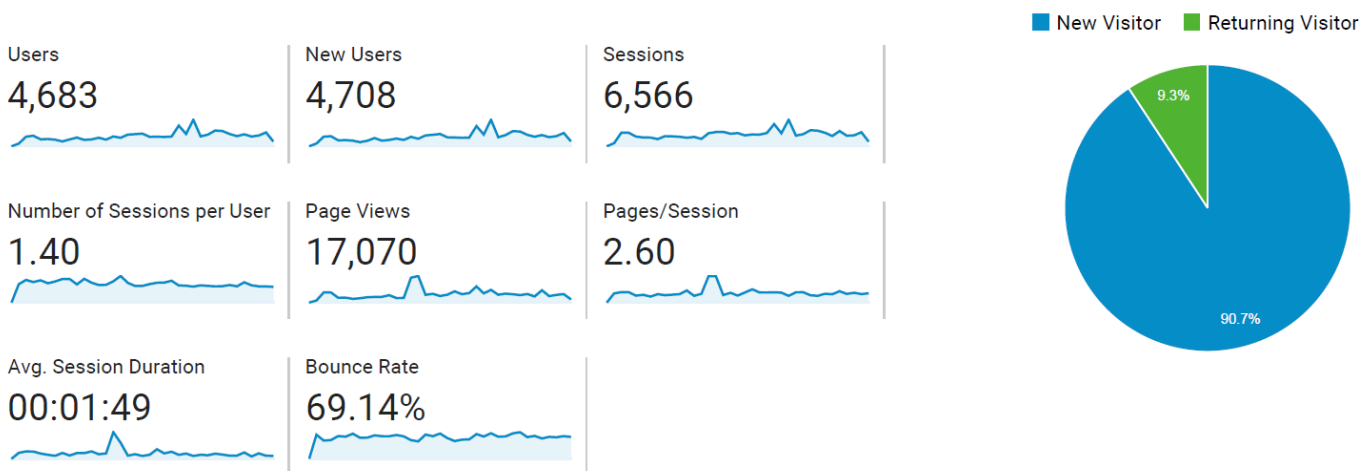


Figure 4: SHIPLYS website - total number of users and page views

4 Press releases

4.1 Details

Two press releases have been created and distributed to the relevant media with the aim of informing the general public but mainly focusing on the maritime community. The first was created by as2con at the beginning of the project with the purpose of announcing the start of the project. It was published in at least 10 maritime web portals and magazines, including Maritime Journal, MarineLink, Ship Efficiency Review, Hellenic Shipping News. The entire press release, links to a publishing magazine and screenshots were reported in Deliverable 9.1 *SHIPLYS dissemination strategy*.

The second press release was created near the end of the project, and presented the most interesting project findings and results (see Appendix B). It was created by as2con and TWI and distributed among the

consortium in order to forward it to the media lists that include major maritime web portals and magazines (the same lists as for the first press release).

Table 3 shows the list of on-line portals and magazines that published the second press release.

Table 3: Published second press release links (screenshots are provided in Appendix C)

Magazine/Web portal	Link
SAFETY4SEA	https://safety4sea.com/eu-project-for-ship-design-and-production-completed/
SHIPPAX	https://www.shippax.com/en/press-releases/completion-of-the-european-research-project-shiplys-to-advance-ship-design-and-production-process.aspx
MarineLink	https://www.marinelink.com/news/completion-eu-research-project-shiplys-469676
Maritime Journal	https://www.maritimejournal.com/news101/industry-news/ship-design-research-project-is-complete
Riviera Maritime Media	https://www.rivieramm.com/news-content-hub/news-content-hub/software-transforms-early-ship-design-55972
Hellenic Shipping News	https://www.hellenicshippingnews.com/completion-of-the-european-research-project-shiplys-to-advance-ship-design-and-production-process/

4.2 Achieved impact

The achieved impact is measured by the number of readers for the particular magazines that have published the SHIPLYS press releases (see Table 4).

Not only that press releases serve as an effective tool for distributing content to the media and potential users, but they also create an excellent opportunity to attract incoming links to the project webpage.

Table 4: Indicator for measuring achieved impact from published press releases

Magazine/portal	Number of readers (approx.)
Ship Management International	6.700 (average circulation per issue)
MarineLink (web)	180.000 (average monthly website users)
Digital Ship	6.300 (users per month)
Green4Sea (web)	40.000 (visitors per month)
Maritime Executive	21.600 (print and digital per issue)
Maritime Journal	29.500 (print and online per issue)
Motorship (web)	17.000 (website visitors per month) 8.600 (eNewsletters readers)
Ship Efficiency Review	Not available

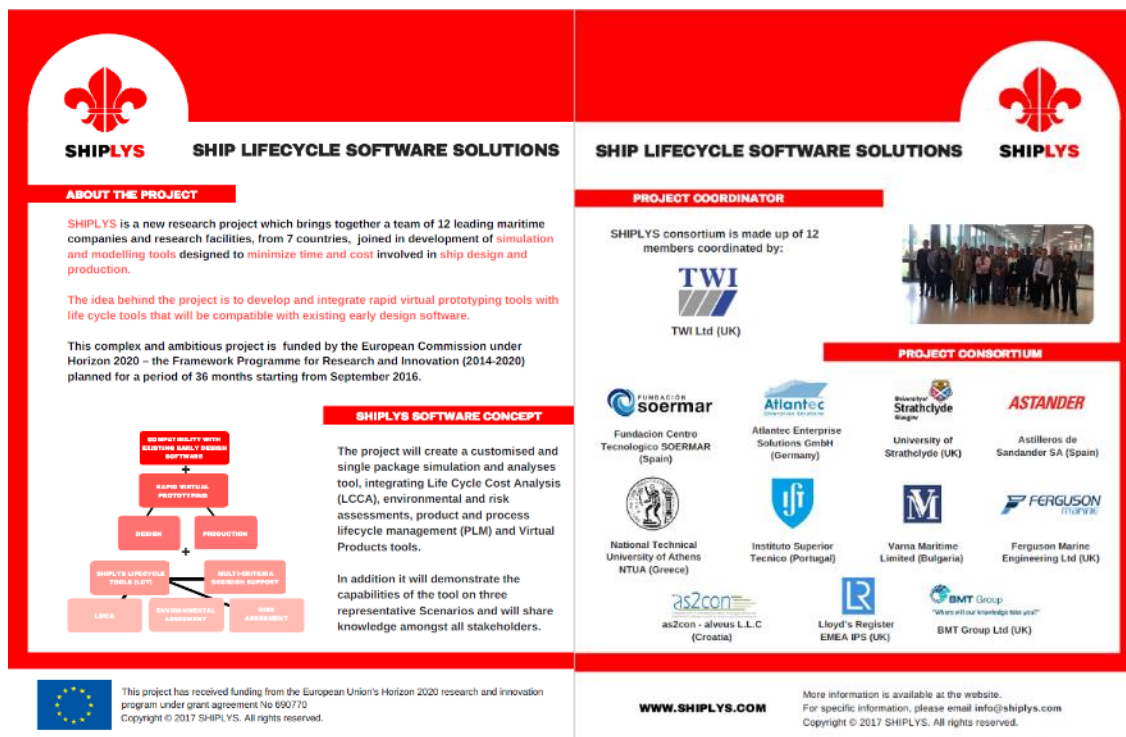
Magazine/portal	Number of readers (approx.)
TradeWinds	7.800 (print and digital per issue)
Hellenic Shipping News (web)	46.600 (average visits per month)
SAFETY4SEA (web)	40.000 (visitors per month)
SHIPPAX	21.000 (visits per month on a website) 3.000 readers of each publications
Riviera Maritime Media	Not available

5 Promotional materials

5.1 Overview

In three years, the following promotional materials were produced: one flyer, three newsletters and one banner. Their purpose was to provide general information on project developments accompanied with graphics, photos and easy to understand technical data. The flyer and banner were printed and distributed at conferences, workshops and similar events, and newsletters were created in a digital form and distributed via partners' website or by emails. All partners participated in providing the input data and distributing promotional materials to their relevant contacts.

5.2 Flyer



The flyer is divided into two main sections. The left section, titled 'SHIPLYS SHIP LIFECYCLE SOFTWARE SOLUTIONS', contains 'ABOUT THE PROJECT' and 'SHIPLYS SOFTWARE CONCEPT'. The right section, also titled 'SHIP LIFECYCLE SOFTWARE SOLUTIONS SHIPLYS', contains 'PROJECT COORDINATOR' and 'PROJECT CONSORTIUM'.

ABOUT THE PROJECT

SHIPLYS is a new research project which brings together a team of 12 leading maritime companies and research facilities, from 7 countries, joined in development of simulation and modelling tools designed to minimize time and cost involved in ship design and production.

The idea behind the project is to develop and integrate rapid virtual prototyping tools with life cycle tools that will be compatible with existing early design software.

This complex and ambitious project is funded by the European Commission under Horizon 2020 – the Framework Programme for Research and Innovation (2014-2020) planned for a period of 36 months starting from September 2016.

SHIPLYS SOFTWARE CONCEPT

The project will create a customised and single package simulation and analyses tool, integrating Life Cycle Cost Analysis (LCCA), environmental and risk assessments, product and process lifecycle management (PLM) and Virtual Products tools.

In addition it will demonstrate the capabilities of the tool on three representative Scenarios and will share knowledge amongst all stakeholders.

PROJECT COORDINATOR

SHIPLYS consortium is made up of 12 members coordinated by:

PROJECT CONSORTIUM

Logos of consortium members: Soermar, Atlantec, Strathclyde, ASTANDER, National Technical University of Athens, Instituto Superior Tecnico, Varna Maritime Limited, FERGUSON MARINE, as2con, Lloyd's Register, BMT Group.

www.shiplys.com

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Figure 5: Outer side of the project flyer

The SHIPLYS project flyer (Figures 5 and 6) was created in March 2017 by as2con with the support of other partners. It was designed for printing with the purpose of sharing it when attending and participating at conferences and events attended by relevant stakeholders.

