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AENEAS

innovAtive ENErgy storage systems onboArd vesselS

Deliverable <u>D7.2 Communication and Dissemination action</u> plan report

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Project Abstract

AENEAS aims to contribute towards climate-neutral and environmentally friendly water transport through three new next generation clean energy storage solutions. Eventual impact is an increase of the global competitiveness of the EU waterborne transport sector by European technology leadership for energy storage solutions for diverse waterborne applications. AENEAS will develop three innovative electric Energy Storage Solutions (ESS) for waterborne transport, which are advanced beyond the traditional battery systems, including Solid-state batteries (SSB), Supercapacitors (SC) and a Hybrid system which combines SSB and SC. The solutions enable (partial or full) electric shipping, taking into account conditions specific ships might encounter, including adverse conditions outside sheltered waters or going upstream on rivers. AENEAS will evaluate them for a range of applications and end uses in short-sea shipping and in-land waterways. At the same time AENEAS will define the pathway for the three ESSs for application in different ship types, achieving a comprehensive understanding of the ESSs and their applicability for diverse waterborne transport.

Table of Contents

1	Pub	lic Summary		
2	Intr	oduction		
2	.1	Rational of this deliverable		
3	The	Consortium		
3	.1	Outreach9		
4	Met	hodology14		
5	Stal	ceholders Engagement and mobilization16		
5	.1	Joint collaboration with Similar EU Projects, Initiatives and sharing of best practices 19		
6	Dis	semination tools		
6	.1	Project Corporate identity		
6	.2	Social media		
6	.3	Project website		
6	.4	General project presentation		
6	.5	Flyer or Fact sheet		
6	.6	Newsletters		
6	.7	Publications		
6	.8	Conferences		
6	.9	Workshops		
6	.10	Animation / Video		
6	.11	E-lectures		
7	Mo	nitoring and verification tools		
7	.1	Impact Assessment		
8	Con	clusions		
1.	Ref	erences		
8. A	8. Acknowledgements and disclaimer			
Abł	orevi	ations and Definitions		



Deliverable D7.2

List of Figures	
List of Tables	

Annex 1



1 Public Summary

The AENEAS project is dedicated to promoting clean and sustainable energy solutions for waterborne transport. Our goal is to improve energy efficiency and reduce emissions in vessels through innovative electric energy storage systems. This summary provides a comprehensive and detailed overview of the AENEAS project's Dissemination Plan, which encompasses various aspects, ensuring effective communication and impact within the maritime industry and beyond. The Dissemination Plan delves into the following topics:

> Methodology

It outlines the four-step methodology employed in the dissemination plan, emphasizing the significance of collaboration, open science, and social impact. It describes the clear framework for the dissemination process and highlights its alignment with the overall project objectives.

Consortium's Outreach

This part introduces the consortium partners and their respective expertise and contributions to the project. It highlights the significance of their outreach and networks, underscoring their pivotal role in engaging stakeholders and promoting the project's findings.

Stakeholder Engagement Plan

An in-depth stakeholder engagement plan is presented, emphasizing how the AENEAS project aims to involve and collaborate with relevant stakeholders. The plan outlines strategies for obtaining input and feedback from key stakeholders to enhance the project's impact.

> Dissemination Tools and Activities

This part delves into the various dissemination tools and activities chosen to effectively communicate the project's research outcomes. It details presentations, publications, newsletters, social media, and other means used to reach diverse target audiences.

Linkage Between Dissemination and Exploitation

The interconnection between dissemination and exploitation activities is explored in this chapter. It illustrates how effective communication enhances the project's potential for commercialization and broader implementation of research results.

Monitoring Impacts of Dissemination

The final chapter focuses on monitoring and evaluating the impacts of dissemination efforts. It outlines methods for assessing the success of the dissemination plan, tracking the reach and effectiveness of communication activities.



2 Introduction

2.1 Rational of this deliverable

Communication and Dissemination (C&D) plays a crucial role in the project in order to promote project results and share best practices and key messages.

The C&D strategy aims at achieving maximum impact with controlled spending by selecting channels that are the most effective in reaching out to the target groups and building upon multipliers. These will be invited to share the core messages, good practices and ultimately the results of the project using their own communication channels and tools.

Since the beginning of the implementation phase, WP7 will promote the project's objectives and activities and, as soon as they become available, its results.

All partners, led by FM will play a role in communication and dissemination in their respective areas, within their own network, and with their own means. SOER as WP7 leader with support of FMAR and other WP7 partners, will elaborate and lead the communication strategy and permanently give inputs to all partners.

The success of the AENEAS project relies not only on groundbreaking research and innovation but also on effectively disseminating project results and engaging with stakeholders to achieve widespread impact.

Main AENEAS Target Groups are listed below:

- Ship Operators;
- Ports and Terminals;
- Energy storage technology providers and system integrators;
- Shipyards;
- Maritime Associations and Clusters;
- Scientific Community;
- Policy Makers.

Dissemination Levels:

- At National level, the multiplier effect is ensured by the involvement of 14 core partners reflecting a geographically diverse spread of countries that have well-structured presence at national level and expertise that is well-suited to achieving the objectives of the project. Furthermore, the partner staff and networks cover the language requirements of all 27 EU member states; the consortium also reflects a spectrum of stakeholders in the field, combining R&Ds, Large Industry, Shipping, Governance level.
- At European level, the project's partners are well-capable of contributing to a Europewide outreach, disseminating project results effectively, and driving the adoption of innovative energy storage solutions within the European maritime sector.

The Dissemination and Communication strategy is meant to be flexible and can be adapted to the partners' and project's needs. The success of the project will significantly depend on strengthening the cooperative relationship within the partnership, as well as on the capacity to activate synergies. The Communication strategy will support all the partners in communication strategies, guaranteeing a constant relation between the actions planned at different levels to effectively and consistently disseminate, at different level, project's activities and results towards the identified target audiences and stakeholders (The Outreach of the Dissemination strategy is described below).



The Dissemination Strategy's goals and activities are included in WP7 whose specific objectives are:

- **O1:** Maximise the dissemination of project results to bring widespread awareness to the broader public through presentations at webinars, technical conferences, scientific publications and the project website.
- **O2:** Generate high impact by carrying out customised communication activities towards relevant industries in the batteries and recycling sector along with the relevant policy makers.
- **O3:** Promote awareness of world-wide IP and expertise in the field of solid-state batteries, to enlarge the EU knowhow in the field.
- **O4:** Liaise with relevant projects and initiatives, also at extra-European level, to ensure knowledge exchange, interoperability of the developed systems as well as wide market penetration.

The successful dissemination of project information and engagement with stakeholders are essential components of the AENEAS initiative, which aims to develop innovative energy storage systems for on-board vessels through the ZEWT Partnership.

In this endeavor, three distinct tasks play pivotal roles:

- Task 7.1 Dissemination tools and materials
- Task 7.2 Dissemination and communication activities
- Task 7.3 Identifying and Engaging Stakeholders

Each of these tasks contributes to ensuring the widespread recognition and acceptance of alternative Energy Storage Systems (ESS) in the maritime sector.

