

D6.1 Dissemination, Exploitation, and Communication Plan, IPR management

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1. Executive summary

The present report constitutes deliverable D6.1, a document produced in the framework of WP6 “Dissemination, communication and exploitation”, Task 6.1 “Dissemination and communication of the project results” and Task 6.2 “IPR Management”.

One of the main objectives of WP6 is to raise the awareness the technologies proposed by V-ACCESS to the scientific community and other potential stakeholders through a detailed plan of dissemination activities. The second main objective of WP6 is to review and update the process that identifies, assesses, and manages the intellectual property rights (IPR) generated during the project.

Therefore, D6.1 has two main focuses:

1. the identification of dissemination objectives, the definition of key-messages, the identification of target groups and audiences, content formats, as well as on the plan of these activities.
2. the creation of an intellectual property (IP) register in which innovative ideas that have potential for further exploitation are captured.

Actions are then identified to maximise the probability of creating impact on the scientific and industrial communities.

This deliverable has the following sections:

- Section 2 defines abbreviations and acronyms used in this report;
- Section 3 describes the project’s background and its current situation to identify the best strategy to achieve an effective communication of the project’s results to different audiences;
- Section 4 clarifies the project’s main objectives and dissemination phases;
- Section 5 introduces the project’s target audience;
- Section 6 presents an overview of V-ACCESS dissemination strategy,
- Section 7 describes the project’s external communication, from project identity to IT communication activities;
- Section 8 discusses the IPR protection strategy
- Section 9 illustrates the IP register
- Section 10 draws the conclusions.



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2. Abbreviations and acronyms

ESS	Energy storage system
GDPR	General Data Protection Regulation
HiL	Hardware in the loop
IPR	Intellectual property right
KPI	Key Performance Indicators
NDA	Non-disclosure agreement
SMES	Superconducting magnetic energy storage
TCO	Total cost of ownership
TRL	Technology readiness level
ZEWT	Zero-emission waterborne transport



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3. Background

3.1. Current situation of the project

V-ACCESS aims at developing disruptive solutions for shipboard power systems to enable the integration of low-carbon short-term energy storage like supercapacitors and SMES to the main switchboard. V-ACCESS encompasses power converters for these energy storage to enable a flexible control of the power system with an objective of alleviating batteries from supplying power peaks. The control will enable an optimisation of the power flows of the different energy storage technologies and, hence, a much better utilisation of their capabilities. As a result, the energy storage system is expected to be lighter and cheaper and with a longer lifetime compared to an equivalent system made of batteries only.

Concerning the current situation of V-ACCESS, the consortium has elaborated the following SWOT analysis in order to understand how to best overcome challenges and future obstacles regarding the communication and dissemination of the project's results.

Strengths	Weaknesses
<ul style="list-style-type: none"> • Strong technical knowledge of consortium's partners in the proposed technologies with clear connection to industry and ESS suppliers • Development of modelling and control approaches (simulations, control HiL, power HiL) that facilitates the study of several use cases and customised solutions • Demonstration of the V-ACCESS technologies across the supply chain (ESS suppliers, shipbuilders, system integrators) 	<ul style="list-style-type: none"> • Complexity of the new system due to additional ESS and integration on vessels subject to strict constraints and safety requirements. <i>This will be mitigated by the optimised battery design and longer lifetime that reduce the TCO of the storage system</i> • Potential substantial investment for the upscale of the technologies for a small market. <i>This will be mitigated by the introduction of more types of vessels profitable for electrification in comparison to battery-only vessels</i>
Opportunities	Threats
<ul style="list-style-type: none"> • The proposed research originates from an urgent policy requirements of introducing more zero-emission vessels and industrial needs of building such vessels with reasonable investment and final cost for the end-users • Advances in the sectors of power systems, power electronics, vessel's integration provide opportunities for application of supercapacitors and SMESs leading to the acceleration of these technologies to meet the needs of end-users. 	<ul style="list-style-type: none"> • New emerging technologies, competitive to supercapacitors and SMES. <i>V-ACCESS will use the existing supply chain (with the necessary modifications/additions), keeping investments costs low and exploiting internal knowhow</i> • Competition from Asian countries. <i>Products made in EU will ensure ethical and environmental responsibility, high quality. Specific advanced skills not available overseas.</i> • Changes in regulations towards emissions for waterborne transport. <i>Disseminate the project widely to the general public and raise awareness of the importance of reducing pollution of seas.</i>



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4. Objectives

4.1. Main objectives

The main objectives of the dissemination strategy of V-ACCESS are:

- Develop a project brand identity in order to allow an easy identification of the project, obtained with a logo including the key elements of the research (vessels and energy storage) and a clear differentiation from other ZEWT projects (M6);
- Communicate the main impacts of V-ACCESS to specialised and non-specialised target audiences (M1-M36);
- Communicate the competitive advantages of the project to selected target groups (M1-M36);
- Disseminate and ensure public access to the non-confidential project's results (M1-M36);
- Facilitate the exploitation of the project's results (M1-M36);
- Provide up-to-date information about the project (M1-M36);
- Translate the scientific results into messages for public outreach, accessible also to the non-technical audience and the general public to ensure the wider dissemination of the results (M1-M36);
- Raise awareness of relevant stakeholders from the wider energy storage sector and the marine sector of the proposed technologies and results of the demonstrator (M1-M36).

4.2. Dissemination phases

The dissemination strategy of V-ACCESS consists of four main phases:

1. The generation of high value data and information about technological developments to be used in high-quality communication tools aimed to not only inform target groups but also generate interest for continuing the research in follow-on projects. The development of technologies will be monitored as it passes through the different TRL (3 to 5) of the innovation value chain.
2. Use the developed tools to communicate with all relevant target groups and stakeholders in different stages of technology development and align communication activities and tools based on the particular role of the stakeholder group for the further development of the solutions proposed.
3. Engage with selected target groups to directly support further innovation projects aimed at raising the technology readiness level. These intensive interactions will help steering the project towards the applications that will have the highest benefits from the adoption of the proposed technologies.
4. Promote partnerships also beyond the end of the project in order to maximise opportunities for the exploitation of the results.



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5. Target audience

The V-ACCESS consortium has carefully identified the target audience in order to maximise the impact of the project's results and ensure success of the communication and dissemination strategies.

V-ACCESS will explore the specific needs of different audiences and then select the preferred content format and the channels to reach them with suitable contents. The expected communication channels are scientific articles, posts on social media, short videos, lecture presentations, and posters. The specific communication channel will be selected for each dissemination opportunity and monitored afterwards to verify its effectiveness.