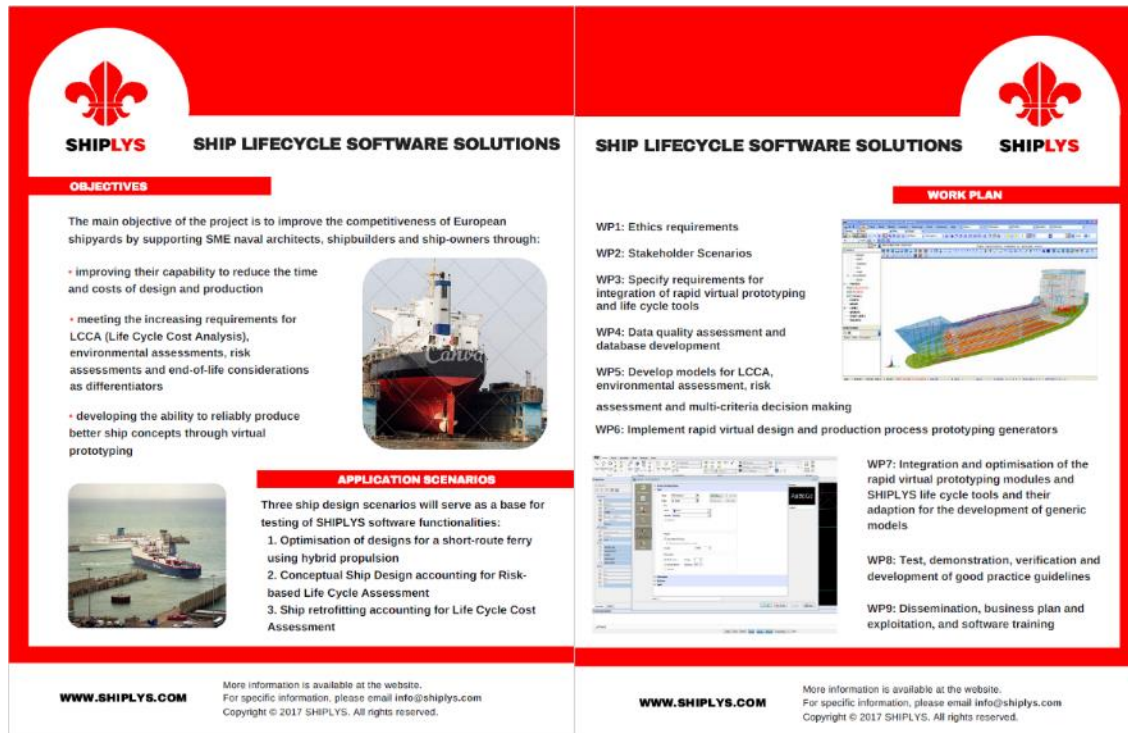


Figure 6: Inner side of the project flyer

5.3 Newsletter

According to the dissemination plans, three project newsletters were created by as2con presenting the project development through the different stages. The first newsletter, offering a short technical introduction, was created in December 2016 (see Figure 7).

The second newsletter offered an overview and findings for the first half of the project. At that time, the SHIPLYS product had been initially defined, and the list of integrated solutions was provided along with the description of the design case scenarios that were planned for the testing of the platform. The second newsletter can be seen in Figure 8.

The third newsletter was created at the end of the project and provided a final overview of all the most important project milestones, findings and results (see Figure 9).



SHIP LIFECYCLE SOFTWARE SOLUTIONS



SHIPLYS is a new HORIZON 2020 research project which gathers a team of 12 leading maritime companies and research facilities joined in development of **simulation and modelling tools designed to minimize time and cost involved in ship design and production.**

The main objective of the project is to improve the competitiveness of European shipyards by supporting SME naval architects, shipbuilders and ship-owners through:

- improving their capability to reduce the time and costs of design and production
- developing the ability to reliably produce better ship concepts through virtual prototyping
- meeting the increasing requirements for LCCA (Life Cycle Cost Analysis), environmental assessments, risk assessments and end-of-life considerations as differentiators

The development work in the project applies to two main areas:

- virtual prototyping and simulation modelling
- SHIPLYS life cycle suite of tools that include LCCA, environmental and risk assessments and multi-criteria decision support modules

The idea is to develop and integrate rapid virtual prototyping tools with life cycle tools that will be compatible with existing early design software.



SHIP LIFECYCLE SOFTWARE SOLUTIONS




SHIPLYS consortium comprises of 12 participants from 7 countries as follows:

- TWI Ltd (UK)
- FUNDACION CENTRO TECNOLOGICO SOERMAR (Spain)
- National Technical University of Athens NTUA (Greece)
- Atlantec Enterprise Solutions GmbH (Germany)
- University of Strathclyde (UK)
- Astilleros de Sandander SA (Spain)
- Instituto Superior Tecnico (Portugal)
- Varna Maritime Limited (Bulgaria)
- Ferguson Marine Engineering Ltd (UK)
- as2con - alveus L.L.C (Croatia)
- BMT Group Ltd (UK)
- Lloyd's Register EMEA IPS (UK)



This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 690770
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Figure 7: First project newsletter



SHIP LIFECYCLE SOFTWARE SOLUTIONS

Newsletter 2, May 2018



SHIPLYS (Ship Lifecycle Software Solutions) project aims to improve the competitiveness of the European SME shipyards by reducing the time and cost involved in ship design and production. It will result in a software tool that integrates early ship design tool with life cycle, environmental and risk assessment tools. The tool will support SME shipyards and design offices in responding to new building or ship retrofitting tenders.

The three-year Horizon 2020 project started in September 2016 and gathers a team of 12 partners.

Work completed

- Obtaining and analysing the end-users' needs using the Quality function deployment method
- Selecting the SHIPLYS design scenarios and addressing their needs
- Collecting the relevant data and parameters for early ship design and LCA
- Selecting the existing software tools to be used within SHIPLYS

Work in progress

- Software tools' integration
- LCA implementation

Following detailed analysis of various users' needs, it was decided that among others, **SHIPLYS** will integrate at least:


- IST tool** - concept design tool (IST)
- RSET** - tool for compartment arrangement (BMT)
- CAFE** - 3D design tool (BVB)
- LR SLASAFE** - stability calculations (LR)
- RulesCalc** - determination of scantlings (LR)
- Topgallant** - shipyard production simulation software (AES)
- LCT tool** - life cycle analysis (USTRATH)





SHIP LIFECYCLE SOFTWARE SOLUTIONS

www.shiplys.com



Three case scenarios

The functionalities of the SHIPLYS tool will be tested through three relevant ship case scenarios:

- 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

Publications

After the first year, project results were presented at International Maritime Association of the Mediterranean (**IMAM 2017**) in Lisbon, Portugal. Besides the project partners, the special session gathered members of the SHIPLYS Stakeholder Advisory Committee where the following papers were presented:

- An overview of the project
- Three ship case scenarios
- SHIPLYS end-users' requirements
- Investment cost estimate accounting for shipbuilding constraints
- Challenges with data availability and quality during LCCA calculations
- Framework for multi-criteria decision analysis
- LCCA on engine selection
- Refactoring early ship design methodology

Public project deliverables

Several project deliverables are completed and available to public:

- Selected scenarios
- Business case and ROI
- Existing approaches in shipbuilding industry
- SHIPLYS model and data requirements
- Requirements for the integration of SHIPLYS tools and existing tools
- Initial dissemination and business plan activities

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



Project partners visiting Ferguson Marine shipyard within 2nd Consortium meeting in Glasgow

Project Consortium:





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Figure 8: Second project newsletter

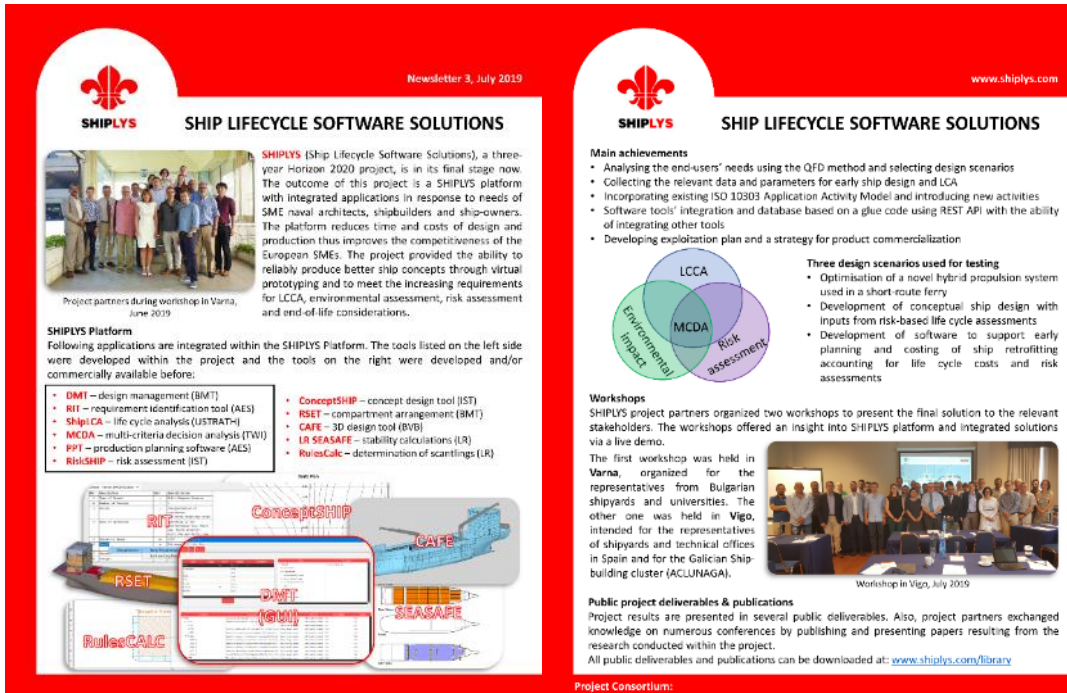


Figure 9: Third project newsletter

5.4 Banner



Figure 10: SHIPLYS Banner during the workshop in Vigo, July 2019

Another promotional material created was the project banner (see **Error! Reference source not found.**). It was prepared by TWI prior to the IMAM conference in October 2017 where the SHIPLYS project had a special session. It was also used for all other organised events to decorate the venue of the workshops or project meeting.

5.5 Achieved impact

Project newsletters were sent via a MailChimp provider and distributed to as2con’s list of clients and partners containing around 2000 predominantly European contacts including industry partners, the scientific community and other members of the maritime community.

They are also available for download at the project website: <http://www.shiplys.com/library/newsletter-and-press-releases/>

The performance indicators for each newsletter are shown in Table 5.