No.	Deliverable Name	Leader	Туре	Dissemination Level	Due date (Month)
D7.2	Communication and dissemination plan report	FMAR	R – Document, report	PU - Public	6
D7.3	Revision of communication and dissemination plan report	FMAR	R – Document, report	PU - Public	18
D7.5	Dissemination activities overview report	I2M	R – Document, report	PU - Public	36

Attainment of the objectives and explanation of deviations:

The objectives related to this deliverable have been achieved and as scheduled for this initial stage of the AENEAS project. Risks for WP7 have been identified at the beginning of the project and reported in a dedicated deliverable.

The indicators and tools for monitoring the achievement of objectives have been clearly defined and a risk assessment process will identify and address potential risks, playing a crucial role in safeguarding the project's success and ensuring the attainment of its objectives.



3 The Consortium

The consortium partnership members of the AENEAS project allow outreach to a diverse range of stakeholders, including academic and research institutions, industrial partners and technology providers, as well as government and policy-making bodies. Engaging with these stakeholders will enable effective dissemination of project findings, foster collaboration, and promote the adoption of innovative energy storage solutions for waterborne transport.



Figure 1: Geography of the Consortium

#	Partner	Partner full name	Geographical Exent
1	FM	FLANDERS MAKE	Belgium
2	CEA	COMMISSARIAT A L'ENERGIE ATOMIQUE ET AUX ENERGIES	France
	CLM	ALTERNATIVES	
3	ABEE	AVESTA BATTERY & ENERGY ENGINEERING	Belgium
4	SIE	SIEMENS INDUSTRY SOFTWARE SAS	France
5	UVA	VAASAN YLIOPISTO	Finland
6	I2M	I2M UNTERNEHMENSENTWICKLUNG GMBH	Austria
7	GRIM	GRIMALDI EUROMED SPA	Italy
8	INLS	INLAND SHIPPING SRL	Romania
		FUNDACION DE LA COMUNIDAD VALENCIANA PARA LA	Spain
9	FV	INVESTIGACION, PROMOCION Y ESTUDIOS COMERCIALES DE	
		VALENCIAPORT	
10	AUTH	ARISTOTELIO PANEPISTIMIO THESSALONIKIS	Greece
11	SOER	FUNDACION CENTRO TECNOLOGICO SOERMAR	Spain
12	FMAR	FORMARE- POLO NAZIONALE PER LO SHIPPING SRL	Italy
13	ISSN	INSTITUTE FOR SUSTAINABLE SOCIETY AND INNOVATION	Italy
14	FS	CONSTRUCCIONES NAVALES P. FREIRE, S.A.	Spain

Table 2: The members of the Consortium



3.1 Outreach

Maximizing the market uptake of the AENEAS solutions relies on a robust industrial consortium, comprising various key stakeholders. Shipbuilders/operators such as GRIM, INLS, and FS, along with system integrators like SIE, ABEE, FM, I2M, and CEA, form a strong industrial backbone. Additionally, the consortium boasts the support of influential academic partners, including UVA, AUTH, and ISSN.

SOER, FV, and FMAR represent prominent maritime stakeholder groups, encompassing end users and port authorities, thereby facilitating widespread adoption of the AENEAS solutions in the European maritime market. This adoption contributes to the advancement of European expertise in the electrification of the waterborne transport sector. By being part of the Waterborne TP/ZEWT, SOER, FV, and CEA enable effective connections between AENEAS activities and the relevant stakeholders, fostering two-way knowledge and expertise transfer.

Furthermore, the participation of INLS (Romania) and AUTH (Greece) as partners from the EU Widening countries plays a vital role in building research and innovation capacity concerning energy and waterborne transport in these regions. The interdisciplinary nature of the consortium, underscores the collective strength and potential of the collaborative efforts.

The outreach of stakeholders based on the partnership members can be categorized into specific key areas:

1. Research and Academic Institutions:

Reached by the following consortium partners:

- Vaasan Yliopisto (University of Vaasa)
- Aristotelio Panepistimio Thessalonikis (Aristotle University of Thessaloniki)
- Fundacion Centro Tecnologico Soermar (Foundation for Technological Development in Marine Environment and Resources)
- Institute for Sustainable Society and Innovation
- Formare Polo Nazionale per lo Shipping Srl (National Hub for Shipping)

These academic, research and VET institutions represent stakeholders from the scientific and maritime community and can contribute to knowledge exchange, collaboration on research activities, and dissemination of project results within the academic sphere. Outreach to these kind of stakeholders leads to knowledge exchange, collaborative research, and sharing project results with academic and research communities.

Vaasan Yliopisto (UVA): as a reputable research university, the University of Vaasa is a hub for academic excellence and research in various fields, including energy storage systems and sustainable technologies. The university's faculty, researchers, and students are part of an extensive academic network both within Finland and internationally. Leveraging their academic collaborations, partnerships, and publications, the University of Vaasa can effectively disseminate project findings, engage with the academic community, and contribute to Europewide outreach and knowledge exchange.

Aristotle University of Thessaloniki (AUTH) is one of the largest and most prestigious universities in Greece. Founded in 1925, the university has a long history of academic excellence and contributes significantly to research, education, and innovation in various fields.



AUTh is committed to advancing knowledge and promoting sustainable development through its research activities

Fundacion Centro Tecnologico Soermar (SOER), based in Spain, is a foundation dedicated to technological development in the marine environment and resources. The foundation focuses on research and development projects related to maritime technologies, sustainable shipping, and environmental protection. As a partner in the AENEAS project, Soermar brings expertise in the maritime industry and maritime environmental technologies. Their knowledge of marine operations and shipping-related challenges is crucial for identifying the specific requirements and opportunities for integrating energy storage systems into waterborne transport. Soermar's involvement enhances the project's potential for outreach and adoption of sustainable energy solutions within the maritime sector in Spain and beyond.

The Institute for Sustainable Society and Innovation (ISSN) is likely a research organization or institute dedicated to promoting sustainable development and innovation across various industries. The institute's expertise likely spans fields such as renewable energy, environmental conservation, and sustainable technologies. It plays a crucial role in promoting the project's objectives, fostering collaborations with other sustainability-focused organizations, and disseminating project results to stakeholders interested in sustainable energy solutions.

Formare (FMAR) is an entity dedicated to fostering growth, innovation, and competitiveness within the Italian shipping sector. As the National Pole Hub Shipping, it likely operates as a center of excellence and acts as a hub for collaboration, research, and development initiatives within the maritime industry. As a partner in the AENEAS project, Formare contributes with its expertise in the shipping industry to advance the project's objectives related to electric energy storage systems for waterborne transport including stakeholder engagement and mobilization. Its involvement enhances the project's potential for outreach and adoption of sustainable energy solutions within the Italian shipping industry. Additionally, Formare's collaboration with other European partners in the project allows for knowledge exchange and the development of innovative solutions with a Europe-wide perspective.

2. Industrial Partners and Technology Providers:

Reached by the following consortium partners:

- Flanders Make
- Avesta Battery & Energy Engineering
- Siemens Industry Software SAS
- I2M Unternehmensentwicklung GmbH

These industrial partners and technology providers represent stakeholders from the private sector. They can contribute expertise, resources, and insights to the project, as well as play a crucial role in implementing and adopting innovative energy storage solutions within their respective industries. Engagement with this kind of stakeholders involves showcasing project advancements, seeking feedback, and exploring opportunities for technology integration and implementation in the industry.