V-ACCESS will address the following selected target audiences:

- The scientific community working on marine electrification, energy storage and power systems;
- Ship owners and marine transports operators;
- Associations representing the interest of technology providers (such as energy storage providers, power electronics, control systems developers);
- Relevant associations representing the interest of;
- Local, regional and national governments;
- EU and ZEWT;
- R&D institutes and Universities;
- General public.

5.1. Marine-sector stakeholders

The marine-sector stakeholders identified for this project are:

- shipbuilders
- suppliers of power equipment;
- technology providers;
- systems integrators;
- shipowners and transport operators.

An advisory board will be organised from the contacts of the partners to represent the main stakeholders of the project. This task will be also aimed at consolidating the IP developed during the project, which will be periodically evaluated and discussed at the technical workshops with all the project partners and stakeholders.

5.2. Scientific community

The scientific community will be the primary target of this project and a number of engagement routes have been identified to maximise the opportunities for further research collaborations funded by either external calls and/or industry. The academic impact to the scientific community will be achieved by the publication of scientific papers on high-profile technical journals. Further opportunities for dissemination will be provided by the presentation of the project's results at high-profile international conferences and other innovation events focussing on energy storage, decarbonisation of transport, and marine research.



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5.3. General public

Although this project tackles fundamental research, every effort will be done to attract the general public through a number of channels to maximise their engagement, as detailed in the following sections.

Several publications in newspapers have been done, following few examples:



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Verità&Affari

QUOTIDIANO INDIPENDENTE - Fondato e diretto da MAURIZIO BELPIETRO

Apertura, Trasporti

Lun 05 giugno 2023

Navi elettriche, l'Italia capofila dell'alleanza per le super batterie

Ci sono Fincantieri, Università di Trieste, di Genova e Politecnico di Milano nel progetto V-Access finanziato dall'Unione europea



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Malacalza, Fincantieri, Rina e altri 11 partner europei fra industrie e università per il trasporto marittimo a emissioni zero

26 maggio 2023 - Teodoro Chiarelli



I superconduttori, utilizzati per la fusione nucleare e la ricerca al Cern di Ginevra, salgono a bordo delle navi. Potranno essere impiegati in un futuro non molto lontano per l'accumulo di energia a supporto delle batterie elettriche

Genova – I superconduttori salgono a bordo delle navi. La tecnologia utilizzata per la fusione nucleare e la ricerca al Cern di Ginevra potrà essere impiegata in un futuro non molto lontano per l'accumulo di energia a supporto delle batterie elettriche delle unità marittime. **Si chiama V-Access ("Vessel Advanced Clustered and Coordinated Energy Storage Systems") ed è un progetto finanziato anche dall'Unione Europea con 5 milioni di euro.** L'iniziativa combina gli sforzi di 14 partner internazionali che mirano a riunire le competenze su supercondensatori, sistemi di accumulo di energia magnetica superconduttivi (Smes), progettazione e controllo di sistemi di alimentazione di bordo, elettronica di potenza, analisi del ciclo di vita, e la classificazione delle navi per aumentare il livello di prontezza tecnologica (Trl) dei sistemi di stoccaggio ibridi, ovvero la combinazione di una batteria con supercondensatori, Smes o entrambi.

Gli ambiziosi traguardi di questo progetto vedono collaborare mondo della

La newsletter di ShipMag

[Mi iscrivo](#)

informazione pubblicitaria

GRIMALDI GROUP



La PRIMA COMPAGNIA Ro-Ro GREEN nel MEDITERRANEO



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6. Dissemination plan/strategy

ASG is the dissemination leader of the project and it will be responsible of the implementation of the communication and dissemination strategy. All other partners have to contribute to this activity by:

- identifying and contacting all potential stakeholders to promote engagement on V-ACCESS social media and to increase the awareness about V-ACCESS;
- contributing to content ideas with useful and engaging material (technical content, project's newsletter, etc.);
- letting UniTS know every time that they are attending an event, publishing a paper, etc., so that UniTS can share it on web pages and social media.

6.1. Timeline of dissemination activities

This table indicates the planned communication and dissemination activities for the first 12 months of the project and will be updated on a yearly basis.

ID	Partner	Activity	Date(s)	Place	Link
1	UOB	Technical paper for the Int. Conf. on Electr. Systems for Aircraft, Railway, Ship Propulsion and Road Vehicles (ESARS)	28-31 Mar 2023	Venice, Italy	www.esars.eu
2	All partners	Public workshop at the kick-off meeting of the V-ACCESS project	30 Mar 2023	Venice, Italy	www.esars.eu
3	UOB	Presentation of V-ACCESS at ECMAR Technology day & Brokerage event 2023	10 May 23	Brussels, Belgium	www.ecmar.eu
4	UOB	Technical paper for the International conference on Clean Electrical Power	27-29 Jun 2023	Palermo, Italy	www.iccep.net
5	UOB	Organization of special session on "Electrification for transport vehicles and components" within the International conference on Clean Electrical Power	27-29 Jun 2023	Palermo, Italy	www.iccep.net
6	ASG	Technical paper for the 16 th Eur. Conf. on Applied Superconductivity	3-7 Sep 2023	Bologna, Italy	www.eucas2023.esas.org
7	SKT	Provide awareness of V-ACCESS project at Nor-Shipping 2023	6-9 Jun 2023	Oslo, Norway	Exhibition — Nor-Shipping 2023
8	SKT	Provide awareness of V-ACCESS project at Electric & Hybrid Marine Expo Europe 2023	20-22 Jun 2023	Amsterdam, Netherlands	Electric & Hybrid Marine Expo Europe 2023 Home (electricandhybridmarineworldexpo.com)
9	SKT	Organization of special session on "Electrification for transport vehicles and components" within the International conference on Clean Electrical Power	27-29 Jun 2023	Palermo, Italy	www.iccep.net
10	ASG	Provide awareness of V-ACCESS project at SEAFUTURE 2023	5-8 Jun 2023	La Spezia, Italy	SEAFUTURE – 5-8 June / La Spezia Naval Base
11	ASG	Technical paper for the Magnet Technology MT28	10-15 Sep 2023	Aix En Provence, France	www.mt28.aoscongres.com

6.2. Evaluation of dissemination activities



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Effective dissemination of results will not only contribute to greater accountability for the project, but also enables stakeholders to learn more about our work and our contributions to broader knowledge generation on energy storage for vessels and the decarbonisation of marine transport. The evaluation of dissemination activities begins when the activities themselves are planned and continues through all stages of the process of the creation of a knowledge product: initiation/preparation, management and follow-up and use.

The key steps for the evaluation of the progress of the proposed dissemination activities are described in the following table.