Table 5: Newsletters’ performance statistics

	Number of recipients (successful deliveries)	Opened	Open rate	Total clicks
Newsletter 1	1794	510	28.4 %	144
Newsletter 2	1677	378	22.5 %	89
Newsletter 3	826	235	28.5 %	100

630 copies of the project flyer were printed, and it was mainly distributed at:

- IMAM conference
- Posidonia exhibition
- Joint workshop with HOLISHIP
- Workshops in Varna and Vigo

Digital copies of the newsletters and the flyer were also shared via social networks and partners’ company websites.

6 Partners’ website and social media impact

According to the table of dissemination activities, project partners shared SHIPLYS project news and findings via their companies’ websites and social networks (Facebook, LinkedIn). Achieved impact for published news on a website is measured by the number of views, and the impact for social media is measured by the number of impressions for each post that have been shared.

Table 6 shows the analysis of partners’ news sharing, and an example is given in Figure 11.

Table 6: Published news on partners’ website and social networks

Partner	Indicator
as2con	Number of shared news on as2con website: 10 Average number of views per news: 500
	Number of Facebook posts: 10 Average people reached per post: 97
	Number of LinkedIn posts: 10 Average number of impressions per post: 140
UStrath	Number of shared news on UStrath NAOME’s website: 1
	Research gate: SHIPLY community – 12 followers, 65 reads
	Number of posts in a staff blog: 8
NTUA	Research gate – SHIPLY: 18 followers, 135 reads
IST	Research gate – IST-SHIPLY publications more than 700 readers
TWI	Number of newsletters, press releases and news events on TWI website: 6
	Number of shared case studies and publications on TWI website: 3
	Number of LinkedIn posts: 3



Figure 11: Example of news published on as2con’s website

7 Technical publications

Technical publications in the project represent project deliverables with a dissemination level marked as public. They are:

- D2.1 A report on selected scenarios and the rationale for such selection (NTUA)
- D2.2 A report on business case and ROI (as2con)
- D3.1 Existing prototyping models and approaches in shipping and other industry sectors (AES)
- D3.2 A report on SHIPLY model and data requirements (FERG)

- D3.3 A report on requirements for the integration of SHIPLYS tools and compatibility with existing tools (BMT)
- D4.2 A report on assessing data quality and its criticality in assessments (NTUA)
- D6.4 Overview of SHIPLYS rapid virtual design and production process prototyping functionality (SOERMAR)
- D8.2 SHIPLYS good practice guide (LR)
- D9.1 SHIPLYS dissemination strategy (as2con)
- D9.2 SHIPLYS dissemination activities carried out (as2con)
- D9.3 SHIPLYS Intellectual Property protection strategy (TWI)
- D9.4 Initial exploitation and business plan (NTUA)
- D9.5 Final exploitation and business plan (NTUA)
- D9.6 Training strategy (AES)
- D9.7 SHIPLYS software and its functionality in relation to existing standards and potential for inputs to future standards (UStrath)

These deliverables are publicly available via the project webpage: <http://www.shiplys.com/library/deliverables/>

8 Participation in conferences, events, seminars

8.1 Details

Project partners were very active in presenting the project results in scientific journals, conferences and similar events (see example in Figure 12). Table 7 shows the list of all events that were reported in the table of dissemination activities, and a total of 33 papers were published. The full list of papers can also be found on the project website where all the papers are publicly available.

An event of significant interest was IMAM conference in 2017 (Figure 13), where a special session for SHIPLYS project was organised, and project partners presented new results and discoveries through ten scientific papers. Also, this special session was dedicated to presenting five software solutions that are part of the SHIPLYS platform. All papers have been published in a book of conference proceedings.

Table 7: List of attended events

Partners Involved	Conference/Exhibition	Date	Place	Number of visitors (approx.)
LR	Annual Royal Inst. Of Naval Architects Event	27 April 2017	London, UK	
IST	MARSTRUCT – International Conference on Marine Structures	8-10 May 2017	Lisbon, Portugal	
TWI	H2020 Waterborne Research Conference	08 June 2017	Brussels, Belgium	

Partners Involved	Conference/Exhibition	Date	Place	Number of visitors (approx.)
IST	OMAE2017 - 36th International Conference on Ocean, Offshore and Arctic Engineering	25-30 June 2017	Trondheim, Norway	1.000
ALL	IMAM – International Maritime Association of the Mediterranean	09-11 Oct 2017	Lisbon, Portugal	150
VARNA	ENMC - Annual meeting of European Network of Maritime Clusters	25-26 Oct 2017	Elsinore, Denmark	15-18 (main representatives of national maritime clusters)
AES	COMPIT – Conference on Computer Applications and Information Technology in the Maritime Industry	14-16 May 2018	Pavone, Italy	70 (50:50 from industry and academia)
USTRATH, IST, VARNA	MARTECH – International Conference on Marine Technology	7-9 May 2018	Lisbon, Portugal	120
NTUA	POSIDONIA – The International Shipping Exhibition	4-8 June 2018	Athens, Greece	23.500
ALL	Joint workshop SHIPLYS-HOLISHIP-LINCOLN	June 2018	Brussels, Belgium	60
IST	OMAE2018 - 37th International Conference on Ocean, Offshore and Arctic Engineering	17-22 June 2018	Madrid, Spain	1.000
UStrath	EKC – Europe-Korea Conference on Science and Technology	20-24 Aug 2018	Glasgow, UK	700
as2con	SORTA (Symposium on the Theory and Practice of Shipbuilding)	27-29 Sep 2018	Split, Croatia	200
UStrath	COO – Coastal, Offshore and Ocean Engineering Conference	26 Oct 2018	Gdansk, Poland	40
VARNA	ENMC - Annual meeting of European Network of Maritime Clusters	15-16 Oct 2018	Malta	15-18 (main representatives of national maritime clusters)
UStrath	YRS2019 - Young Researchers Seminar	5-7 April 2019	Thessaloniki, Greece	60
UStrath, NTUA	MOSES 2019 - International Conference on Modelling and Optimisation of Ship Energy Systems	8-10 May 2019	Glasgow, UK	60

Along with the publishing in the conference proceedings, some partners also published their papers in the scientific journals which are listed in Table 8. Their impact is measured by the average number of citations per paper.

Table 8: List of journals that published SHIPLYS papers

Partners Involved	Journal	Impact factor
UStrath	Journal of Cleaner Production	5,65 (average number of citations per document)
IST	International Journal of Engineering Innovation & Research	NA
IST, UStrath	Ocean Engineering	2,21 (average number of citations per document)
UStrath	Applied Energy	7,90 (average number of citations per document)
IST	Portuguese Journal Economia do Mar	NA
VARNA	Bulgarian Maritime Encyclopedia 2016	NA



Figure 12: SHIPLYS presentation during the ENMC meeting, 2017



Figure 13: SHIPLY presentations during the IMAM conference, 2017

8.2 Achieved impact

Achieved impact from participating at relevant events can be measured by the number of visitors for each event or the number of readers reached by publishing papers in scientific journals.

The indicators of measured impact can be seen in the last columns of Tables 7 and 8, which show an approximate number of people who have been given an opportunity to assess the results of the SHIPLY project.

9 Organising workshops

9.1 Overview

One way of disseminating the project results was to organise workshops in order to get the best insight into feedback from interested parties.

The first workshop was intended to provide knowledge exchange with other EU funded projects while the others were training workshops that were held towards the end of the project.

9.2 Joint workshop with HOLISHIP and LINCOLN

At the middle of the project, a knowledge exchange workshop was organised in coordination with the consortium of the EU funded projects HOLISHIP (Holistic optimisation of SHIP design and operation for life cycle) and LINCOLN (Lean Innovative Connected Vessels).

The HOLISHIP project gathers a team of 40 partners whereas LINCOLN gathers a team of 17 partners.

HOLISTIC SHIP DESIGN WORKSHOP



Figure 14: Participants at joint workshop in Brussels, May 2018

Around 60 participants (Figure 14) attended the joint workshop with the aims of updating each other and EU representatives about the projects' progress, identifying common objectives and possible areas of collaboration, and facilitating the exchange of technical information.

The outcome of this workshop was a signed non-disclosure agreement (NDA) between the HOLISHIP and SHIPLYS partners for collaboration in the development of life cycle tools.

9.3 Workshop in Astander

A two-day training workshop on 13 and 14 June 2019 took place in Santander in Spain with the aim of verifying the usage of the prototype PPT (Production Planning Tool) for retrofitting projects developed by AES within SHIPLYS. The stakeholders were represented by the project partner ASTANDER shipyard and the technology centre and foundation SOERMAR. The individual participants from the shipyard were the General Manager, Production Manager, Project Manager, Ship Manager and Head of R&D. The participants from SOERMAR were the Technical Manager and Research Assistant.

The agenda contained the following sessions led by AES:

- *Overview/Introduction* – retrofitting scenario and developed prototypes
- *Catalogue Data Management* – usage was explained based on material and equipment, SFI-grouping codes and task template management
- *Rapid definition of data* – demonstration use cases were based on project-specific material, equipment and tasks
- *Rapid Scheduling* – creation and optimisation of schedule for retrofitting tasks and definition of facility model and human resources have been demonstrated and evaluated

- *Reporting functionality* – examples of automatic creation of cost and retrofitting task reports were shown and reviewed

Feedback for the prototype was received, and suggestions for additional functionality were discussed. Furthermore, future developments were presented by AES and use cases have been evaluated to be used for benefit verification. Finally, a plan for further testing of the prototype on the shipyard was agreed.

9.4 Workshop in Varna

On 27 June 2019, the SHIPLYS project consortium organised a training workshop in Varna, Bulgaria to demonstrate the final SHIPLYS solution to the stakeholders, representing mainly shipyards and universities from Bulgaria. This workshop offered an insight into the SHIPLYS platform and integrated applications which were presented via a live demonstration.

The workshop was divided into the following sessions:

- *Ship Lifecycle Software Solutions (SHIPLYS) – objectives, developments and achievements* – presented by project coordinator Ujjwal Bharadway (TWI) and giving the introduction on the project.
- *SHIPLYS Software Platform: description and potential use in SME ship design, building and repair* – presented by Thomas Koch (AES) and giving the technical background of the project.
- *Demo slides on SHIPLYS Platform applied to Early design stage for new building ship* – presented by Darko Frank (as2con) accompanied by SHIPLYS application developers and giving the overview of all integrated applications to be used for the new building case scenario. With the live demonstration, application developers showed the usage of the platform and integrated solutions based on the example case for a new build (Figure 15).
- *SHIPLYS Application for hybrid propulsion solutions* – presented by Ana Mesbahi (UStrath) where the usage of SHIPLYS platform integrated application for life cycle analysis was shown for the purpose of propulsion optimisation.
- *SHIPLYS Application for retrofitting/ repairs* - presented by Andreas Roppelt (AES) and giving an overview of the usage of SHIPLYS platform for the retrofitting planning with the Production Planning Tool (PPT) application.
- *Performance management at shipyard* – presented by Xiaofei Cui (TWI) and providing insight into the usage of a multi-criteria decision tool within the platform.
- *SHIPLYS Platform and Applications: Exploitation and Costs* – presented by Arijana Milat (as2con) and giving a business overview of the platform with a description of the offered product and the exploitation strategy.