Flanders Make (FM) is a research center in Belgium that focuses on the development of innovative manufacturing technologies. As a prominent research institution, Flanders Make has strong ties with industrial partners, academic institutions, and government agencies in the region and beyond. Their expertise in manufacturing technologies allows them to reach a



diverse network of stakeholders within the manufacturing and industrial sectors, facilitating Europe-wide outreach and collaboration.

Av Avesta Battery & Energy Engineering (ABEE) is involved in battery and energy engineering solutions. As a company specializing in energy storage technologies, they likely have connections with various stakeholders in the energy industry, including manufacturers, researchers, and policymakers. Their expertise in the field allows them to engage with a wide range of energy-related organizations, contributing to Europe-wide outreach for energy storage solutions.

Siemens (SIE) is a global company that provides software solutions for various industries, including manufacturing, energy, and transportation. With a wide customer base and a vast network of partners and collaborators, Siemens has the capability to reach a broad audience of industrial players and stakeholders across Europe and globally. Their involvement in the AENEAS project enables the dissemination of project outcomes to a large and diverse audience.

I2M Unternehmensentwicklung GmbH (I2M)

As a company specializing in corporate development, I2M likely has a network of industrial partners and clients across different sectors. Their involvement in the AENEAS project provides an opportunity to engage with stakeholders interested in technology and innovation. Their network and expertise in corporate development can contribute to a broader outreach for project results and innovations

3 Government and Policy-Making Bodies:

Reached by the following consortium partners:

- Commissariat a l Energie Atomique et aux Energies Alternatives (CEA, French Alternative Energies and Atomic Energy Commission)
- Fundacion de la Comunidad Valenciana para la Investigacion, Promocion y Estudios Comerciales de Valenciaport (Foundation of the Valencian Community for Research, Promotion, and Commercial Studies of Valenciaport)

These organizations represent stakeholders from governmental and policy-making bodies. CEA and Fundacion de la Comunidad Valenciana para la Investigacion, Promocion y Estudios Comerciales de Valenciaport are capable of reaching wide networks and achieving extensive outreach due to their established positions in their respective fields. Their expertise, reputation, and strong connections within the energy and maritime sectors make them valuable partners for the AENEAS project's dissemination and engagement efforts across Europe. Their involvement allows for outreach to key decision-makers and influencers in the energy and transportation sectors, facilitating potential policy support and regulatory alignment for innovative energy storage technologies. Outreach to these stakeholders involves sharing project outcomes, highlighting potential policy implications, and promoting the adoption of innovative energy storage solutions.

CEA is a well-known French research organization focusing on alternative energies and atomic energy. As a prominent research institution, CEA has a strong network of academic partners, industrial collaborators, and governmental entities at both national and international levels. Their expertise in energy research and their established connections enable them to reach a broad audience, including other research institutions, industry stakeholders, policy-makers, and



energy-related organizations across Europe and beyond. Their reputation and network allow them to effectively disseminate project results and innovative energy storage solutions to a wide audience, making them highly capable of achieving extensive outreach.

Fundacion de la Comunidad Valenciana para la Investigacion, Promocion y Estudios

Comerciales de Valenciaport (FV): As a foundation focused on research, promotion, and commercial studies of Valenciaport, this organization is closely tied to the maritime and port industry. Valenciaport is a significant maritime port located in the eastern part of Spain, and the foundation's role includes research and development activities related to port operations, logistics, and shipping. Given its direct involvement in the maritime sector, the foundation has access to a vast network of stakeholders, including shipping companies, port authorities, industry associations, and policy-makers within the region and beyond. The foundation's strategic location and expertise in port-related matters allow them to efficiently engage with a diverse audience and facilitate Europe-wide outreach for the project's results and innovations.

4. Maritime and Shipping Industry:

Reached by the following consortium partners:

- Grimaldi Euromed Spa
- Inland Shipping Srl
- Construcciones Navales P. Freire SA

They represent the Maritime and Shipping Industry stakeholders. As established companies operating in the maritime and shipping industry, these stakeholders likely have extensive expertise and experience in their respective fields. Their domain knowledge enables them to effectively communicate project findings, innovations, and benefits of alternative Energy Storage Systems (ESS) to a broader European audience. The engagement of stakeholders from the maritime and shipping industry allows the AENEAS project to gain valuable insights into the specific requirements and challenges faced in the sector. It provides an opportunity to demonstrate the viability and benefits of using advanced energy storage solutions for waterborne transport, ultimately fostering the widespread adoption of such technologies across the maritime industry. Collaborations with these stakeholders can drive positive environmental impacts, operational efficiency, and innovation in the shipping sector. Being established players in the industry, these stakeholders have extensive networks of contacts, including other shipping companies, maritime associations, research institutions, and industry-related organizations. Leveraging these networks allows for wider dissemination of project outcomes and knowledge exchange. As companies involved in the construction, operation, and maintenance of vessels, these stakeholders have the potential to influence the adoption of new technologies across their fleets and beyond. Their ability to reach a significant market share enhances the potential Europe-wide impact of the project.

Grimaldi Euromed Spa (GRIM)is a company operating in the maritime shipping sector. They are likely involved in shipping operations, logistics, and cargo transport. As a significant player in the shipping industry, they have extensive connections with other shipping companies, port authorities, and industry associations. Their active involvement allows for outreach to the maritime and shipping community, promoting the adoption of innovative energy storage systems for waterborne transport.

Inland Shipping Srl (INLS) represents a company involved in inland waterway transport, which is a significant part of the shipping industry. Inland shipping plays a vital role in



transporting goods within countries through navigable rivers and canals. As a company involved in inland waterway transport, Inland Shipping Srl has connections with stakeholders in the inland shipping sector, including other shipping companies, port operators, and relevant industry organizations. Their involvement in the AENEAS project provides an opportunity to reach stakeholders within the inland shipping community and promote sustainable energy storage solutions.

Constructiones Navales P. Freire SA (FS) is a company involved in constructing vessels for the maritime industry. As a shipbuilding company, Constructiones Navales P. Freire SA is closely tied to the maritime and shipbuilding industries. Their network includes stakeholders such as ship owners, maritime authorities, and industry clusters. Their involvement in the AENEAS project allows them to disseminate project outcomes and innovations within the maritime community, contributing to a Europe-wide outreach.



4 Methodology

The AENEAS project aims to achieve its impact objectives through an effective dissemination, exploitation, and communication strategy. The methodology of dissemination in the AENEAS project is aimed at maximizing impacts by focusing on active stakeholder engagement and disseminating tangible exploitable results to the relevant audience at the right time. The project employs a four-step approach to achieve its objectives:



Step 1: **Identify Stakeholders, Exploitable Results, Milestones, and Target Groups.** The first target group for the exploitable results is the AENEAS stakeholder group (SG). A list of relevant stakeholders has been established. The SG will include representatives from <u>ZEWT</u> and FMAR members, industry clusters, and policy makers who can provide input and feedback on the final roadmaps and project results. Potential target groups (TG) and key messages to be delivered to them have been summarized in **Table 3**.