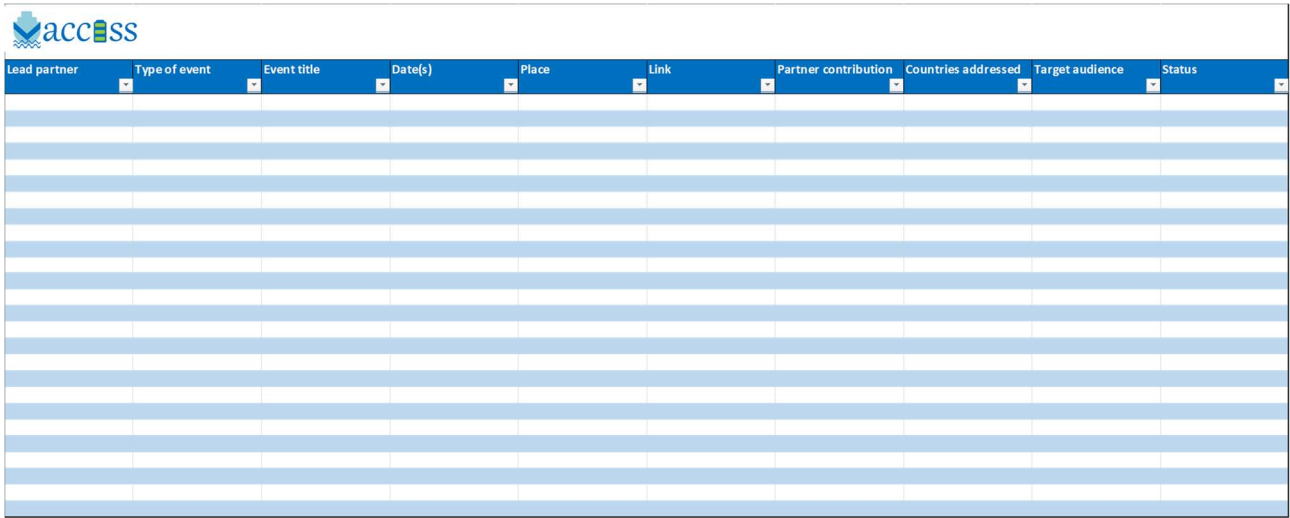
Initiation and preparation	
Budgeting	Factor in the cost to participate to workshops, conferences, etc..
Stakeholder analysis	Identify the key stakeholders to engage at the event.
Terms of reference	Consider the expectations and needs of stakeholders, especially language, format of the report (written, video, etc.), other products to be developed (PPT, pamphlet, etc.), involvement in stakeholder/dissemination workshops.
Management	
Data collection	Collect the main data for the creation of the knowledge product and generate the results.
Report writing	Organise the results in a legible way and appropriate for the selected target audience.
Follow-up and use	
Management response	The team leader of each partner will evaluate the knowledge product within 4 weeks of the finalisation of the report. During this time, it will be identified the event where the knowledge product will be disseminated.
Finalisation and implementation	The dissemination strategy should be coordinated and agreed between the partners and then implemented. This includes the attendance to the selected events or the organisation of the dissemination workshops, the collection of information of new stakeholders, the generation of new ideas with other academic institutions and industry.

6.3. Log-file of dissemination activities

Communication and dissemination activities will be undertaken in a structured way and, to achieve this, UOB will use a tool for the collection of the dissemination activities of each partner and for any planned and future communication and dissemination activities. The log-file for the dissemination activities is shown in Fig. 1. The population of this file has started at month 1 and then updated every 6 months by UOB.



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Lead partner	Type of event	Event title	Date(s)	Place	Link	Partner contribution	Countries addressed	Target audience	Status

Fig. 1. V-ACCESS communication and dissemination tracking log-file.

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7. External communication

7.1. Project Identity

In order to build a solid and long-lasting visual identity that can be easily recognised by potential stakeholders, a project brand identity has been developed.

The unique value of V-ACCESS is the use of short-term energy storage to optimise the design of the battery of more electric vessels and make them more attractive than the state-of-the-art propulsion systems based on fossil fuels. The benefits for the stakeholders have been elaborated in the table below considering the unique aspects of V-ACCESS.

Benefits	Stakeholders	Unique aspects
Economical	Suppliers of energy storage equipment, technology providers, systems integrators	V-ACCESS will increase the efficiency of battery systems, reducing their peak power demand and the cost of the energy storage.
Environmental	Ship owners and transport operators	V-ACCESS promotes electrified marine transport and a better use of technologies enabling the transition to net-zero.
Social	Local and regional governments	V-ACCESS promotes the reduction of emissions from marine transport and help to achieve the EU targets on carbon neutrality.

From these considerations the following project logo has been designed as indicated in Fig. 2.