Figure 15: Live demo during SHIPLYS workshop in Varna

The workshop gathered around 20 SHIPLYS project partners and 20 representatives from Bulgarian universities, shipyards and technical offices (Figure 16). The list of participating organisations is presented in Table 9, and the full list of participants can be found in Appendix D.

Table 9: List of participating organisations in SHIPLYS workshop in Varna

UNIVERSITIES & TECHNICAL INSTITUTES	Technical University – Varna VARNA SCIENTIFIC AND TECHNICAL UNIONS (VSTU) Bulgarian Ship Hydrodynamics Centre (BSHC) High - Technology Park - Technical University Varna Ltd.
SHIPYARDS	TEREM-SHIPYARD Flotski Arsenal – Varna Varna Maritime Ltd.
TECHNICAL OFFICES	PAN EUROPIAN TREYDING AND INZHENERING VARSHYP DESIGN LTD. ATGD Manning Ltd. Marino Consulting Ltd.
CLUSTER	Marine Cluster Bulgaria

Also, representatives from the LINCOLN and RAMSSES projects presented their work progress within two special sessions.

As an outcome of this workshop, the SHIPLYS project received feedback from different stakeholders where, during the Q&A session, they expressed their opinions on the SHIPLYS platform and provided an insight into what needs to be improved.



Figure 16: SHIPLYS project partners and participants during the workshop in Varna, June 2019

9.5 Workshop in Vigo

The workshop followed the same layout and sessions as in the previous workshop held in Varna as the idea was to organise a similar workshop but in a different location, with the invited stakeholders this time mostly from Spain.



Figure 17: SHIPLYS project partners and participants during the workshop in Vigo, July 2019

This workshop took place in Vigo, Spain, on the 10 July 2019, and gathered around 40 participants, SHIPLYS partners and representatives from Spanish shipyards and technical offices (Figures 17 and 18). The full list of external organisations that participated is presented in Table 10 (see also Appendix E).

Table 10: List of participating organisations in SHIPLYS workshop in Vigo

SHIPYARDS	C. N. P. Freire (both factories, SHIPBUILDING & SHIPREPAIR)
	H.J. Barreras (SHIPBUILDING).
	Astilleros Cardama (SHIPBUILDING & SHIPREPAIR)
	NODOSA Industrial group (SHIPBUILDING & SHIPREPAIR)
	NAVANTIA (public group SHIPBUILDING & SHIPREPAIR)
	Reparaciones Náuticas AMURA, S.L. (SHIPREPAIR)
TECHNICAL OFFICES	SERMARINE. Technical Office for conceptual, basic and detailed engineering
	S.L. FAUSTINO CARCELLER S.L., a Naval Architecture Office, specialised since 1988 in providing Consultancy and Naval Architecture services.
AUXILIARY INDUSTRIES	GEFICO ENTERPRISE, a leading company that designs, develops and supplies water treatment solutions, with more than 7000 offshore and inland installations
	Naval Cervera, a company specialised in marine rescue and nautical sports
ACLUNAGA	The Galician Ship-building cluster (ACLUNAGA) emerged in 1999 as a boosting tool for this sector, as well as being the meeting point between the business sector and shipbuilding sector agents. Currently, 131 members participate in the Cluster. Their products and services cover all the segments of the value chain of the shipbuilding and maritime sector
STAKEHOLDER ADVISORY COMMITTEE (SAC)	SENER Ingeniería y Sistemas, S.A, Spain
	Varna Scientific And Technical Unions (VSTU), Bulgaria



Figure 18: Live demo during SHIPLYS workshop in Vigo

10 Concluding remarks

This document presents the dissemination activities conducted for the entire duration of the project with the indicators measuring the achieved impact.

Completed activities include completion of the official project website, conference attendance, publications of scientific papers and technical papers, creation and distribution of promotional material such as the flyer, newsletters and banner as well as the organisation of project workshops.

All activities were accomplished with collaboration from all consortium partners that was achieved during the project meetings and through everyday correspondence.

This report has benefitted from inputs from all members of the SHIPLYS consortium, and their contribution is gratefully acknowledged.

Appendix A Table of dissemination activities

Partner	Other involved partner	Type of dissemination activity	Description	Content	Status	Timing
1-TWI		Press Release	Posted on TWI Corporate website	General information about the project	done	01/10/2016
1-TWI	ALL	Internet/ Company Website/Post in social networks	Website shiplys.com created with public information; will be updated regularly	General information about the project	ongoing	Ongoing activity
1-TWI		Cooperation with other R&D Projects	In contact with HOLISHIP and LINCOLN; the full extent and method of cooperation to be discussed with SHIPLYS consortium. Shared press release with HOLISHIP; likewise, distributed HOLISHIP press release to SHIPLYS consortium. Attended cluster meeting (10 Mar 2017) with HOLISHIP and LINCOLN project coordinators - notes from the meeting uploaded to SHIPLYS portal. Attended first LINCOLN Advisory Board online seminar (15 Mar 2017).	Project / WP presentation	ongoing	Ongoing activity
1-TWI		Other diss. activity (explain)	Respond to web queries at shiplys.com	General information about the project	ongoing	Ongoing activity
1-TWI		Project Publication	Publication schedule will depend on developments within the project	Dissemination of project / WP results	ongoing	Ongoing activity
1-TWI		Participation in congress or conference	We expect to publish/ present technical papers during congresses/ conferences; precise schedule will depend on progress made in the project	Dissemination of project / WP results	ongoing	Ongoing activity
1-TWI	Co-operation with other partners (TBD)	Project Publication	TWI will publish two papers in IMAM2017 conference U.R. Bharadwaj et al: Ship Lifecycle Software Solutions (SHIPLYS) – an overview of the project, its first phase of development and challenges, IMAM 2017 X. Cui, U. R. Bharadwaj and P. Zhou: A framework for multi-criteria decision analysis (MCDA) applied to conceptual stage of ship design, IMAM 2017	General information about the project	done	11.10.2017.

Partner	Other involved partner	Type of dissemination activity	Description	Content	Status	Timing
1-TWI	Co-operation with other partners (TBD)	Cooperation with other R&D Projects	Meeting held with HOLISHIP Project representatives in Hamburg	Knowledge exchange	done	23.02.2017
1-TWI		Cooperation with other R&D Projects	Cluster meeting with LINCOLN and HOLISHIP project representatives	Knowledge exchange	done	10.03.2017
1-TWI		Cooperation with other R&D Projects	Participation in LINCOLN Project's Advisory Board teleconference	Knowledge exchange	done	15.03.2017
1-TWI		Information / knowledge exchange	Presentation made in Varna Conference (http://www2.tu-varna.bg/tu-varna/index.php/novini/predstoyashto/628-konferentziya-za-evropeiski-morski-izsledvaniya-inovatzii-i-konkurenten-rastezh-na-malki-i-sredni-predpriyatiya-17-mai-2017)	Project / WP presentation	done	17.03.2017
1-TWI		Participation in congress or conference	Presentation made at the H2020 Waterborne Research Conference: Brussel	Project / WP presentation	done	08.06.2017
1-TWI		Cooperation with other R&D Projects	Participation in LINCOLN Project's Advisory Board teleconference	Knowledge exchange	done	19.06.2017
1-TWI		Participation in fair / exhibition	Banner prepared for various future use	General information about the project	done	
1-TWI		Internet/ Company Website/Post in social networks	SHIPLYS website updated with news and events	General information about the project	ongoing	Ongoing activity
1-TWI		Internet/ Company Website/Post in social networks	Posted project newsletter on TWI Corporate website	General information about the project	done	04.12.2016

Partner	Other involved partner	Type of dissemination activity	Description	Content	Status	Timing
1-TWI		Internet/ Company Website/Post in social networks	Posted papers published on IMAM2017 on TWI Corporate website	Project / WP presentation	done	n.a
1-TWI		Internet/ Company Website/Post in social networks	Posted SHIPLYS case study on TWI Corporate website	General information about the project	done	21.07.2017
1-TWI		Internet/ Company Website/Post in social networks	SHIPLYS website enhanced with additional functionalities	Dissemination of project / WP results	ongoing	Ongoing activity
1-TWI		Information / knowledge exchange	Periodic contact made with SHIPLYS Stakeholders' Advisory Committee members to inform them of developments within the project and to prepare them for the meeting on the 11th of October 2017 in Lisbon	Knowledge exchange	done	11.10.2017
1-TWI		Internet/ Company Website/Post in social networks	Periodic contact made with SHIPLYS Stakeholders' Advisory Committee members to inform them of developments within the project	Knowledge exchange	ongoing	Ongoing activity
1-TWI	ALL	Information / knowledge exchange	Prepare and participate to the joint workshop with HOLISHIP and LINCOLN project	Knowledge exchange	ongoing	31.05.2018
1-TWI	ALL	Working / business contact	First SAC meeting is scheduled.	Project / WP presentation	done	11.10.2017.
1-TWI		Internet/ Company Website/Post in social networks	SHIPLYS project summary was published at EIBIP website (https://eibip.eu/publication/shiplys/)	General information about the project	done	05/09/2018
1-TWI		Cooperation with other R&D Projects	Attending LINCOLN Stakeholders' Advisory Committee	Knowledge exchange	planned	16/11/2018
1-TWI	ALL	Other diss. activity (explain)	SHIPLYS workshop in Varna including liaison with LINCOLN and RAMSSES projects	Project / WP presentation	done	27-28 June 2019