Target Group	Main Partners	Key Message	Communication/Exploitation Channels
TG1 - Ship Operators	SOER, FV, FMAR, GRIM, INLS	Trade off different ESS (SSB, SC) vis-à-vis traditional batteries	Conferences, meetings, seminars, social media; Stakeholder workshops
TG2 - Ports and Terminals	SOER, FV, FMAR	Advantages of electrification	Conferences, meetings, social media; Stakeholder workshops
TG3 - Technology Providers and Integrators	ABEE, CEA, FM, I2M	Lab-scale prototype	Conferences, meetings, social media; Stakeholder workshops; Consultancy services
TG4 – Shipyards	FS, SOER, FV, GRIM	Vessel design smarter for optimal efficiency	Conferences, meetings, social media; Stakeholder workshops
TG5 - Maritime Associations	SOER, FV, FMAR	Zero emissions solutions in the shipping sector	Conferences, meetings, social media; Stakeholder workshops
TG6 - Modeling and Engineering Services	SIE, CEA, UVA, AUTH, I2M, FM	Advanced model-based ESS design	Conferences, social media; Stakeholder workshops; Courses, workshops, seminars
TG7 - Scientific Community	ISSN, FV, UVA, CEA	Electrification of marine sector	Conferences, social media; Stakeholder workshops
TG8 - Policy Makers	All partners	Electrification of marine sector	Conferences, social media; Stakeholder workshops

Table 3: Target Group

Step 2: Identify Appropriate Timeline and Link Milestones and Results

The consortium has established a coherent communication, dissemination, and exploitation timeline that links expected results to specific dates in time along the timeline.

The project owners are responsible for disseminating the results at the indicated dates and times to ensure timely communication.



Step 3: Key Messages and Dissemination and Communication Tools

AENEAS will create key messages tailored to each target group, communicating the benefits and vision of the project and linking them to the innovations and results developed in different work packages.

Clear messages will be disseminated through newsletters, press releases, and other means, with variations depending on the target audience.

Specific target groups will include the SG, technology platforms, waste material suppliers, investors, OEMs, specialized media, experts in the field, EU/national/local policy makers, or the general public.

Dissemination tools have be selected based on the specific goals and target audience, including presentations at external events, technical publications, articles, networking events, virtual events, print media, interactive events, roadshows, and more.

Step 4: Implement Activities

Dissemination activities will begin from Month 1 of the project and continue throughout the project duration. The success of dissemination activities will be evaluated monthly to ensure that the measures are effective, reaching their aims, and executed on time. Monitoring of dissemination activities will be part of the executive board's monthly conference calls.



5 Stakeholders Engagement and mobilization

The ambition of AENEAS is to improve the overall energy efficiency and drastically lower energy consumption in waterborne transport vessels. It aims to develop innovative electric energy storage systems that are safe, cost-competitive, and advanced beyond traditional batteries, enabling hybrid and fully electric shipping under all conditions and applications, while significantly contributing to the decarbonization of the maritime sector.

The strategy to engage the stakeholders in the project involves a multifaceted approach that emphasizes open communication, active participation and mobilization and collaboration. The stakeholder engagement strategy actively involves stakeholders in order to gather their input, perspectives, and feedback throughout the project.

The following activities are part of the stakeholders engagement process:

- Distribution of tailored questionnaires to gather stakeholder feedback on technical, environmental, and economic aspects of the project.
- Organize workshops and events for focused discussions and brainstorming sessions.
- Conduct live demonstrations to showcase clean energy storage solutions' benefits.
- Provide regular updates and progress reports to keep stakeholders informed.
- Offer individual consultations to address specific stakeholder needs.
- Establish an online collaboration platform for interaction and resource sharing.
- Acknowledge stakeholders' contributions and recognize their support publicly.
- Seek feedback to continuously improve the engagement process.
- Having formal support letters signed.

The above-mentioned activities will surely contribute to raise awareness and impact on the concrete results achieved and, on the need, to ensure project long-term duration but supporting also the purpose of building a consolidated network among the maritime shipping ecosystem and key industry stakeholders and technological partners at the appropriate level. All identified dissemination tools and networking activities will be relevant to communicate project outcomes to actors outside the consortium and at the same time to take into account their contribution concerning the project work and afterwards exploit project results in the long-term. To this end, concrete actions have been planned since the early stages of the project, following a methodology of engagement and future participation to relevant occasions and events, in order to gather external experts and stakeholders feedback from various levels through conferences, thematic meetings or research workshops and establishing a long-term dialogue.

Within this abovementioned framework, the following *Table 4* reports preliminarily identified stakeholders, including that one who signed the letter of support to be part of the Advisory Board. This list will be constantly updated by all partners, taking into account the expected stakeholders to be reached.

Stakeholder Typology	Name	Advisory Board Member
Shipping Companies and	Aclunaga	X
Maritime Industry	Astilleros De Mallorca	Х
	Astilleros Canarios S.A (Astican)	Х
	Jan De Nul	
	Maritime Battery Forum	Х

Table 4: Stakeholders List

	VARD	
Technology Providers (e.g.	Lithops Batteries	
Battery Providers)	Elinsa	
	Corvus	
	Spear Power System	
	Akasol	
	Est-Floattech	
	CATL	
Research and Academic	University of Trieste (Engineering and Architecture Department)	
	University Of Genova	
Other Industry Associations and Companies	Ecospray	
	Carlos Freire Trigo Company	X
	Asime - Asociación De Industrias Del Metal Y Tecnologías Asociadas De Galicia	
	Vdl Aec Maritime	

By delivering tailored messages to each stakeholder group, the stakeholder engagement process can be more effective in garnering support, encouraging active participation, and driving the success of the AENEAS project's objectives. **Table 5**, below, offers examples of how messages can differentiate according to the different stakeholders to enlarge impact and exploitation of project results properly.

Table 5: Key Messages examples

Stakeholder Group	Key Messages
Transport Sector and Maritime Industry	- Address the high reliance on fossil fuels and 37% of CO2 emissions.
	- Emphasize the need for clean, climate-neutral shipping and waterborne operations.
	- Highlight AENEAS's focus on innovative solutions for decarbonizing waterborne transport.
	- Showcase the opportunity to implement advanced energy-efficient solutions.
Technological Providers (e.g. Battery Technology Providers)	- Stress the importance of reducing emissions and achieving higher energy efficiency in vessels.
	- Highlight AENEAS's commitment to developing tailor-made electric energy storage systems.



	- Address limitations of traditional batteries and their suitability for waterborne transport.	
	- Emphasize AENEAS's focus on advanced energy storage solutions like solid-state batteries and supercapacitors.	
Research and Academic Institutions	- Emphasize the need for research and innovation in clean energy solutions for maritime transport.	
Industry Associations	- Stress the role of AENEAS in promoting sustainability and greening the maritime transport industry.	
	- Stress the significance of AENEAS in developing customized energy storage solutions for the maritime industry.	
	- Encourage involvement and collaboration to adopt zero-emission energy storage systems.	
End Users (Transport Operators)	- Address specific operational needs and requirements for different waterborne applications.	
	- Showcase AENEAS's solutions for peak power, zero-emission maneuvering, and integration with renewable sources.	
General Stakeholder Community	- Highlight AENEAS's ambitious objectives in improving energy efficiency and reducing energy consumption.	
	- Emphasize AENEAS's innovative approach to developing advanced electrical energy storage systems.	