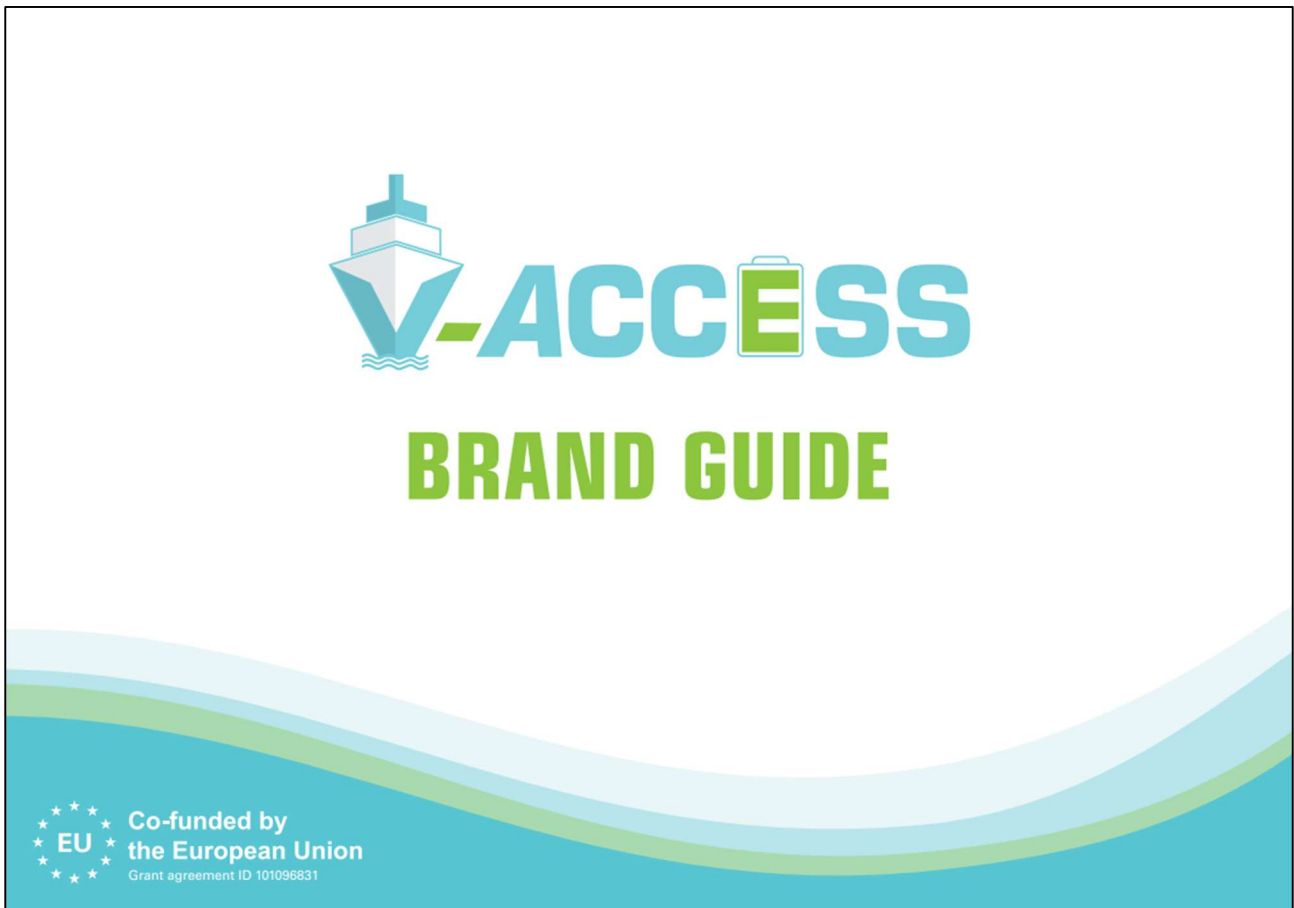


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Figure 2. Colour and black and white versions of the logo and colour palette.

A brand guide has been developed, regulating the use of logo, its colours, the font and minimum dimension allowed.



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- 01. CONCEPT**
- 02. PALETTE**
- 03. FONT**
- 04. USAGE**
- 05. BLACK/WHITE VERSION**
- 06. OTHER VERSIONS**
- 07. SAFE AREA**

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CONCEPT

The concept of the V-ACCESS logo was born from the desire to reflect the technical content of the project.

A restyling of the original logo, designed by the University of Birmingham, was carried out, trying to maintain the original setting but at the same time cleaning up the strokes and making the logo more usable in digital communication (websites and social channels), as well as in graphics and printing.



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PALETTE

The colours were chosen according to the ones used for the website and the project communication already used to date.

The colours refer to the imagination of the sea and green energy.



R 159 G 191 B 67
C 50 M 0 Y 100 K 0
web #9bf43
PANTONE P 157-8 C



R 151 G 204 B 218
C 50 M 0 Y 15 K 0
web #97ccda
PANTONE P 121-5 C



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FONT

Eurostile Lt Std Condensed

Eurostile Lt Std Bold Condensed

Eurostile Lt Std Medium

Eurostile Lt Std Demi

Eurostile Lt Std Oblique

Eurostile Lt Std Bold

Eurostile Lt Std Oblique

Eurostile Lt Std Extended

Eurostile Lt Std Bold Extended



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USAGE

YES

Whatever use is made of the V-ACCESS logo, must always be kept native proportions, both in height and in width.



NO

On printed media, the logo must be used with a minimum size of 4 cm width, while on digital media, it must be used with a minimum width size of 150px.




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BLACK/WHITE VERSION




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OTHER VERSIONS




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7.2. Promotional materials

The following templates have been prepared by the consortium for all the presentations and posters used for dissemination of the project's activities. All project partners have been invited to take advantage and to use these templates for communication and dissemination activities.



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7.3. Oral presentations and lectures

The template shown in Fig. 2 will be used for oral presentations and public lectures by project partners during dissemination events.



Figure 2. Template for oral presentations.

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7.4. Poster presentations

Similarly, the template shown in Fig. 3 will be used for the presentation of posters to conferences, workshop and dissemination events.



Figure 3. Template for poster presentations.



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7.5. Project banner and leaflets

A digital banner and leaflets will be designed with the key messages of the project and used by the project partners during dissemination events.

A first leaflet has been designed:

V-ACCESS
Vessel Advanced Clustered and Coordinated Energy Storage Systems

VESSEL ADVANCED CLUSTERED AND COORDINATED ENERGY STORAGE SYSTEMS

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MARITIME EMISSIONS IN THE EU ACCOUNTS FOR 13% OF ALL TRANSPORT MODE.

A SUBSTANTIAL CO₂ SAVINGS CAN BE ACHIEVED BY INTEGRATING SOME FORMS OF ELECTRIFICATIONS WITH BATTERIES CHARGED BY SHORE POWER (POSSIBLY FROM RENEWABLE POWER SOURCES).

EFFICIENCY AND MITIGATION OF BATTERY DEGRADATION:

- ESS OPTIMIZATION
- INNOVATIVE DC POWER DISTRIBUTION

USE CASES AND SHIP DESIGN
Optimise the energy storage system(s) for specific use cases. Define the impact on ship design and compliance with regulatory standards.

POWER DISTRIBUTION SYSTEM
Develop an innovative shipboard power distribution system with increased use of higher voltage DC networks to optimise the efficiency of innovative energy storage.

EFFICIENCY AND BATTERY LIFE
Demonstrate and validate the effectiveness of short-term energy storage devices for marine usage.

ENVIRONMENTAL IMPACT AND CARBON NEUTRALITY
Establish robust safety principles to mitigate hazards. Prepare the ground for the subsequent demonstration at full-scale on a real vessel by 2027.

V-ACCESS
Vessel Advanced Clustered and Coordinated Energy Storage Systems

VESSEL ADVANCED CLUSTERED AND COORDINATED ENERGY STORAGE SYSTEMS

Funded by the European Union
Grant agreement ID: 101096831

2023 **2024** **2025** **2027** **2030**

RESULTS

- 2023: design of the new power system architecture and ship integration; validation of simulation tools with data of real vessels.
- 2024: completed integration of energy storage in a shipboard power system; demonstration campaign to assess performance characteristics.
- 2025: scale-up of the system and trial on a prototype vessel; solutions to overcome technical and non-technical barriers.
- 2027: systems engineering and definition of the product line; new zero-emission vessels ready for market.