Partner	Other involved partner	Type of dissemination activity	Description	Content	Status	Timing
1-TWI		Information / knowledge exchange	Participated in a global workshop on ship decommissioning and presented SHIPLYS KPI-based approach with a view to using the same approach in ship decommissioning. https://www.raeng.org.uk/events/events-programme/2019/july/global-workshop-safer-decommissioning-of-offshore	Knowledge exchange	done	8-9 July 2019
1-TWI	ALL	Other diss. activity (explain)	SHIPLYS workshop in Vigo	Project / WP presentation	done	11-12 July 2019
1-TWI		Cooperation with other R&D Projects	Participation in LINCOLN Project's Advisory Board meeting in Italy	Knowledge exchange	planned	26-27 Sept 2019
1-TWI		Internet/ Company Website/Post in social networks	Linkedin post regarding workshops held in Vigo and Varna at TWI page	General information about the project	done	15/08/2019
1-TWI		Internet/ Company Website/Post in social networks	Linkedin post regarding the progress of the project, such as project meetings	General information about the project	ongoing	
1-TWI		Post in social networks	Linkedin post regarding a collaboration work between TWI and ATD	Project / WP presentation	done	01/05/2019
1-TWI	Co-operation with other partners (TBD)	Project Publication	Publish a paper regarding production performance optimisation	Dissemination of project / WP results	planned	31/12/2019
1-TWI		Project Publication	Publish a chapter on SHIPLYS in the HOLISHIP book	Dissemination of project / WP results	Planned	2020
2-SOERMAR		Internet/ Company Website/Post in social networks	News and a link to the SHIPLYS web site will be added to the SOERMAR web site	General information about the project	done	November 2016

Partner	Other involved partner	Type of dissemination activity	Description	Content	Status	Timing
2-SOERMAR		Internet/ Company Website/Post in social networks	Introduce newsletter SHIPLYS in pdf format to the SOERMAR web site	General information about the project	done	April 2018
2-SOERMAR		Internet/ Company Website/Post in social networks	IMAM 2017 - PAPER	Dissemination of project / WP results	done	April 2018
2-SOERMAR	Co-operation with other partners (TBD)	Other diss. activity (explain)	SHIPLYS Workshop in SPAIN	Knowledge exchange	done	July 2019
2-SOERMAR	Co-operation with other partners (TBD)	Participation in congress or conference	Submit and present paper at IMAM 2017 Conference. A. Porras, L. Herrera, A. Carneros and J.I. Zanón: Scenario 3 – Life Cycle and virtual prototyping requirements for ship Repair Projects, IMAM 2017	Knowledge exchange	done	Oct. 2017
3-AES		Internet/ Company Website/Post in social networks	News about start of project posted on company website (atlantec-es.com/atlantec-es.eu), link to shiplys.com	General information about the project	done	September 2016
3-AES		Project Publication	D3.1 Existing prototyping models and approaches in shipping and other industry sectors	Dissemination of project / WP results	done	April 2017
3-AES		Working / business contact	Discuss/Propose participation of 3rd party contacts in Advisory board: Sener/Foran	Dissemination of project / WP results	done	March 2017
3-AES		Participation in congress or conference	Submit and present paper at IMAM 2017: "Refactoring Early Ship Design Methodologies"	Knowledge exchange	done	October 2017
3-AES		Internet/ Company Website/Post in social networks	News about project posted on company website (atlantec-es.com/atlantec-es.eu), to be updated on a regular basis, e.g. in conjunction with major meeting, conference events, project newsletters etc.	Dissemination of project / WP results	ongoing	August 2019

Partner	Other involved partner	Type of dissemination activity	Description	Content	Status	Timing
3-AES		Cooperation with other R&D Projects	HOLISHIP project exchange/cooperation	Knowledge exchange	planned	October 2019
3-AES		Internet/ Company Website/Post in social networks	Company website: News about SHIPLYS session at IMAM and post of abstract of IMAM-paper; prepared for Open Access (download) for deliverable reports; post of Executive Summary of D3.1.	Dissemination of project / WP results	ongoing	
3-AES		Participation in congress or conference	Preparing for COMPIT 2018 / Registration, submission of paper	Dissemination of project / WP results	done	March 2018
3-AES		Participation in congress or conference	Presentation of project's approach for integrated framework services of SHIPLYS platform at the COMPIT conference in Pavone, Italy, 14-16 May 2018. Title of paper: Cloudless Skies in Early Design? Link: https://www.atlantec-es.com/files/Downloads/COMPIT-AES-Paper-2018.pdf	Dissemination of project / WP results	done	May 2018
3-AES		Internet/ Company Website/Post in social networks	Posting of Project Newsletter on company website	Dissemination of project / WP results	done	July 2018
3-AES		Internet/ Company Website/Post in social networks	Upload of D9.6 SHIPLYS Training Strategy	Dissemination of project / WP results	done	March 2019
3-AES		Other diss. activity (explain)	Dissemination and Training Workshops held at Astander, Varna and in Vigo	Dissemination of project / WP results	done	June+July 2019
3-AES		Internet/ Company Website/Post in social networks	Posting of Project Newsletter on company website	Dissemination of project / WP results	ongoing	August 2019
3-AES		Cooperation with other R&D Projects	Interaction with HOLISHIP	Knowledge exchange	planned	post project

Partner	Other involved partner	Type of dissemination activity	Description	Content	Status	Timing
4-UStrath		Internet/ Company Website/Post in social networks	News was posted on the department's website	General information about the project	done	12/10/2016
4-UStrath		Participation in congress or conference	Conference in Lisbon (IMAM 2017): Life Cycle Assessment for Optimising Engine Configuration and Operation of an Offshore Tug Vessel https://docs.wixstatic.com/ugd/dd0035_502d14f15eeb4a51851d52af3ae82b65.pdf	General information about the project	done	01/10/2017
4-UStrath		Participation in congress or conference	Conference in Lisbon (IMAM 2017): Optimisation of Operational Modes of Short-Route Hybrid Ferry: A Life Cycle Assessment Case Study https://docs.wixstatic.com/ugd/dd0035_b1e037e49a334ea0ba24ade56d482e29.pdf	Dissemination of project / WP results	done	01/10/2017
4-UStrath		Project Publication	D5.1 SHIPLYS LCCA and environmental assessment software module with a report	Dissemination of project / WP results	done	01/12/2018
4-UStrath		Project Publication	D6.2 Software deliverable : Rapid prototyping	Knowledge exchange	done	01/03/2018
4-UStrath		Project Publication	D9.7 SHIPLYS software and its functionality in relation to existing standards and potential for inputs to future standards	Dissemination of project / WP results	ongoing	31/08/2019
4-UStrath		Other diss. activity (explain)	Publishing Journal Papers: JeongB., Wang H., Oguz E., Zhou P. 2018. An Effective Framework for Life Cycle and Cost Assessment for Marine Vessels Aiming to Select Optimal Propulsion Systems. Journal of Cleaner Production. accepted for publication on 19-03-2018, published and online available 20-03-2018. https://www.sciencedirect.com/science/article/pii/S0959652618308552 ; https://zenodo.org/record/1206134#.XKSs75hKi70 ; https://haibinwang.wixsite.com/shiplies/an-effective-framework-for-life-cyc	Dissemination of project / WP results	done	19/03/2018
4-UStrath		Participation in congress or conference	Conference in Lisbon (MARTECH 2018): Life cycle and cost performance analysis on ship structural maintenance strategy of a short route hybrid. Accepted 13-03-2018.	Dissemination of project / WP results	done	13/03/2018

Partner	Other involved partner	Type of dissemination activity	Description	Content	Status	Timing
4-UStrath		Other diss. activity (explain)	Publishing Journal Papers: Haibin Wang, Elif Oguz, Byongug Jeong, Peilin Zhou, Life cycle cost and environmental impact analysis of ship hull maintenance strategies for a short route hybrid ferry, Ocean Engineering, Volume 161, 2018, Pages 20-28, ISSN 0029-8018, https://doi.org/10.1016/j.oceaneng.2018.04.084 ; https://zenodo.org/record/1248552#.XKStQ5hKi70 ; https://haibinwang.wixsite.com/shiplies/life-cycle-cost-and-environmental-i	Dissemination of project / WP results	done	01/08/2018
4-UStrath		Participation in congress or conference	EKC2018 Conference in Glasgow: Byongug Jeong, Application of life cycle assessment for optimal decision-making in marine industry.	Dissemination of project / WP results	done	22/08/2018
4-UStrath		Other diss. activity (explain)	Publishing Journal Papers: Byongug Jeong, Elif Oguz, Haibin Wang, Peilin Zhou, Multi-Criteria Decision Making for Marine Propulsion: Hybrid, Diesel Electrical and Diesel Mechanical Systems from Cost-Environment-Risk Perspectives. Applied Energy. Accepted on 07-09-2018. https://doi.org/10.1016/j.apenergy.2018.09.074 ; https://zenodo.org/record/2599889#.XKStbJhKi70 ; https://haibinwang.wixsite.com/shiplies/multi-criteria-decision-making-for	Dissemination of project / WP results	done	07/09/2018
4-UStrath		Other diss. activity (explain)	Publishing Journal Papers: Life Cycle and Economic Assessment of a Solar Panel Array Applied to a Short Route Ferry. Accepted 11 February 2019, Available online 12 February 2019. https://www.sciencedirect.com/science/article/pii/S095965261930513X?via%3Dihub ; https://zenodo.org/record/2599887#.XKStm5hKi70 ; https://haibinwang.wixsite.com/shiplies/life-cycle-and-economic-assessments	Dissemination of project / WP results	done	11/02/2019
4-UStrath		Participation in congress or conference	Conference in Gdansk (COO 2018): Application of Solar Panel Array on a Short Route Ferry: A Life Cycle and Economic Assessment. 26/10/2018	Dissemination of project / WP results	done	26/10/2018
4-UStrath		Participation in congress or conference	Conference in Greece (YRS2019): Haibin Wang, Yibo Liang, Byongug Jeong, Ana Mesbahi, Peilin Zhou, Configurations Optimization of a Tug Ship Propulsion System: A Life Cycle Assessment Case Study. Published.	Dissemination of project / WP results	done	5-7/04/2019