A *Stakeholders Questionnaire* has been designed as a tool to collect feedback from external stakeholder. It will be distributed among external relevant stakeholders of each partner organization network, whose support and feedback will be relevant for future development of AENEAS project.



5.1 Joint collaboration with Similar EU Projects, Initiatives and sharing of best practices

Within the objectives of the project will be encouraged interaction with other project acting in the domain of electrification/energy management of waterborne transport vessels in order to exchange know-how, experiences and best practices. In order to achieve the above, the consortium will establish all the needed mechanisms to create synergies with similar projects that will be adopted for the whole project implementation.

A first collaboration has been already approached with SEABAT project. SEABAT is developing a modular full electric maritime hybrid battery concept to substantially reduce the costs of large waterborne battery systems. The project has been financed under Horizon 2020 and it started on January 1st 2021 and will run for 4 years. In particular, structured joint actions will be implemented during the lifetime of the project, since there are common partners between AENEAS and SEABAT: Flanders Make (coordinator of both), CEA, ABEE, SOER.

The consortium will work to organize joint event session with other similar projects, whose main objective is related to energy management of waterborne transport vessels as the main drivers of change and sustainability of the maritime industry.

6 Dissemination tools

6.1 Project Corporate identity

An attractive and strong project corporate identity is crucial to ensure better visibility and to create a coherent and highly recognisable image of the project. The corporate identity uses a set of graphic elements to easily identify the AENEAS Project. The overall aim is to create a coherent and highly recognisable image of the project to support communication and dissemination measures, such as publications and all kinds of written as well as visual communication about on-going and completed research activities.

1. Project logo

The design of the logo was guided by the following principles:

- Symbolic representation of the content of the project. The focus was on some keywords: battery, vessel, energy storage, SC, SSB
- Uniqueness and appealing design
- Green colour to stress the environmental advantages of electrification of waterborne transport vessels.



Figure 2: AENEAS project logo



The AENEAS logo (Figure 2) features a figure of a vessel, serving as a visual representation of the project's focus on maritime activities. Inside the vessel, there are two distinct energy storage systems, specifically solid-state batteries and supercapacitors, symbolizing the project's emphasis on advanced energy technologies. The logo contains the project abbreviation AENEAS with the first letter "A" integrated into the vessel's structure, further reinforcing the connection between the project and the maritime domain.

This logo will be used in all communications (written deliverables, presentations, fact sheet, newsletter, social media, etc.) to increase project visibility.

2. Branded templates

Common templates for written deliverables (MS Word, see format of this report), Minutes of Meeting and AENEAS presentations (MS PowerPoint) have been created. In order to have a consistent brand identity, the design of the templates follows the same style. This is visualised in Figure 3 and 4.



Figure 3: AENEAS presentation template



		REAEAS	
	Minutes of Date: Di	of meeting	
Meeting organiser:			
Place:	Online Meeting / face to fac	e meeting	
Type of meeting	GA/EB/WP/XX Meeting	GA/EB/WP/XX Meeting	
Subject:			
Attachments:	if available		
Agenda	See also another example for the agenda in the table below		
	Pa	rticipants	
	Name	Org	anisation
Item no.		Agenda Topic	
ltem no.		Agenda Topic	
item no.		Agenda Topic	
Item no.		Agenda Topic	
Item no.		Agenda Topic	

Figure 4: AENEAS MoM template

6.2 Social media

To establish the social media presence on e.g. LinkedIn (<u>https://www.linkedin.com/company/aeneas-eu-project/</u>) a web campaign will be developed. Results and activities regarding AENEAS project will be therefore disseminated as social media channels represent an important way to be in touch with the relevant community.

i2m has set up the social media for AENEAS project and will be responsible for editing and for carrying out updates on a regular basis. All partners will support the social media campaign of the project (input, posts sharing, promotion etc.).

6.3 Project website

The official project website (<u>www.project-aeneas.eu</u>) will be launched in M6 and it follows the EU recommendation regarding usability and accessibility. As already described in deliverable D8.3 - Data Management Plan, AENEAS website will remain available to the public for at least 2 years after the end of the project.

The main objectives of the project website as well as the description of the main structure have been reported in D7.1 - Project Website.

i2m is responsible for editing and for carrying out website updates on a regular basis, including timely uploading of project results, papers published, deliverables released or news items to be reported. All partners will contribute to maintain the project website providing relevant input such as participation at events, papers and articles, information on the progress of work, dissemination activities etc. Moreover, all partners are encouraged to include a mention and a link to the project website (www.project-aeneas.eu) from their own organisation's website.



6.4 General project presentation

To effectively communicate the goals and outcomes of the project, two types of project presentations will be developed: one tailored for the general public (non-technical) and the other for experts in the field of port and harbour engineering and electric energy management (technical). These presentations will be designed to convey understandable and well-structured messages about the project. The project presentations will be made easily accessible on the project SharePoint, allowing all partners to utilize them when presenting the project at internal and external events. It is strongly encouraged that partners adapt the content of these presentations to suit the target audience and specific events, ensuring that the information is relevant and engaging.

The general project presentation consists of several key sections, including context and mission, expected impact, main technologies, and an overview of the consortium. This presentation will be updated throughout the project as results become available.

i2m will coordinate the activities for the creation of the project presentation, supported by WP7 leader (SOER) and all partners by providing relevant inputs and graphical pictures.

6.5 Flyer or Fact sheet

To increase the visibility of the project among specific target group and encourage people to subscribe to the project newsletter, a project flyer or fact sheet will be created and will be widely disseminated to the contacts of the partners and on request. The flyer will have an attractive appearance and contain details on the project objectives, scope, targets and foreseen outcomes. The flyer will be made available on the website and all partners are encouraged to share the project flyer via organisation webpage, social media and by email to their network. Main sections of the project factsheets will include project summary, objectives, expected impact and consortium. The flyer will be updated once relevant results can be made public.

i2m will coordinate the activities for the creation of the project flyer, supported by the WP7 leader (SOER) and all partners by providing relevant inputs and graphical pictures.

An example of fact sheet of the AENEAS project. **Project Overview:**

- Project Name: AENEAS (innovAtive ENErgy storage systems onboArd vesselS)
- Duration: [Start Date] to [End Date]
- Funding Source: [Funding Organization or Grant]
- Project Coordinator: [Lead Organization]
- Consortium Partners: [List of Consortium Partners]
- Project Website: [URL]

Objective: AENEAS aims to revolutionize waterborne transport by developing innovative electric energy storage systems that improve energy efficiency and drastically reduce emissions in vessels. The project seeks to contribute to the decarbonization of the maritime sector and promote sustainable energy solutions for a greener future at sea.

Key Technologies:

- Solid-State Batteries (SSB): High-energy density batteries suitable for long-distance navigation.
- Supercapacitors (SC): High-power density energy storage for peak power demands and loading.



• Hybrid Systems: Combining SSB and SC for vessels requiring high energy and power density storage, especially those equipped with renewable energy sources.

Project Impact:

- Significantly lower greenhouse gas (GHG) emissions from waterborne transport.
- Improved energy efficiency leading to reduced fuel consumption and operational costs.
- Advancement of cutting-edge energy storage technologies tailored for the maritime industry.
- Promotion of a cleaner and more sustainable maritime sector.