BUSINESS

- 2023: cost-benefit analysis for the definition of the market; engagement with stakeholders for project exploitation.
- 2024: agreement for IPR between partners; analysis of the roles to market and future roles of partners (provision of licenses for manufacturing partners).
- 2025: definition of the business model; agreement on licenses on products and engineering services.
- 2027: establishment of the supply chain; promotion of V-ACCESS to early adopters and stakeholders.

INITIAL ANALYSIS AND COMPONENTS DEVELOPMENT → **INTEGRATION OF TECHNOLOGIES AND VALIDATION AT UNI TS LAB** → **FULL-SCALE DEMONSTRATOR READY FOR SEA TESTING** → **FIRST CERTIFIED VESSEL WITH V-ACCESS SYSTEM**

Superconductivity is a well-established technology solution where high magnetic field, or high current carrying capability is needed.

It already plays a fundamental role in many sectors: medical devices, HEP, Fusion energy, where it has been fully implemented, together with cryogenics.

SUPERCONDUCTIVITY CAN PLAY A ROLE ALSO IN MARINE ENVIRONMENT.

V-ACCESS IS ON THE MARKET!

VARD (Finmeccanica company) | **UNIVERSITY OF BIRMINGHAM** | **skeleton+** | **Università di Genova** | **RINA** | **UNIVERSITÀ DEGLI STUDI DI TRIESTE** | **FINCANTIERI** (The ship ahead) | **POLITECNICO MILANO 1863** | **SINTEF** | **RSE** | **ASG SUPERCONDUCTORS**



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It has been already distributed at Seafuture event, listed in the above mentioned (6.1 paragraph - Timeline of dissemination activities).

7.6. Project webpage

A project webpage has been set-up at www.v-access.eu and hosted by UniTS. The project includes the principal information about the project, the team of researchers involved, and the main aims and objectives. The webpage will be enriched when the first research results will be achieved and a link will be made available to all the public deliverables of the project.

Moreover a private online storage space has been set up to host all the documents of the project. This Area is accessible to all partners with a login system and some folders are different privileges, so that the IPR can be properly granted.

7.7. Twitter

The Twitter channel of key people of the project will be used as well to inform and engage the business stakeholders such as ship owners and marine transports operators, and relevant associations representing shipbuilders, suppliers, and system integrators. This will be done by sharing updates on the projects, details on the published work and the participation to relevant events.

7.8. LinkedIn

LinkedIn has been chosen as a project's channel by the consortium because it is a conversation-based social media. News from the project will be disseminated via the LinkedIn account of the project [\(4\) V-ACCESS: Panoramica | LinkedIn](#) to create awareness and promote online conversation around the project.

In particular, to promote engagement on LinkedIn:

- Strategic hashtags will be identified and included in the project's tweets, such as #vaccess #netzerovessels #decarbonisation #smes #maritime #waterborne #supercapacitors #electrification #shipping #mgb2 #superconductivity #energystorage #HorizonEU, #ZEWT, #EUTransportResearch and #investEUresearch;
- Trending hashtags of the day will be exploited to raise awareness about the project;
- Strategic LinkedIn accounts (such as partners, events' account, Horizon Europe accounts, journalists etc...) will be mentioned in all posts related to V-ACCESS;
- Appealing images and videos will be included in all the project's posts in order to catch users' attention.




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V-ACCESS
 24 follower
 2s • Modificato •

PRESS RELEASE

New Energy Storage technology: EU Project V-ACCESS gathers 14 industrial and university partners for zero-emission waterborne transport. [Vedi traduzione](#)


PRESS RELEASE

NEW ENERGY STORAGE TECHNOLOGY: EU PROJECT V-ACCESS GATHERS 14 INDUSTRIAL AND UNIVERSITY PARTNERS FOR ZERO-EMISSION WATERBORNE TRANSPORT.

There are more than 60.000 commercial vessels in operation worldwide which accounts for almost 3% of global CO2 emission and it is widely recognised that substantial CO2 savings can be achieved by integrating some forms of electrifications with batteries charged by shore power.

In this frame, innovative energy storage technologies can significantly improve the performance of batteries for of zero-emission waterborne transport, extending batteries lifetime, increasing the overall efficiency, so reducing (R&D and) operational costs.


The EU project V-ACCESS ("Vessel Advanced Clustered and Coordinated Energy Storage Systems") combines the efforts of 14 international partners aiming to integrate a superconductive magnetic storage systems and supercapacitors into an innovative DC shipboard power grid to control flexibly the power sharing between the different energy storage technologies.

May 29, 2023 - There are more than 60.000 commercial vessels in operation worldwide which accounts for almost 3% of global CO2 emission and it is widely recognised that substantial CO2 savings can be achieved by integrating some forms of electrifications with batteries charged by shore power (possibly from renewable power sources).

In this frame, innovative energy storage technologies can significantly improve the performance of batteries for of zero-emission waterborne transport, extending batteries lifetime, increasing the overall efficiency, so reducing (R&D and) operational costs.

The EU project V-ACCESS ("Vessel Advanced Clustered and Coordinated Energy Storage Systems") combines the efforts of 14 international partners aiming to bring together expertise on supercapacitors, superconductive magnetic energy storage systems (SMES), design and control of shipboard power systems, power electronics, lifetime cycle analysis, and ship classification to increase the technology readiness level (TRL) of hybrid storage systems - i.e. combining a battery with either supercapacitors, SMES, or both.

The goal is to integrate a superconductive magnetic storage system and supercapacitors into an innovative DC shipboard microgrid to control flexibly the power sharing between the different energy storage technologies.





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V-ACCESS
 24 follower
 2s • Modificato •

Working together to pave the way towards net-zero vessels.
 Discover our 14 international partners 🔍

...vedi altro

Vedi traduzione

RINA
 269,546 follower
 2s •

We are among the 14 international partners of the new EU project V-ACCESS which aims to pave the way towards net-zero vessels focusing on innovative energy storage technology and onboard energy management 🚢 ...vedi altro

Vedi traduzione

MARITIME EMISSIONS IN THE EU ACCOUNTS FOR 13% OF ALL TRANSPORT MODE.

A SUBSTANTIAL CO2 SAVINGS CAN BE ACHIEVED BY INTEGRATING SOME FORMS OF ELECTRIFICATION WITH BATTERIES CHARGED BY SHORE POWER (POSSIBLY FROM RENEWABLE POWER SOURCES).

EFFICIENCY AND MITIGATION OF BATTERY DEGRADATION:

- ESS OPTIMIZATION
- INNOVATIVE DC POWER DISTRIBUTION

USE CASES AND SHIP DESIGN
Optimize the energy storage system(s) for specific use cases. Define the impact on ship design and compliance with regulatory standards.