Partner	Other involved partner	Type of dissemination activity	Description	Content	Status	Timing
4-UStrath		Other diss. activity (explain)	Publishing Journal Papers: Yibo Liang, Yu Ma, Haibin Wang, Ana Mesbahi, Byongug Jeong, Peilin Zhou, Levelised cost of energy analysis for offshore wind farms – A case study of the New York State development. Under review.	Dissemination of project / WP results	ongoing	Ongoing activity
4-UStrath		Participation in congress or conference	Conference in Glasgow (MOSES 2019): Haibin Wang, Peilin Zhou, Life cycle assessment as an evaluation tool for carbon reduction techniques in marine industry. Published.	Dissemination of project / WP results	done	8-10/05/2019
4-UStrath		Participation in congress or conference	Conference (TRA 2020): Haibin Wang , Yibo Liang, Yu Ma, Ana Mesbahi, Byongug Jeong, Peilin Zhou, Application of Solar Panel Array on a Short Route Ferry: A Life Cycle and Economic Assessment. Abstract submitted.	Dissemination of project / WP results	planned	Ongoing activity
4-UStrath		Other diss. activity (explain)	Publishing Journal Papers: Optimization of Tugboat Propulsion System Configurations: A Holistic Life Cycle Assessment Case Study. Planned.	Dissemination of project / WP results	planned	Ongoing activity
5-ATD	All partners	Working / business contact	Discuss/Propose participation of our customers	General information about the project	done	September 2016 until final job
5-ATD	All partners	Internet/ Company Website/Post in social networks	News and a link to the SHIPLYS web site will be added to the Astander web site	General information about the project	ongoing	News web site done
5-ATD	All partners	Participation in congress or conference	Conference in Lisbon (IMAM 2017)	Dissemination of project / WP results	ongoing	October 2017
5-ATD		Internet/ Company Website/Post in social networks	Sharing the news on SHIPLYS project in a company newsletter	General information about the project	done	March 2018
6-NTUA		Internet/ Company Website/Post in social networks	https://www.researchgate.net/project/Ship-Lifecycle-Software-Solutions-SHIPLYS?amp%3B_sg=Myd0crz1E4As1M_90vI9Rw1qhQDYaMQiEM4zNZ2glwAoz3dAXOwgtD27IPnP05neKPowwld-NtPYaZtKEZ0HLw 87 followers	General information about the project	done	

Partner	Other involved partner	Type of dissemination activity	Description	Content	Status	Timing
6-NTUA		Internet/ Company Website/Post in social networks	News and a link to the SHIPLYS web site will be added to the web sites of the Shipbuilding Technology Laboratory and the Laboratory for Maritime Transport of NTUA	General information about the project	done	June 2017
6-NTUA	Co-operation with other partners (TBD)	Participation in congress or conference	Presentation of a technical paper during IMAM 2017 conference. Title: "Challenges and Problems with Data Availability and Quality during LCCA Calculations in the Early Ship Design Phases". www.martrans.org/shiplys2.html	Dissemination of project / WP results	done	9-11 October 2017
6-NTUA		Participation in congress or conference	Presentation of a technical paper during the 2nd International conference on Modelling and Optimisation of Ship Energy Systems (MOSES2019). Title: Novel Technical Perspectives for Alternative Commercial Use of Old LNG Carriers	Dissemination of project / WP results	done	May 2019
6-NTUA		Participation in fair / exhibition	Presentation of the project progress and results in various national shipping fora in Piraeus. Presentation of a technical paper at the 2019 annual meeting of the Hellenic Institute of Marine Technology (HIMT), November 2019. Title: Innovative Methodology for Small Shipyard Cost Estimation based on Lifecycle Assessment	Dissemination of project / WP results	ongoing	After the end of the project
6-NTUA	Co-operation with other partners (TBD)	Participation in fair / exhibition	Participation in POSIDONIA 2018	Dissemination of project / WP results	done	June 2018
6-NTUA		Other diss. activity (explain)	The educational material of the following undergraduate and postgraduate courses of the School of Naval Architecture and Marine Engineering will be enriched with information from the SHIPLYS project results: 1) Shipbuilding Technology, 7th semester 2) Maritime Transport Economics, 7th semester 3) Shipping Finance, 8th semester 4) Maritime Transportation Systems, postgraduate course	Dissemination of project / WP results	ongoing	After the end of the project

Partner	Other involved partner	Type of dissemination activity	Description	Content	Status	Timing
7-IST		Project Publication	Journal paper about the objectives, expected impact and consortium of the SHIPLYs project is published in the Portuguese Journal <i>Economia do Mar</i>	General information about the project	done	October 2016
7-IST		Internet/ Company Website/Post in social networks	News about announcing the SHIPLYs project will be posted on the website of IST-CENTEC soon and the naval architecture society in Portugal will be kept informed about the progress of the project	General information about the project	done	2017
7-IST		Information / knowledge exchange	Share the achievement of the SHIPLYs project in different joint projects and activities	Knowledge exchange	done	2017
7-IST	Co-operation with other partners	Project Publication	Bharadwaj, U. R., Koch, T., Milat, A., Herrera, L., Randall, G., Volbeda, C., Garbatov, Y., Hirdaris, S., Tsouvalis, N., Carneros, A., Zhou, P. & Atanasova, I. 2017. Ship Lifecycle Software Solutions (SHIPLYs) - an overview of the project, its first phase of development and challenges. <i>Maritime Transportation and Harvesting of Sea Resources</i> . 889-897.	Knowledge exchange	done	Oct 2017
7-IST	Co-operation with VARNA	Project Publication	Damyantiev, T., Georgiev, P. & Garbatov, Y. 2017. Conceptual ship design framework for designing new commercial ships. In: Guedes Soares, C. & Garbatov, C. (eds.) <i>Progress in the Analysis and Design of Marine Structures</i> . London: Taylor & Francis Group.	Knowledge exchange	done	2017
7-IST		Project Publication	Garbatov, Y. & Georgiev, P. 2017. Optimal design of stiffened plate subjected to combined stochastic loads. In: Guedes Soares, C. & Garbatov, C. (eds.) <i>Progress in the Analysis and Design of Marine Structures</i> . London: Taylor & Francis Group.	Knowledge exchange	done	2017
7-IST		Project Publication	Garbatov, Y. & Guedes Soares, C. Spatial corrosion wastage modelling of steel plates subjected to marine environments. <i>Proceedings of the 36th International Conference on Ocean, Offshore and Arctic Engineering, 2017 Trondheim, Norway</i> . paper OMAE2017-61751.	Knowledge exchange	done	2017
7-IST		Information / knowledge exchange	SHIPLYs workshop and SAC Meeting held at the Congress Centre at IST	Knowledge exchange	done	2017

Partner	Other involved partner	Type of dissemination activity	Description	Content	Status	Timing
7-IST	Co-operation with AES and VARNA	Project Publication	Garbatov, Y., Ventura, M., Guedes Soares, C., Georgiev, P., Koch, T. & Atanasova, I. 2017. Framework for conceptual ship design accounting for risk-based life cycle assessment. In: Guedes Soares, C. & Teixeira, A. (eds.) Maritime Transportation and Harvesting of Sea Resources. London: Taylor & Francis Group, 921-931.	Knowledge exchange	done	Oct 2017
7-IST	Co-operation with VARNA	Project Publication	Garbatov, Y., Ventura, M., Georgiev, P., Damyanliev, T. P. & Atanasova, I. 2017. Investment cost estimate accounting for shipbuilding constraints. In: Guedes Soares, C. & Teixeira, A. (eds.) Maritime Transportation and Harvesting of Sea Resources. London: Taylor & Francis Group, 913-921.	Knowledge exchange	done	2017
7-IST		Project Publication	Gordo, J. M. and Leal, 2017, A tool for analysis of costs on the manufacturing of the hull, In: Guedes Soares, C. & Teixeira, A. (eds.) Maritime Transportation and Harvesting of Sea Resources. London: Taylor & Francis Group, 743-748.	Knowledge exchange	done	2017
7-IST		Project Publication	Garbatov, Y. & Sisci, F. 2018. Sensitivity analysis of risk-based conceptual ship design. In: Guedes Soares, C. & Santos, T. A. (eds.) Progress in Maritime Technology and Engineering. London: Taylor & Francis Group, 499-510.	Knowledge exchange	done	01/05/2018
7-IST		Project Publication	Denev, Y., Georgiev, P. & Garbatov, Y. 2018. Analysis of multipurpose ship performance accounting for SME shipyard building limitations. n: Guedes Soares, C. & Santos, T. A. (eds.) Progress in Maritime Technology and Engineering. London: Taylor & Francis Group	Knowledge exchange	done	01/05/2018
7-IST	Co-operation with VARNA	Project Publication	Damyanliev, T., Georgiev, P., Atanasova, I. & Garbatov, Y. 2018. Conceptual design of multipurpose ship and fleet accounting for SME shipyard building limitations, In: Guedes Soares, C. & Santos, T. A. (eds.) Progress in Maritime Technology and Engineering. London: Taylor & Francis Group	Knowledge exchange	done	01/05/2018
7-IST	Co-operation with VARNA	Project Publication	Atanasova, I., Damyanliev, T. P., Georgiev, P. & Garbatov, Y. 2018. Analysis of SME ship repair yard capacity in building new ships. In: Guedes Soares, C. & Santos, T. A. (eds.) Progress in Maritime Technology and Engineering. London: Taylor & Francis Group	Knowledge exchange	done	01/05/2018

Partner	Other involved partner	Type of dissemination activity	Description	Content	Status	Timing
7-IST		Project Publication	Garbatov, Y. & Guedes Soares, C., 2018, Corrosion margins for redundant ship structures Proceedings of the 37th International Conference on Ocean, Offshore and Arctic Engineering, Madrid, Spain, Paper OMAE2018-77024.	Knowledge exchange	done	01/06/2018
7-IST		Project Publication	Sisci, F. & Ventura, M. 2018. Tool for Initial Structural Dimensioning in Ship Concept Design. In: Guedes Soares, C. & Santos, T. A. (eds.) Progress in Maritime Technology and Engineering. London: Taylor & Francis Group, 309-316.	Knowledge exchange	done	01/05/2018
7-IST		Project Publication	Oliveira, A. & Gordo, J. M., 2018, Model to Forecast Times and Costs of Cutting, Assembling and Welding Stages of Construction of Ship Blocks, Guedes Soares, C. & Santos, T. A. (eds.) Progress in Maritime Technology and Engineering. London: Taylor & Francis Group	Knowledge exchange	done	01/05/2018
7-IST		Project Publication	Gordo, J.M. & Guedes Soares, C, 2018, Pure bending test on a box girder with low panels slenderness, Proceedings of the 37th International Conference on Ocean, Offshore and Arctic Engineering, Madrid, Spain.	Knowledge exchange	done	01/06/2018
7-IST		Project Publication	Gordo, J. M., 2018, Dependence of Ultimate Bending Moment of Box Girders on Panel's Slenderness, International Journal of Engineering Innovation & Research, Volume 7, Issue 4, ISSN: 2277 – 5668, pp. 216-219.	Knowledge exchange	done	01/06/2018
7-IST	Co-operation with other partners	Project Publication	Frank, D., Randall, G., Koch, T., Rodov, B., Bharadwaj, U., Garbatov, Y., Zhou, P., Zanón, J., Tsouvalis, N., Atanasova, I., Herrera, L. and Volbeda, C., 2018, "Ship design process using life cycle integrated independent software of SHIPLY S platform ", Proceedings of the 23rd International Symposium on Theory and Practice of Shipbuilding (SORTA'18), Split, Croatia.	Knowledge exchange	done	Sep-18
7-IST		Project Publication	Garbatov, Y., Sisci, F. and Ventura, M., 2018, "Risk-based framework for ship and structural design accounting for maintenance planning", Ocean Engineering, 166, pp. 12-25.	Knowledge exchange	done	06/08/2018