Research and Development:

- Extensive research conducted to optimize the performance and safety of SSB, SC, and hybrid systems.
- Collaboration with academic institutions and research organizations for knowledge exchange.
- Rigorous testing and validation of energy storage solutions under real-world conditions.

Industry Collaboration:

- Engagement with shipping companies, shipbuilders, and maritime professionals for practical implementation.
- Establishment of partnerships to drive the adoption of AENEAS's technologies in waterborne transport.
- Joint efforts with industry stakeholders to accelerate the transition towards sustainable energy solutions.

Dissemination and Outreach:

- Regular newsletters and publications sharing project progress and research findings.
- Participation in key industry events, conferences, and workshops to showcase AENEAS's innovations.
- Media engagement to raise public awareness about the project's contributions to a greener maritime industry.

Policy Influence:

- Engagement with policymakers and regulatory bodies to advocate for supportive policies for energy-efficient transport.
- Contributions to policy discussions and initiatives promoting clean energy adoption in the maritime sector.

Project Vision: AENEAS envisions a future where waterborne transport operates with minimal environmental impact, powered by advanced electric energy storage solutions. By fostering innovation, collaboration, and sustainable practices, AENEAS strives to shape a more resilient and cleaner maritime industry for generations to come.



6.6 Newsletters

To keep stakeholders informed of the progress of the project, relevant and interesting news will be communicated to all subscribers through a circulating newsletter. The timing of the publication will be decided based on relevant results of the project (half-yearly).

The newsletter will be prepared by i2m with the inputs received from the partners and distributed via Mailchimp. Each newsletter should be designed to engage the audience and provide valuable insights into the project's progress, achievements, and contributions towards a greener and more sustainable maritime industry. It is essential to keep the newsletters informative, visually appealing, and easy to understand for a diverse readership, including industry professionals, researchers, policymakers, and the general public.

Newsletter Number	DATE	Content/Theme	
Newsletter 1		Introduction and Project Overview	
		- Introduce the AENEAS project and its objectives	
		- Highlight the importance of decarbonizing waterborne	
		- Showcase consortium members, stakeholders, and	
		- Overview of innovative electric energy storage systems	
Newsletter 2		Research Progress and Technology Advancements	
		- Update on research and development progress	
		- Technological advancements achieved	
		- Successful tests, trials, or pilot projects	
Newsletter 3		Industry Impact and Collaborative Efforts	
		- Success stories and case studies of industry adoption	
		- Collaborations with maritime companies and shipbuilders	
		- Positive environmental impact achieved	
Newsletter 4		Dissemination Highlights and Future Roadmap	
		- Summary of dissemination activities	
		- Media coverage and public engagement efforts	
		- Future roadmap, upcoming events, and milestones	

Table 6: Possible Outline of the 4 Newsletters

6.7 Publications

To further promote the research outputs, AENEAS will undertake all necessary efforts to translate research outputs and to submit them in the scientific journals.

The project scientific dissemination will be supported by publications in peer reviewed journals and conferences. In the following Table, an initial list is presented, containing the names of the potential journals and magazines that will be targeted. This list is by no means exhaustive and will be further enhanced throughout the project, aiming at tackling relevant journals and maximising the impact.

List of potential journals/magazines for publications		
International Journal of Electrical Power & Energy Systems, IF 4.630		
Journal IEEE Transactions on Energy Conversion, IF 4.312		
Journal Energy Conversion and Management, IF 10.4		
Journal of Energy Storage, IF=9.4		



Resources, Conservation & Recycling, IF = 10.204	
Technological Forecasting and Social Change, $IF = 9.01$	

FMAR as leading partners in the dissemination activities within the AENEAS project, will be committed to ensuring the wide accessibility and visibility of publications and public deliverables. As outlined in the D8.3 Data Management Plan, all publications and public deliverables will be uploaded to both the AENEAS website and the Zenodo Open Access platform. These platforms will serve as primary repositories for data outputs and storage, enabling easy access and dissemination of project-related information.

6.8 Conferences

AENEAS will organise or participate in various public events to facilitate consultations, promote knowledge exchange and disseminate project information. These events serve as valuable opportunities to engage with the wider community, raise awareness about the activities and outcomes of AENEAS and foster public interest in the project.

List of potential events where AENEAS can be presented			
ICBEBG 2023 - International Conference on Blue Economy and Blue Growth			
SEAFUTURE 2023 – 8th edition, Green & Blue Innovation Hub			
MID.MED Shipping & Energy Days – 3rd edition			
5th Oslo Battery Days Conference			
NEIS 2023 - Conference on Sustainable Energy Supply and Energy Storage Systems			
Europe 2 - Moving Towards a Carbon-Free Future at Sea			
ICAE 2023 - International Conference on Applied Energy			
London International Shipping Week			
Oceans Conference & Exposition			
Genoa Shipping Week – 6th edition			
Maritime Hybrid, Electric & Hydrogen Fuel Cells Conference			
ICREC 2023 - International Conference on Renewable Energy and Conservation			
Adriatic Sea Forum – 6th edition			
European Maritime Day			
62ND International Congress of Naval Architecture, Marine, Technology and Maritime Industry			

Table 8: Potential events

As a first step of commitment to the dissemination at the external events, an initial list of potential conferences, trade fairs and workshops has been compiled (see above the list). It is a non-exhaustive list of events that will be constantly updated with relevant events in the lifetime of the project.

6.9 Workshops

In addition to the dissemination efforts mentioned earlier, the AENEAS project will also undertake various activities to engage stakeholders and promote knowledge sharing. These activities include organizing workshops with the Stakeholders' Group as well as a final project event.

As the project is currently in its initial stages, the specific requirements and target audience for these events will be further defined and outlined in the updated version of the Dissemination



Plan. Both requirements and target audience will be defined in view of the relevant topics in these particular stages of the project.

The workshops with the Stakeholders' Group and the Final project event serve as important platforms for engaging stakeholders, fostering collaboration, and sharing project outcomes. These activities aim to facilitate meaningful interactions and exchange of knowledge with key stakeholders involved in the project.

Workshop Title	Country	Date	Organiser
1st Stakeholder Workshop	Spain, Valencia	6 October	Soermar
2 nd Stakeholder Workshop	TBD	M20	Soermar
3 rd Stakeholder Workshop & Final Event	TBD	M36	Flanders Make & Soermar

Table 9: Planned Workshops

This First Workshop will be organized with the support of all partners and will be addressed to external stakeholder to present project results and main ambitions, as it will represent a concrete action to reach a largest number of stakeholders of the energy sector / industrial sector / maritime sector. A detailed dissemination strategy has been implemented to engage a wider audience of stakeholders from different Eu countries. To this aim a database with the list of stakeholders has been created and each partner organization will be asked to mobilize its networking. Dedicated survey will be submitted to stakeholders, in order to collect their feedbacks.

6.10 Animation / Video

To enhance knowledge exchange, two captivating project animations or videos will be created. Utilizing animation techniques adds an extra layer of realism to the content, resulting in a visually engaging and memorable message. The animations or videos will serve as powerful tools for engaging with stakeholders, project partners, and the wider audience. They will present information in an easily digestible and enjoyable format, making it easier for viewers to comprehend and retain key messages.