POWER DISTRIBUTION SYSTEM
Develop an innovative shipboard power distribution system with increased use of higher voltage DC networks to optimize the efficiency of innovative energy storage.

EFFICIENCY AND BATTERY LIFE
Demonstrate and validate the effectiveness of short-term energy storage devices for marine usage.

ENVIRONMENTAL IMPACT AND CARBON NEUTRALITY
Establish robust safety principles to mitigate hazards. Prepare the ground for the subsequent demonstration at full-scale on a real vessel by 2027.


Consiglia Commenta Diffondi il post

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V-ACCESS
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In the media:
 a very interesting article on v-access, the international project to accelerate the development of innovative energy storage systems for zero emission ves ...vedi altro

[Vedi traduzione](#)



Navi elettriche, l'Italia capofila dell'alleanza per le super batterie
 veritaeaffari.it • 3 min di lettura

2 1 diffusione post

Consiglia Commenta Diffondi il post



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V-ACCESS
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Working together for net-zero shipping.
 A V-Access delegation visiting the ASG Superconductors booth at [Seafuture 2023](#) edition.
 Various partners involved in the V-Access project are exhibiting in La Spezia: [ASG Superconductors S.p.A.](#) , [RINA](#) and [FINCANTIERI S.p.A.](#).
 It's really exciting innovating together in energy and shipping fields.

•
 •
 •

[#vaccess](#) [#netzerovessels](#) [#decarbonisation](#) [#smes](#) [#maritime](#) [#waterborne](#) [#supercapacitors](#) [#electrification](#) [#shipping](#) [#mgb2](#) [#superconductors](#) [#energystorage](#) [#HorizonEU](#) [#ZEW](#) [#EUTransportResearch](#) [#investEUresearch](#)

[Vedi traduzione](#)



Alessio Verardo e 14 altre persone • 4 diffusioni post

[Consiglia](#) [Commenta](#) [Diffondi il post](#)



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Antonio Chiarelli • 1°
 PhD | Research & Innovation Electric Strategy Manager at Fincantieri S.p.A. M...
 2m •

Happy to announce the start of the EU project V-ACCESS (Vessel Advanced Clustered and Coordinated Energy Storage Systems) which I will coordinate for Fincantieri. The project aims to study the use of different storage syste ...vedi altro

[Vedi traduzione](#)



Vessel Advanced Clustered and Coordinated Energy Storage Systems

Fact Sheet

Project Information	
V-ACCESS Grant agreement ID: 101096831 DOI 10.3030/101096831	Funded under Climate, Energy and Mobility Total cost € 4 237 872,50 EU contribution € 4 237 872,50
Start date 1 February 2023	End date 31 January 2026
Coordinated by UNIVERSITA DEGLI STUDI DI TRIESTE  Italy	

Objective

New energy storage technologies can significantly improve the performance of batteries for zero-emission waterborne transport and reduce R&D and operational costs. V-ACCESS brings together expertise on supercapacitors, superconductive magnetic energy storage systems (SMES), design and control of shipboard power systems, power electronics, lifetime cycle analysis, and ship classification to increase the technology readiness level (TRL) of hybrid storage systems, i.e. combining a battery with either supercapacitors, SMES, or both. They will be integrated into an innovative DC shipboard microgrid to control flexibly the power sharing between the different energy storage technologies. The proposed technologies are analysed from the components levels, already tested and validated at TRL3, and modelled into the vessel's power system, also using control hardware-in-the-loop simulators. Then, the individual components are assembled together and