Partner	Other involved partner	Type of dissemination activity	Description	Content	Status	Timing
7-IST		Project Publication	Garbatov, Y. & Ying Cai Huang, C., 2019, Multiobjective reliability-based design of ship structures subjected to fatigue damage and compressive collapse Proceedings of the 39th International Conference on Ocean, Offshore and Arctic Engineering, Glasgow, UK, Paper OMAE2019-96666.	Knowledge exchange	done	18/7/2019
7-IST		Information / knowledge exchange	SHIPLYS workshop held in Varna	Knowledge exchange	done	27/06/2019
8-VARNA		Internet/ Company Website/Post in social networks	Electronic publication on company website: www.varnamaritime.com , link to www.shiplys.com	General information about the project	done	October 2016
8-VARNA		Internet/ Company Website/Post in social networks	Electronic publication on Marine cluster Bulgaria website: www.marinecluster.com	General information about the project	done	November 2016
8-VARNA		Project Publication	Bulgarian Maritime Encyclopedia 2016	General information about the project	done	November 2016
8-VARNA		Participation in congress or conference/Distribution of Flyer/Brochure	Conference of european maritime research, innovation and competitive growth of SME/s - a local event in Varna, organised with Marine cluster Bulgaria, Technical university of Varna	Dissemination of project / WP results	done	May 2017
8-VARNA		Project Presentation/Distribution of Flyer/Brochure	Yearly meetings of European Network of maritime clusters 2017	General information about the project	done	October 2017
8-VARNA		Distribution of Flyer/Brochure	Yearly meetings of European Network of maritime clusters 2018; Blue NET project meetings 2018	Dissemination of projects, WP results	done	July, October 2018,
8-VARNA		Participation in congress or conference	4th international conference on maritime technology and engineering (MARTECH 2018) 7-9 May 2018, Lisbon, Portugal - Presentation	Knowledge exchange	done	May 2018

Partner	Other involved partner	Type of dissemination activity	Description	Content	Status	Timing
8-VARNA		Project Publication	T.Damyanliev, P.Georgiev, I.Atanasova&Y.Garbatov, Conceptual design of multipurpose ship and fleet accounting for SME shipyard, Progress in maritime technology-G.Soaes & Santos(Eds), 2018 Taylor&Francis Group, London, ISBN 978-1-138-58539-3	Knowledge exchange	done	May 2018
8-VARNA		Project Publication	I.Atanasova, T.Damyanliev, P.Georgiev&Y.Garbatov, Analysis of SME ship repair yard capacity in building new ships, Progress in maritime technology-G.Soaes & Santos(Eds), 2018 Taylor&Francis Group, London, ISBN 978-1-138-58539-3	Knowledge exchange	done	May 2019
8-VARNA		Other diss. activity (explain)	Organisation of a SHIPLYs Workshop - Varna - 27th June 2019. Presentation of the SHIPLYs platform in front of 20 lokal stakeholders - representatives of shipyards, ship design SMEs, Univesitets.	Dissemination of project / WP results	done	27 June 2019
9-FERG		Internet/ Company Website/Post in social networks	News about SHIPLYs and link to website posted on www.fergusonmarine.com	General information about the project	done	01/11/2016
9-FERG		Press Release	Local paper intersted in publishing news about SHIPLYs (TBC)	General information about the project	done	01/05/2016
9-FERG		Press Release	Speaking with Channel 5 about shipyard and participation in SHIPLYs	General information about the project	done	26/04/2017
9-FERG		Working / business contact	Discussing SHIPLYs with consortium members of other EU and Scottish Government funded projects	General information about the project	done	01/06/2019
10-AS2CON		Press Release	1st press release has been created and sent to the as2con's media distribution list	General information about the project	done	September 2016
10-AS2CON		Internet/ Company Website/Post in social networks	News posted on company website (www.as2con.eu) and social networks; News about announcing the project and news about project meetings	General information about the project	ongoing	
10-AS2CON	All	Distribution of Flyer/Brochure	Created and distibuted first project newsletter	Project / WP presentation	done	December 2016

Partner	Other involved partner	Type of dissemination activity	Description	Content	Status	Timing
10-AS2CON	All	Distribution of Flyer/Brochure	Created and printed first project flyer	Project / WP presentation	done	March 2017
10-AS2CON		Participation in congress or conference	Participation at conference IMAM 2017. The paper has been presented at the conference. Paper title: <i>SHIPLYS end-users' requirements to inform software development</i> Authors: <i>A. Milat, N. Golik Klanac</i> Related WP: <i>WP2 - Task 2.3</i>	Dissemination of project / WP results	done	October 2017
10-AS2CON	All	Participation in congress or conference	Participation at conference SORTA in Split, Croatia Paper title: <i>Overview of the early ship design process using SHIPLYS platform (Ship life cycle software solutions) which integrates independent software packages</i> Authors: <i>D. Frank, G. Randall, T. Koch, B. Rodov, U. Bharadwaj, Y. Garbatov, P. Zhou, J.I. Zanon, N. Tsouvalis, I. Atanasova, L. Herrera, C. Volbeda</i>	Knowledge exchange	done	27-29 Sep 2018
10-AS2CON	All	Distribution of Flyer/Brochure	Created and distributed second project newsletter	Project / WP presentation	done	May 2018
10-AS2CON	All	Distribution of Flyer/Brochure	Created and distributed third project newsletter	Project / WP presentation	done	31 July 2019
10-AS2CON	TWI	Press Release	Final press release has been created and sent to the as2con's media distribution list	General information about the project	done	31 July 2019
10-AS2CON		Other diss. activity (explain)	Participation and presenting the project results at SHIPLYS workshops held in Varna and Vigo	Dissemination of project / WP results	done	June/July 2019
10-AS2CON		Project Publication	D9.1 SHIPLYS dissemination strategy	Dissemination of project / WP results	done	01 November 2016
10-AS2CON		Project Publication	D9.2 SHIPLYS dissemination activities carried out	Dissemination of project / WP results	planned	31 August 2019
11-BMT		Participation in congress or conference	Maritime Technology Conference	Knowledge exchange	done	02 March 2017

Partner	Other involved partner	Type of dissemination activity	Description	Content	Status	Timing
11-BMT		Participation in congress or conference	H2020 Waterborne Research Conference	Knowledge exchange	planned	08 June 2017
11-BMT		Internet/ Company Website/Post in social networks	News item to be published in website	General information about the project	done	01 May 2017
11-BMT		Other diss. activity (explain)	Participation and presenting the project results at SHIPLYS workshops held in Varna and Vigo	Dissemination of project / WP results	done	June/July 2019
12-LR		Distribution of Flyer/Brochure	Marketing of project at the Annual Royal Inst. Of Naval Architects Event at London, UK	General information about the project	done	27 April 2017
12-LR	SU, LR, AES, IST, NTUA, BMT and TWI	Other diss. activity (explain)	Introductions and attendance at ISO/TS groups to provide our inputs into future standards	Dissemination of project / WP results	planned	M24 - M36
12-LR		Cooperation with other R&D Projects	Exchange of ideas and progress with EU Project HOLISHIP (mini conference)	Knowledge exchange	planned	M24 of the project so that quality results are in place.
12-LR		Participation in congress or conference	IMAM 2017	Dissemination of project / WP results	planned	

Appendix B Final press release



Press release

Completion of the European research project SHIPLY to advance ship design and production process

SHIPLY (Ship life cycle software solutions) is a three-year project that started in September 2016. The project is in response to needs of SME naval architects, shipbuilders and ship-owners, who, in order to survive in the world market, need to improve their capability to reduce the time and costs of design and production. SHIPLY provides these improvements by developing functionality that includes rapid virtual prototyping and the ability to factor in LCCA (Life Cycle Cost Analysis), environmental assessments, risk assessments and end-of-life considerations at the very early design stages when only limited data is available.

The SHIPLY consortium, led by TWI Ltd, is formed by 12 partners from 7 EU countries: TWI Ltd (UK); Fundacion Centro Technologies SOERMAR (Spain); Atlantec Enterprise Solutions GmbH (Germany); University of Strathclyde (UK); Astilleros de Sandander SA (Spain); National Technical University of Athens (Greece); Instituto Superior Tecnico (Portugal); Varna Maritime Limited (Bulgaria); Ferguson Marine Engineering Ltd (UK); Alveus L.L.C (Croatia); BMT Group Ltd (UK); Lloyd's Register EMEA IPS (UK).

Key tasks in the project included the development of:

- A SHIPLY platform enabling the integration of a variety of Applications used in early ship design
- Rapid early design and production simulation tools (Applications)
- LCCA, environmental and risk assessment software Applications for fast and cost-effective evaluation of alternatives
- The development of multi-criterion decision analysis techniques to support decision making across the short/ long term, based on explicit user defined decision criteria

Work within SHIPLY project started with analysing end users' needs using the Quality Function Deployment method and selecting end-user cases, called design case "Scenarios" that indicate the types of problems for which the project aspired to develop solutions. Then, the project continued with collecting relevant data and parameters for early ship design, LCCA, risk and environmental aspects, thus incorporating and building on the existing ISO 10303 Application Activity Model.

In the run-up to project completion, SHIPLY consortium organised two training workshops to present the SHIPLY platform and the developed solutions (software applications) in order to gain feedback from interested stakeholders. The first workshop was held in June 2019 in Varna that was attended by representatives from Bulgarian shipyards, design technical offices and universities. The second workshop was held in July in Vigo with stakeholders from Spain and nearby locations attending.

The Consortium is grateful to all those who directly or indirectly supported the project; particularly, we acknowledge with thanks the funding received from the European Union's Horizon 2020 research and innovation programme under grant agreement No 690770.