6.11 E-lectures

UVA and AUTH will create a series of e-lectures aimed at disseminating the project's innovations and results. These informative digital lectures, available in the form of presentations or videos, will serve as educational resources for both the general public and the scientific community. The presentations or videos will serve as valuable resources for individuals interested in the project's subject matter, including members of the scientific community who seek to stay informed about the latest developments in the field.



7 Monitoring and verification tools

The monitoring of dissemination activities is a regular and integral part of our project's implementation. The monitoring process is conducted periodically, and the progress and outcomes are recorded in a specific template designed by WP7 leader, as a Reporting log, which is annexed to the present document (Annex 1). This *Dissemination Record Template* serves as a comprehensive record to track the dissemination efforts effectively made by each partner. In particular, each partner will be asked to track following aspects:

Table 10: Dissemination Record Template

Dissemination Record Template
Tracking all types of dissemination activities conducted (organizing or presenting in a conference/workshop/social media, etc) where stakeholders have been informed about the project
Tracking of scientific or non-scientific publications, thesis/dissertation publications, articles in magazines
List of interesting events from 2023 – 2025, where AENEAS partners could attend
List of potential journals and magazine, where partners could publish AENEAS results

In evaluating the success of dissemination efforts, quantitative indicators that gauge the reach and impact of activities have been identified during the proposal phase preparation. These indicators are carefully selected to measure the effectiveness of the dissemination process, including metrics such as the number of publications, media coverage, website traffic, social media engagements, conference presentations, and workshops conducted. These quantitative indicators provide valuable insights into the extent to which our project's results and findings are being disseminated to our target audience and beyond. Each of these indicators is designed to track the dissemination activities' effectiveness and reach in terms of providing information, engaging stakeholders, and disseminating research findings throughout the project's duration and measure the success of the dissemination efforts to ensure that the project's goals for communication and outreach are achieved.

Table 1	1: Key	Performance	Indicators
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Indicator	Purpose	Key Performance Indicators			
Project updates on AENEAS	General information	≥ 8 updates/year ≥ 500			
Organization of workshops	Knowledge exchange and	≥ 3 workshop/year			
Participation in Conferences	Knowledge exchange with	> 20 conferences and meetings			
Open Access Publications	Dissemination of research	> 10 publications			
Online Publishing (online	General information	≥ 4 newsletters			

Monitoring activities will be conducted at regular intervals, with assessments taking place periodically. By implementing proactive measures and maintaining open communication,



AENEAS aims to overcome any risks that may arise and maintain steady progress towards its goals.

These risks encompass various aspects of the dissemination process, including communication within the consortium, strategy development, outbound communication efforts, and stakeholder engagement. By actively monitoring and addressing these risks throughout the project's duration, AENEAS aims to ensure the effectiveness and success of its dissemination activities.

The monitoring measures include:

- **Regular Reporting**: Establish a reporting schedule to track the progress of dissemination activities and provide updates on the status of each activity and its performance against the established KPIs.
- **Stakeholder Engagement**: Monitor the engagement of stakeholders during the dissemination process. Evaluate the level of interest and feedback received from stakeholders to assess the effectiveness of the communication efforts.
- **Feedback Mechanisms**: Implement feedback mechanisms to gather input from target audiences. This could be through surveys, focus groups, or direct communication channels to assess the effectiveness and relevance of the dissemination materials and activities.
- **Partner Contributions**: Track the contributions of each project partner to the dissemination plan. Ensure that all partners are actively engaged in their designated tasks and fulfilling their responsibilities.

7.1 Impact Assessment

In order to monitor dissemination activities and ensure its major impact, it is relevant also to mention general impacts that the AENEAS project will measure with various tools and indicators since they will affect also the success of project results promotion and stakeholders' engagement plan (WP7). These tools will indeed help to assess the project's effectiveness and the extent of its contributions to the intended outcomes, including promotion of project results through dissemination activities. Here are some of the key tools and indicators used to measure project impacts and that can be considered relevant also for the success of the promotion of project results under WP7 dissemination activities:

1. **Key Performance Indicators (KPIs):** KPIs are specific, measurable metrics that track the project's progress and success in achieving its objectives. They provide quantitative data to evaluate performance. Examples of KPIs in the AENEAS project include the number of energy storage systems (ESS) installations, emissions reductions achieved, energy efficiency improvements, cost savings, etc.

2. **Stakeholder Surveys:** Surveys are conducted to gather feedback and opinions from stakeholders, including ship operators, technology providers, scientific community, and policymakers. The surveys help gauge stakeholders' perception of the project's impacts and its contributions to the waterborne transport sector.

3. **Case Studies**: Case studies showcase specific examples of how the AENEAS project's innovations and solutions have been applied in real-world scenarios. They highlight the practical benefits and potential replicability of the project's outcomes.



4. **Demonstrations and Pilots:** Full-scale on-board demonstrators and pilot projects showcase the viability and potential of innovative energy storage systems in waterborne transport. Their performance and results contribute to measuring the impact of the project's technologies.

5. **Publications and Citations:** The number and quality of publications, including academic papers and technical reports, serve as indicators of the project's scientific impact and contribution to the research community.

6. **Policy Adoption and Integration:** The adoption of AENEAS project results in policies or regulations related to waterborne transport and energy storage systems demonstrates the project's impact on shaping the industry's future

7. **Energy Efficiency and Emissions Reductions:** Quantifying the improvements in energy efficiency and reductions in greenhouse gas emissions resulting from the adoption of AENEAS innovations are essential indicators of its environmental impact.

8. **Cost-Benefit Analysis:** Assessing the cost-effectiveness of the project's solutions compared to traditional approaches can indicate their economic impact and potential for widespread adoption.

9. **Business and Market Developments:** Monitoring the growth of new business opportunities and markets related to energy storage systems in waterborne transport is another way to measure the project's economic and commercial impact.

8 Conclusions

Effective dissemination is the linchpin that connects the project's breakthroughs and advancements to the target stakeholders, including industry and technological professionals, policymakers, researchers, and the public. By disseminating comprehensive information about potential innovative energy storage systems, solutions to improve energy efficiency, and upscaling proven solutions the AENEAS project engages with diverse stakeholder, fostering collaboration and knowledge exchange. As a result, awareness, understanding, and acceptance of the project's outcomes are heightened, which ultimately contributes to the realization of impact objectives such as achieving a comprehensive understanding of innovative energy storage system, improving energy efficiency and achieving climate neutrality in waterborne transport, and upscaling solutions for various ship types and operational scenarios. Dissemination and exploitation are interdependent and mutually reinforcing processes and they will be interlinked to all WPs: the dissemination of research findings realized during the project implementation will not only foster awareness but also attract interest and potential collaborators. This, in turn, enhances the prospects for effective exploitation and the successful deployment of project results in real-world scenarios. Identifying and engaging stakeholders from different target groups, directly links to multiple impact objectives. By building strong stakeholder networks and identifying early adopters of AENEAS technologies, the project ensures that the innovations and solutions gain traction in the industry, leading to broader scalability and European leadership for energy storage systems.