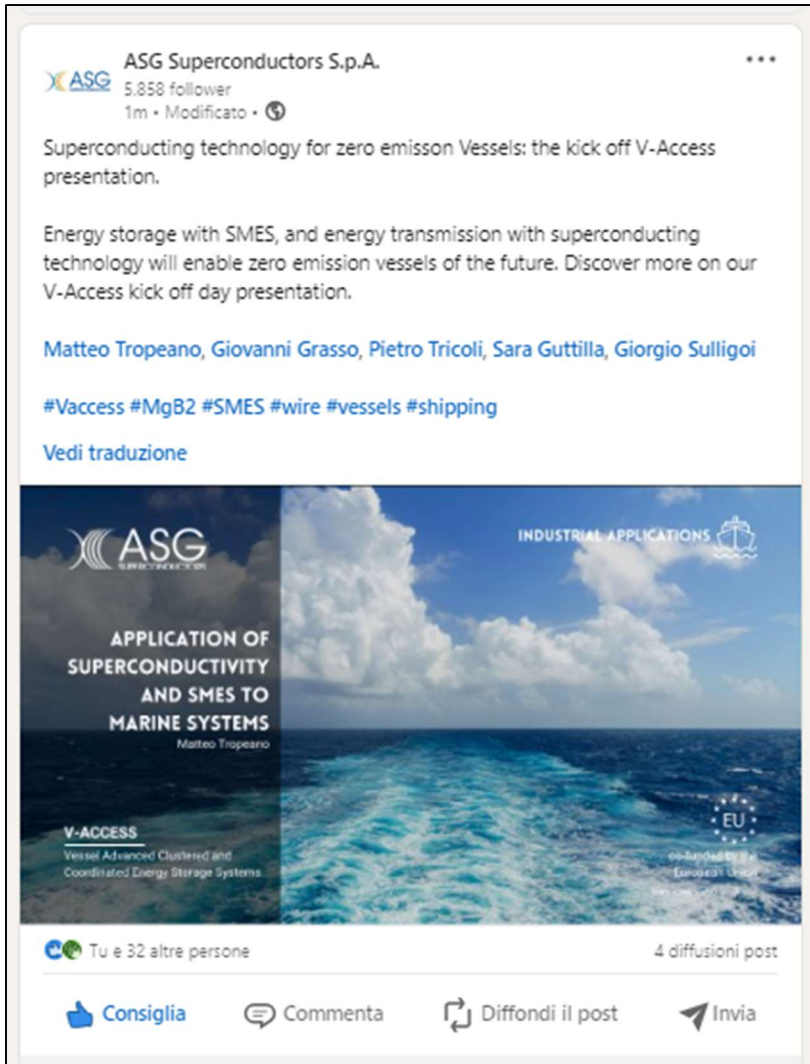
1 of 10

 Fabio D'Agostino e 7 altre persone

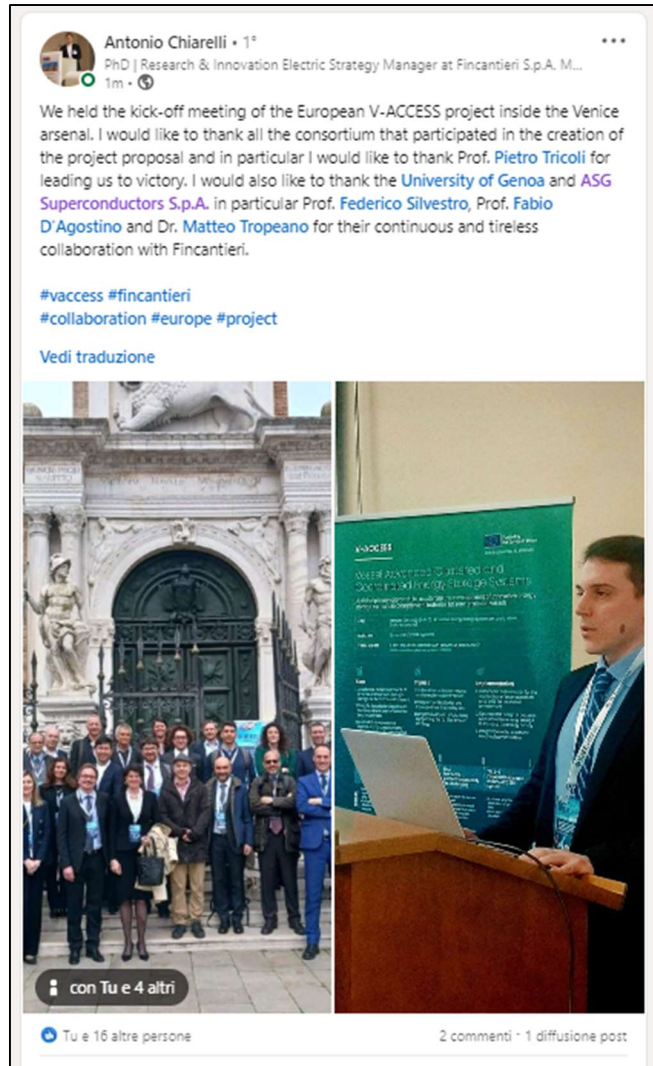
 Consiglia
  Commenta
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ASG Superconductors S.p.A. 5,858 follower 1m • Modificato •


In the Loop # 39 is online.

Discover the last issue of ASG newsletter: V-Access, paving the way for zero emission vessels with superconducting technology, EAU23 discover the unique capabilities of MROpenEVO for urologic applications, behind the W7-X fusion energy plasma, Hi-Lumi is paving the way of net zero economy with innovative electrical transfer line.


Find out more on our monthly newsletter! Click here to see the digital full version (<https://lnkd.in/eaVXH3Gf>) and to subscribe.

#intheloop #asgsuperconductors #newsletter #magnet #fusion #HEP #Mgb2 #MROpenEVO #mri

Vedi traduzione



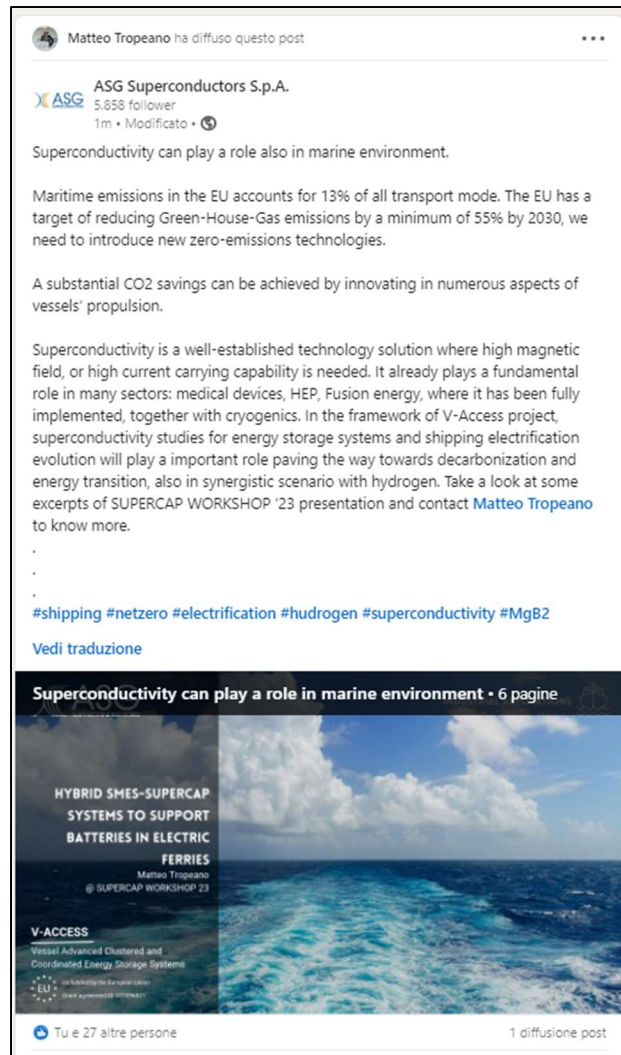
IN THE LOOP
ASG NEWSLETTER N.39 | March 2023



In the Loop # 39
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The next activities are focussed on growing the number of followers using the network of contacts of the beneficiaries and disseminating the project at conferences and events on the theme of decarbonisation of marine transport. To encourage potential followers, new content will be created on a regular basis on the new results of the project. This activity could generate more views and reactions, creating and strengthening the link to the project webpage page. Publications on social media will be similar to the examples posted above, with infographics underpinning specific complex concepts that can be further explored using the deliverables published on the website.

7.9. Project newsletter

A periodic project newsletter will be delivered every 6 months and the page to subscribe will be clearly highlighted in the webpage. The aim of the newsletter is to retain a high level of engagement of stakeholders and create a community around V-ACCESS. The banner of the newsletter will be placed in the homepage of the webpage in order to make it clearly visible by the visitors. The newsletter tool is also strategic for greater community involvement, in which to insert external links



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that refer to specific pages of the project's website and social networks, to encourage greater traffic on all pages linked to V-ACCESS.

7.10. Events, presentations, and publications

The project will be disseminated to several international events to raise awareness of the results to potential stakeholders and to engage with the scientific community. Some of the events relevant to this project are listed in the table below. The specific events will be decided when the programme is announced and will be selected on the basis of the part of the project that has to be disseminated and the opportunities for networking with other researchers and project's stakeholders.

The results of the project will be also disseminated through publications to journals and magazines. These publications will give strong visibility of the academic and industrial impact of the project and will provide opportunities for further collaborations with other research groups. The initial target journals that are relevant for the topic of the project have also been listed in the table below.