The project results have been reported in several public deliverables and in numerous scientific papers published in established maritime conferences or journals. More information on the project and the results presented in public deliverables are available on the public website at <http://www.shiplies.com/>.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 690770".



Figure 1: SHIPLYS project partners and participants of SHIPLYS workshop in Varna, June 2019



Figure 2: SHIPLYS project partners and participants of SHIPLYS workshop in Vigo, July 2019


Appendix C Published press release

SAFETY4SEA






2019 SAFETY4SEA Awards Ceremony

TUE 01 OCT 2019
Yacht Club of Greece

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Credit: SHIPLYS

EU project for ship design and production completed

SHIPLYS (Ship life cycle software solutions) is a three-year project that began in September 2016. The project is in response to needs of SME naval architects, shipbuilders and ship-owners, who need to improve their capability to reduce the time and costs of design and production.

SMART | 19/08/19

SHIPLYS aims to develop functionality that includes virtual prototyping and the ability to factor in LCCA (Life Cycle Cost Analysis), environmental assessments, risk assessments and end-of-life considerations at the very early design stages when only limited data is available.

The SHIPLYS consortium, led by TWI Ltd, is formed by 12 partners from 7 EU countries:

- TWI Ltd (UK);
- Fundacion Centro Technologies SOERMAR (Spain);
- Atlantec Enterprise Solutions GmbH (Germany);
- University of Strathclyde (UK);

Figure 19: Second press release published on Safety4Sea web-portal

The SHIPPAX logo features the word "SHIPPAX" in a bold, black, sans-serif font, followed by a stylized graphic of three curved lines representing a ship's hull or a propeller.

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Completion of the European research project SHIPLYS to advance ship design and production process

SHIPLYS (Ship life cycle software solutions) is a three-year project that started in September 2016. The project is in response to needs of SME naval architects, shipbuilders and ship-owners, who, in order to survive in the world market, need to improve their capability to reduce the time and costs of design and production. SHIPLYS provides these improvements by developing functionality that includes rapid virtual prototyping and the ability to factor in LCCA (Life Cycle Cost Analysis), environmental assessments, risk assessments and end-of-life considerations at the very early design stages when only limited data is available.

The SHIPLYS consortium, led by TWI Ltd, is formed by 12 partners from 7 EU countries: TWI Ltd (UK); Fundacion Centro Technologies SOERMAR (Spain); Atlantec Enterprise Solutions GmbH (Germany); University of Strathclyde (UK); Astilleros de Sandander SA (Spain); National Technical University of Athens (Greece); Instituto Superior Tecnico (Portugal); Varna Maritime Limited (Bulgaria); Ferguson Marine Engineering Ltd (UK); Alveus L.L.C (Croatia); BMT Group Ltd (UK); Lloyd's Register EMEA IPS (UK).

Key tasks in the project included the development of:

- A SHIPLYS platform enabling the integration of a variety of Applications used in early ship design
- Rapid early design and production simulation tools (Applications)
- LCCA, environmental and risk assessment software Applications for fast and cost-effective evaluation of alternatives

Figure 20: Second press release published on SHIPPAX web-portal

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Completion of the EU Research Project SHIPLYS

Posted by Michelle Howard August 19, 2019



SHIPLYS

Logo: SHIPLYS

SHIPLYS (Ship life cycle software solutions) is a three-year project that started in September 2016. The project is in response to needs of SME naval architects, shipbuilders and ship-owners, who, in order to survive in the world market, need to improve their capability to reduce the time and costs of design and production.

SHIPLYS provides these improvements by developing functionality that includes rapid virtual prototyping and the ability to factor in LCCA (Life Cycle Cost Analysis), environmental assessments, risk assessments and end-of-life considerations at the very early design stages when only limited data is available.

The SHIPLYS consortium, led by TWI Ltd, is formed by 12 partners from 7 EU countries: TWI Ltd (UK); Fundacion Centro Technologies SOERMAR (Spain); Atlantec Enterprise Solutions GmbH (Germany); University of Strathclyde (UK); Astilleros de Sandander SA (Spain); National Technical University of Athens (Greece); Instituto Superior Tecnico (Portugal); Varna Maritime Limited (Bulgaria); Ferguson

Figure 21: Second press release published on MarineLink web-portal

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SHIP DESIGN RESEARCH PROJECT IS COMPLETE

HOME >> NEWS >> INDUSTRY NEWS >> SHIP DESIGN RESEARCH PROJECT IS COMPLETE

19 Aug 2019 Email Share Print


A European research project to advance ship design and production processes has been completed.

The three-year SHIPLYS (Ship life cycle software solutions) project was launched in response to the need of SME naval architects, shipbuilders and ship-owners to improve their capability to reduce the time and costs of design and production.

SHIPLYS provides these improvements by developing functionality that includes rapid virtual prototyping and the ability to factor in LCCA (Life Cycle Cost Analysis), environmental assessments, risk assessments and end-of-life considerations at the very early design stages when only limited data is available.

Major developments

Key tasks in the project included the development of a SHIPLYS platform enabling the integration of a variety of Applications used in early ship design: rapid early design and production simulation tools (Applications); LCCA, environmental and risk assessment software Applications for fast and cost-




SHIPLYS was launched to reduce the time and costs of design and production. Image: Avelis

Figure 22: Second press release published on Maritime Journal web-portal

riviera)))

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SHIPLYS assists naval architects during ship design and construction

Ship lifecycle software will reduce design costs

20 Aug 2019 by Martyn Wingrove

Software has been developed for rapid virtual prototyping and risk assessment to improve ship design in Europe

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A consortium of companies and research organisations have completed testing ship lifecycle software solutions (SHIPLYS) to reduce the time and cost of designing and producing vessels.

This software platform improves rapid virtual prototyping and allows naval architects to factor in lifecycle cost analysis. It also enables environmental assessments, risk assessments and end-of-life considerations at the very early design stages when only limited data is available.

Figure 23: Second press release published on Riviera Maritime Media web-portal



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in International Shipping News.Shipbuilding News © 22/08/2019



SHIPLYS

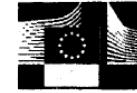
SHIPLYS (Ship life cycle software solutions) is a three-year project that started in September 2016. The project is in response to needs of SME naval architects, shipbuilders and ship-owners, who, in order to survive in the world market, need to improve their capability to reduce the time and costs of design and production. SHIPLYS provides these

Figure 24: Second press release published on Hellenic Shipping News web-portal

Appendix D Varna workshop participants



SHIPLYS WORKSHOP



SHIP LIFECYCLE SOFTWARE SOLUTIONS FOR SHIP AND STRUCTURAL DESIGN, SHIPBUILDING AND MANAGEMENT, HYBRID AND SCRUBER SYSTEMS AND BENEFITS DECISION MAKING

27 June 2019, Varna

REGISTRATION

No	Name	Organization	Signature
1	ANA MESSABI	STRATHELYDE UNIVERSITY	AMessabi
2	Nicholas TSOUREVALIS	NATIONAL TECH. UNIV. OF ATHENS	[Signature]
3	ANDRIAS ROPPELT	ATLANTEC ENTERPRISE SOLUTION	[Signature]
4	Thomas Koot	Atlantec-es	[Signature]
5	DARKO FRANK	ASZCON	[Signature]
6	Konstantin Kreuter	ATLANTEC ES	[Signature]
7	Aaron Schultz	BMT	[Signature]
8	Gary Andall	BMT	[Signature]
9	Peterson Bepouka Benzescu	Varna Maritime Ltd	[Signature]
10	UJJWAL BHARADWAS	TWI Ltd, Cambridge (UK)	[Signature]

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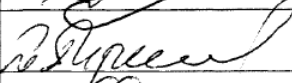

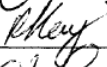
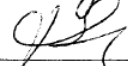
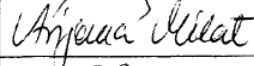

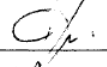

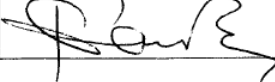
SHIPLYS WORKSHOP



SHIP LIFECYCLE SOFTWARE SOLUTIONS FOR SHIP AND STRUCTURAL DESIGN, SHIPBUILDING AND
MANAGEMENT, HYBRID AND SCRUBER SYSTEMS AND BENEFITS DECISION MAKING

27 June 2019, Varna

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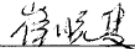
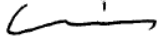
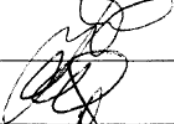


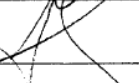

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REGISTRATION

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	Димитър Димитров	АТТД	
	Илзе Атанасова	Varna maritime Ltd	



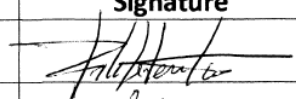
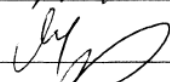

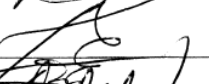

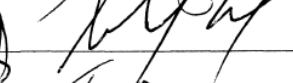
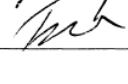
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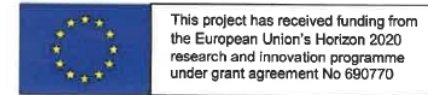
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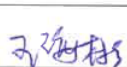

REGISTRATION

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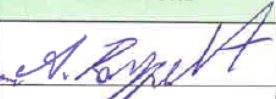







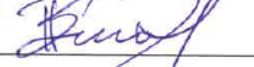
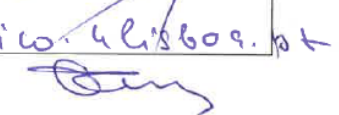
Appendix E Vigo workshop participants



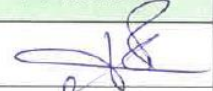


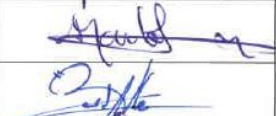


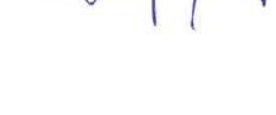
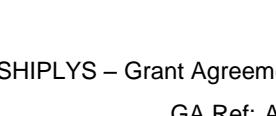

SHIPLYS (Ship life cycle software solutions) Vigo Workshop Wednesday, 10th July 2019

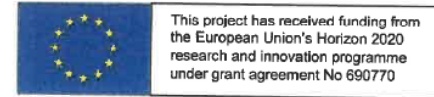
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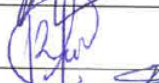
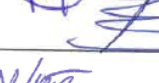
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