Dissemination activities (WP7) will be closely linked with exploitation (WP6) since it will take the project's results to the next level by turning them into practical, real-world applications with tangible benefits. The dissemination and communication activities of the project, plays a



critical role in achieving several impact objectives. By engaging with stakeholders, such as ship operators, ports, technology providers, system integrators, and policymakers, the project maximizes the impact of its research findings. Through this engagement, the AENEAS project ensures that its energy-efficient solutions are adopted, accepted, and integrated into the maritime industry, accelerating the process towards climate neutrality and technical feasibility and realizing the objective of having two full-scale on-board demonstrators by 2027.

Stakeholder networks will be used indeed to identify early adopters of AENEAS technologies:

Step 1: Identify Stakeholders, Exploitable Results, Milestones, and Target Groups

The first target group for the exploitable results is the AENEAS stakeholder group (SG). A list of relevant stakeholders will be designed.

Step 2: Impact Analysis, Business Models, and Exploitation (Work Package 6)

This step involves assessing the environmental benefits, cost competitiveness, and safety issues of the proposed technologies for a number of case studies in comparison to state-of-the-art battery systems. It also aims to define pathways for AENEAS solutions to contribute to EU/IMO decarbonization strategies for waterborne transport.

Step 3: *Exploitation and Protection of Intellectual Property (IPR)*

Addressing both market and technical issues associated with commercializing project results. It includes developing an IPR strategy among partners, analyzing international IPR status, and applying for patents where appropriate.

Step 4: *Future Deployment of Technologies*

Define pathways for future deployment of technologies. A roadmap will be created towards full-scale on-board demonstrators for two AENEAS ESS solutions by 2027. The roadmap will aim to obtain maximum impact through market segment and geographical expansion of AENEAS solutions to diverse waterborne applications.

To conclude, the following tab will summarize the abovementioned interlinkages between WP7 and other WPs and will illustrate how *Dissemination and Communication activities* will be strictly linked to the success of project implementation in order to ensure an effective stakeholder engagement plan and promotion of project results:

Deliverable D7.2



Expected Results Components model of SSB Components model of SSB Vessel simulation models Electro-thermal and safety modelling on SSB Component models of EMS/PMS Vessel propulsion optimization process Design and BoP for SSB Design and prototyping of the modules Hybridization of SSB/SC HIL setup design of ship components and power converters Validated model-based impact assessment Lab-scale prototype and multipurpose HIL environment	D.& C.& E Dissemination towards the scientific community through publications, seminars, and conferences; policy makers through conferences; public events, and press releases; industries and business supporting organizations through social networks, 4 newsletters, 2 project animation/videos, and E-learning modules <u>Community and industry through conferences</u> and international scientific journals; the general public, public agencies, and policy makers through press/social media releases and public events. <u>Exploitation</u> through licensed agreements, validated prototypes, and/or consultancy	Outcomes • Comprehensive understanding of innovative ESS other than batteries for waterborne transport (SO1) • Solutions to improve energy efficiency and make waterborne transport climate neutral (SO2) • Technical feasibility, efficiency, safety, cost competitiveness compared to batteries (SO3) • Knowhow regarding ESS design, modelling and prototyping • Decarbonization strategies for future maritime applications based on EU/Intl CO2 legislations	 Targeted impact Upscaling of proven ESS for a broad range of ship types (e.g. IWT, ferries, short sea shipping) an alternative to batteries (SOS) Ensuring European leadership fo energy storage solutions that wi be fit-for-purpose for diverse waterborne applications (SO6) Early deployment of climate neutral fuels and significant electrification of shipping (Wi11) Strong technological and operational momentum toward achieving climate neutrality (W Fully developed electric charging
 Trade-off between different ESS and traditional batteries ESS based on SSB, SC and Hybrid 	services for modeling and analysis. Including, Identification and engagement of stakeholders to achieve project objectives and realise impact	Roadmap to 2027 • Two full scale on-board demonstrators by 2027 (SO4). • Energy:< 10 kWh SSB;< 0.1 kWh for SC; <10 kWh Hybrid • Max power: < 5 kW SSB;< 100 kW for SC; <100 kW for Hybrid	 (W11) Competitive waterborne industries, including the globally active European maritime technology sector (WI6)

Figure 5: Summarizing Dissemination, Communication and Exploitation activities in AENEAS



1. References

- GRANT AGREEMENT Project 101095902 AENEAS
- RIA Proposal number: 101095902 Proposal acronym: AENEAS. Topic: HORIZON-CL5-2022-D5-01-02 Type of Action: HORIZON-



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1	FM	FLANDERS MAKE					
2	CEA	COMMISSARIAT A L'ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES					
3	ABEE	AVESTA BATTERY & ENERGY ENGINEERING					
4	SIE	SIEMENS INDUSTRY SOFTWARE SAS					
5	5 UVA VAASAN YLIOPISTO						
6	I2M	I2M UNTERNEHMENSENTWICKLUNG GMBH					
7	GRIM	GRIMALDI EUROMED SPA					
8	INLS	INLAND SHIPPING SRL					
9	FV	FUNDACION DE LA COMUNIDAD VALENCIANA PARA LA INVESTIGACION,					
Í		PROMOCION Y ESTUDIOS COMERCIALES DE VALENCIAPORT					
10	AUTH	ARISTOTELIO PANEPISTIMIO THESSALONIKIS					
11	SOER	FUNDACION CENTRO TECNOLOGICO SOERMAR					
12	12 FMAR FORMARE- POLO NAZIONALE PER LO SHIPPING SRL						
13	ISSN	INSTITUTE FOR SUSTAINABLE SOCIETY AND INNOVATION					
14	FS	CONSTRUCCIONES NAVALES P FREIRE SA					

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Abbreviations and Definitions

Term	Definition
C&D	Communication and Dissemination
Partners Name and acronym	Please refer to Table 2: Members of the
	Consortium
SG	Stakeholder Groups
ZEWT	Zero Emission Waterborne Transport
TG	Target Group

List of Figures

Figure 1: Geography of the Consortium	8
Figure 2: AENEAS project logo	19
Figure 3: AENEAS presentation template	20
Figure 4: AENEAS MoM template	21
Figure 5: Summarizing Dissemination, Communication and Exploitation activities in	
AENEAS	31

List of Tables

Table 1: Deliverables' Timeline	7
Table 2: The members of the Consortium	8
Table 3: Target Group 1	4
Table 4: Stakeholders List1	6
Table 5: Key Messages examples1	7
Table 6: Possible Outline of the 4 Newsletters 2	:4
Table 7: Potential journals/magazines	:4
Table 8: Potential events	25
Table 9: Planned Workshops2	6
Table 10: Dissemination Record Template 2	27
Table 11: Key Performance Indicators	27



Annex 1

Dissemination Record Template

Type - Pa - Pa - Pa - Vork - Ory - Pre - So - Vic - Oti - Oti	vitiopation in a Conference tritopation in a Workshop tritopation in an Event other shop parksation of a workshop / c parksation of a workshop / c par	than a conference or conferences I campaign			ADHEAS	VP7: List of part	ticipations at cor	Herences and events (2023 - 2026)			
No	articipating organizati	Contact person	Туре	esenter(s)/Attendee	Title	Date	Location	Short description	Targeted Audience	Link	Comments
			-			-	2023			-	
1											
4											
-											
-											
-											
							2024				
							LOLI		1		
h											
T -											
-										-	
							2025	1			
							Louis				
							2026				
-						0					
ŀ	In Participations Z - Publications A - Potential events B - Journals & Magazines (+)										