		Audience					Dissem., comm. and exploitation levels		
		EU	Waterborne transport stakeholders	Scientific community	Non-maritime stakeholders	General public	High level awareness	Detailed scientific knowledge	Case studies to demonstrate impact
Project Specific Events	Initial engagement with stakeholders	X	X	X	X		X	X	
	Mid-Term Workshop	X	X	X	X		X	X	X
	Final Event	X	X	X	X		X	X	X
	IEEE ECCE	X	X	X	X		X	X	X
	IEEE Electric Ship Technologies Symposium	X	X	X	X		X	X	X
	World Maritime Technology Conference	X	X	X	X	X	X	X	X
	Maritime Industry	X	X	X			X		X
Navexpo international	X	X	X			X		X	
Publications	IEEE Trans. Transportation Electrification (Scientific)	X	X	X	X			X	X
	IEEE Trans. Power Electronics (Scientific)	X	X	X	X			X	X
	Journal of Ship Production and Design (Scientific)	X	X	X	X			X	X
	Journal for Maritime Research (Scientific)	X	X	X	X			X	X
	Clean technologies (Scientific)	X	X	X	X			X	X
	Maritime Reporter and Engineering News (Magazine)		X		X	X	X		X
	Marine Log (Magazine)		X		X	X	X		X
Marine Trader (Trading)	X	X				X		X	
Other	Website	X	X	X	X	X	X	X	X
	Social Media	X	X	X	X	X	X	X	X
	Interviews	X	X	X	X	X	X	X	X



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8. IPR protection strategy

This section discusses the strategy developed by the consortium to deal with the IPR developed during the project and the planned steps to protect the exploitable results of the project while retaining effective discussions with the project's stakeholders.

8.1. IPR identification

This activity will start as soon as a new potential IPR is generated. This will be done by searching various database and publications for similar intellectual property. The partner of the consortium who has generated the new IP will search for patents, trademark and copyright information in the public records to check the presence of similar invention and the level of similarities. Academics and researchers of the consortium of will do the same for academic publications.

If no other similar IP is found, further conditions will be checked to decide if further steps towards protections are needed:

- the invention has non-obvious differences from similar inventions.
- the invention was never patented or its protection has expired, guaranteeing then legal freedom to operate.

If all these conditions are satisfied, the consortium will device on what action to take to protect the newly generated IP.

8.2. Options for IPR projections

This activity is focussed on understanding the different types of IPs and the advantages of each methods of protection. For example, inventions will be protected by patents, whereas brand names and logos will be protected by registered trade mark and the look of an innovative product will be protected by design registration. It will also be considered if secrecy is a better option to safeguard the generated IP rather than patenting. This will depend on the need to find a balance between the need of exploiting the results with stakeholders and the need to disseminate the research results, for example by publishing research papers.

8.3. Confidentiality

The consortium has already an agreement in place to keep all the original ideas developed during the project confidential until a decision on the opportunity to protect the new IP has been made. Separate NDAs will be used to talk to interested third parties about the ideas of the project and possible further development, while preventing them from disclosing these ideas without permission. UniTS will help preparing an NDA for all the situations where it is needed and it will cover the following three key issues:

- what confidential information is being disclosed;
- the rights of each collaborator to use the disclosed information;
- the timing of confidentiality (both the disclosure and confidentiality period).

8.4. Development of know-how

The academic partners of the project are a leverage point to industrial collaboration, as the researchers involved in the project nurture the leading edge thinking that results in the development



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of future products. Although the academic researchers are aware of the restrictions imposed on the publication of the results to protect any valuable IP generated by the research, it will be ensured that also the researchers of the team are trained appropriately and act correctly when talking with stakeholders, for example by ensuring that they sign a NDA before disclosing sensitive details. Particular attention will be devoted to the management of the intellectual assets developed by the researchers and the identification of suitable ways to protect valuable IP without compromising the quality of their publications. Publications that may have impact on the exploitation of the results will be circulated to the interested industrial partners to allow sufficient time to adequately protect the valuable IP.

8.5. Pathways for exploitation of the research results

The main route for the exploitation of the research is the sustained engagement with the project's stakeholders and potential end-users to ensure that the research is framed in ways meaningful to their needs and demands. The findings of the project will be disseminated through the workshops to ensure effective research uptake through a concerted focus on understanding not only the technology, tools, knowledge and information required by stakeholders, but also the format and media that will best enable them to utilise the outputs of the project.

The project has also a specific aim of defining the pathway for the increase of the technology readiness level and prepare for a demonstrator on a vessel for a follow-up project. The skills developed by the researchers during V-ACCESS will be highly sought within industry and academia and essential for the subsequent development phase. The research training will be supported by networking activities with industrial partners and/or short visits between consortium's partners to improve their understanding of the subject area and be trained to be the future leaders of the next generation of marine electrification systems.



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9. IP register

The IP register has been developed as a simple table to record all the IP generated during the project. UOB will collect input from partners to include in the register starting from month 12 and then updated every 6 months. The register structure, shown in Fig. 4, includes details of the background IP as well as specific new IP generated, percentage of ownership between the consortium members, the name of potential stakeholders, the description of how these results could be exploited (for example via licensing), the current status of protection and the next action towards the exploitation.

access									
No.	Name of Intellectual Property (IP)	Brief Description	Ownership (%)	Background IP	Ownership of Background IP	Potential Stakeholders	Potential for Exploitation	Status of Protection	Next Actions
Background IP - Existing IP at the beginning of project									
1									
2									
3									
4									
5									
6									
7									
New IP generated during the project									
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									

Figure 4. V-ACCESS IP register.



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10. Conclusions

The deliverable has identified the main objectives of the communication and dissemination strategy of V-ACCESS, the definition of key-messages, the identification of target groups and audiences, content formats and planned activities.

All partners will be actively involved in the communication and dissemination of V-ACCESS in order to assure the proper exploitation of the project's results and maximize the impact of the innovative technologies that will be produced in the framework of this project.

V-ACCESS project's consortium will adopt a content marketing approach and develop an editorial plan that will be planned in advance, regularly up-to-dated by all project's partners with new content ideas and customised according to target audiences. In fact, planning and customisation are key-factors for a successful communication.

V-ACCESS editorial plan will describe the type of content, the target audience, the channel and the date of the publication of each piece of news for the website, LinkedIn posts and tweets.

Finally, the effectiveness of the project's communication activities will be monitored any six months in order to track the proper key performance indicators.

This deliverable has also presented the main strategy of the consortium to manage the IP and the structure of the IP register used to record the innovations generated during V-ACCESS and the pathways for the further exploitation of the research results.



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