



D6.3: Dissemination, Web Portal and communication material (v1)

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D6.3: Dissemination, Web Portal and communication material

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Dissemination Level	
PU	Restricted to a group specified by the consortium (including the Commission)

Version History

Version	Date	Author	Organization	Description
1	01/08/2017	David Griffiths	BMT Group	Draft 1
2	26/10/2017	David Griffiths	BMT Group	Draft 2

Table 1: Version history



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1. Executive summary

1.1 Purpose and contents of this report

1.1.1 Dissemination and Communication strategy

This document presents the Dissemination and Communication strategy for the SEDNA project. This Dissemination strategy sets out the plan for targeting the different relevant stakeholders in an effective way, generally describing the intended applied and scientific dissemination activities.

This strategy needs to be sufficiently flexible and dynamic to reflect the reality of how the SEDNA project develops and its timescales, changes in market and stakeholder landscape, as well as that of the Dissemination and Communication channels that exist currently, and will do, throughout the life of the project.

In this respect, whilst this report sets out the strategy for the SEDNA Dissemination and Communication, there will be yearly updates of the dissemination plan, with a specification of the intended dissemination activities in the next year. As such, it will be a living, iterative document reviewed and updated regularly against the key phases of the project.

1.1.2 Dissemination and Communication activities

In addition, this document reports on those dissemination activities that have already commenced, including launching the project website, drafting an initial press release and developing a visual identity and templates featuring this.

It also sets out the plans for further dissemination activities in the next period.



2. Introduction

2.1 Purpose of dissemination

The principal purpose of the dissemination activities in SEDNA is to demonstrate how the project can contribute to the safe, efficient and environmentally sensitive maritime activity in the Arctic, to enable European maritime interests to confidently fully embrace the Arctic's significant and growing shipping opportunities, while safeguarding its natural environment.

In addition, by addressing the broader scientific community and the public, the project will contribute to the achievement of an important horizontal effort in H2020: bridging the gap between science, technology and all sectors of society. Communication about European research projects is one of the principal ways of demonstrating how research and innovation can contribute to a European 'Innovation Union' and of helping to justify public spending, by providing tangible proof that such collaborative research adds value.

Dissemination is a parallel activity to Exploitation, in which the deployment by the project partners themselves of the technologies and techniques developed within SEDNA is one way in which the public can benefit from the project outputs. Insofar as exploitation in this way represents a demonstration of the deployment of these technologies and techniques and their consequent benefits, it can assist the dissemination activities.

2.2 Methods of dissemination

The primary method of dissemination is to raise awareness of the achievements and effects (benefits, challenges and issues) that the SEDNA project will bring to the shipping and maritime technologies industry and to society more generally. In addition, the dissemination of knowledge will mobilise the participation of industry and the research community in a dialogue leading to increased levels of engagement and knowledge about the issues and challenges being addressed by SEDNA.

In addition, the parallel Exploitation activity serves as a practical demonstration of the benefits of the project.



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2.3 Channels of dissemination

SEDNA will employ a comprehensive set of modern communication tools for online facilitation, and the most efficient channels for communication, dissemination and exploitation, in order to:-

- **Reach different target groups;**
- **Reinforce and support the messages delivered through each individual channel;**
- **Maximise the number of people reached**

The communication tools and channels to be deployed will include:-

Website

An official website (www.safearcticshipping.eu), which has been delivered in the first month of the project, providing a high-level description of the project and its objectives, aimed at the general public and users.

The website contains more detailed outputs, such as links to scientific publications, public reports, general information, and news and dissemination material. Additional material, such as videos of users outlining the challenge and why SEDNA services are required, may also be included.

Activity on the website is being tracked, to indicate the sources by which users visit the site, which pages are viewed and how well the site retains users, as well as other metrics.

Social media channels

A social media campaign will utilise the modern forms of communicating science to wide audiences across the globe. LinkedIn and Twitter accounts have been set up, and links to these have been added to the official project website, to drive traffic to the site and so increase the visibility and awareness of the project.

Visual identity

A strong and distinctive visual identity has been created for SEDNA, and will be incorporated in all project material, such as the SEDNA logo, letterhead, report template, meeting template, and power point templates to provide consistent branding for the project.



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Dissemination materials

Dissemination materials will be created to report on project activities and developments. Material will be mainly online (although some printed material will be made available at key events) and will include brochures, leaflets, factsheets, etc.

Press releases

In addition to engagement with various users, SEDNA proposes targeted media outreach action involving national newspapers, media outlets specialising in weather and climate (e.g. climatebrief.org), and EU policy and specialist media. Press releases will include both information material and visual materials i.e. graphs, photos etc.

Project reports

The project deliverables that are in report format and defined as public will be made openly accessible on the SEDNA website to widely share useful results and conclusions.

Papers for peer-reviewed literature

Scientific papers created within SEDNA will be published in open-access peer-reviewed literature to reach the scientific community and advertised through the website.

Some selected scientific publications include: Journal of Cold Region Science and Technology, Journal of Offshore Mechanics and Arctic Engineering, International Journal on Marine Navigation and Safety of Sea Transportation, Journal of Navigation, Ocean Engineering, Journal of Engineering for the Marine Environment and Journal of Marine Science and Technology.

Promotion and dissemination of results in international fora of relevance

To strengthen the role of the project as a base of cutting edge research, the project will leverage the consortium's industrial and scientific networks, to present the SEDNA innovations to conferences and other external event opportunities. Topics and relevant conferences that have already been identified in Europe and internationally are:

- **International Conferences on Augmented and Virtual Reality by the European Association for Virtual Reality and Augmented Reality (EuroVR),**
- **International Conference on Ships and Offshore Structures (ICSOS),**
- **International Conference on Ocean, Offshore & Arctic Engineering (OMAЕ),**
- **International Navigation Conference,**



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- International Conference on Marine Navigation and Safety of Sea Transportation, and
- RINA International Conference of Marine Design.

A table in section 4.1 below sets out some of these that are taking place over the next few months.

Official EU Communication Channels

Important milestones in the project will be communicated to the relevant EU dissemination portals, such as CORDIS, Horizon magazine and SciencelBusiness News, and also the Transport Research & Innovation Portal (TRIP).



3. Dissemination progress report

3.1 – Overview of dissemination progress to date

3.1.1 Project website

The SEDNA project website (<https://www.sedna-project.eu/> and www.safearcticshipping.eu), was delivered in the second month of the project.

It features a Home page, introducing the project aims and vision, with further details of these available on the About page, which links to sub-pages about the five Innovations.

There are also pages to present the project consortium, and for project News and Events.

There is a further section for Resources, where reports and other material produced during the project will be listed and made available for download. This section also contains links to other relevant websites and material.

A final Contact page will allow visitors to address questions to the project consortium.

A screen-shot of the Home page is shown below.

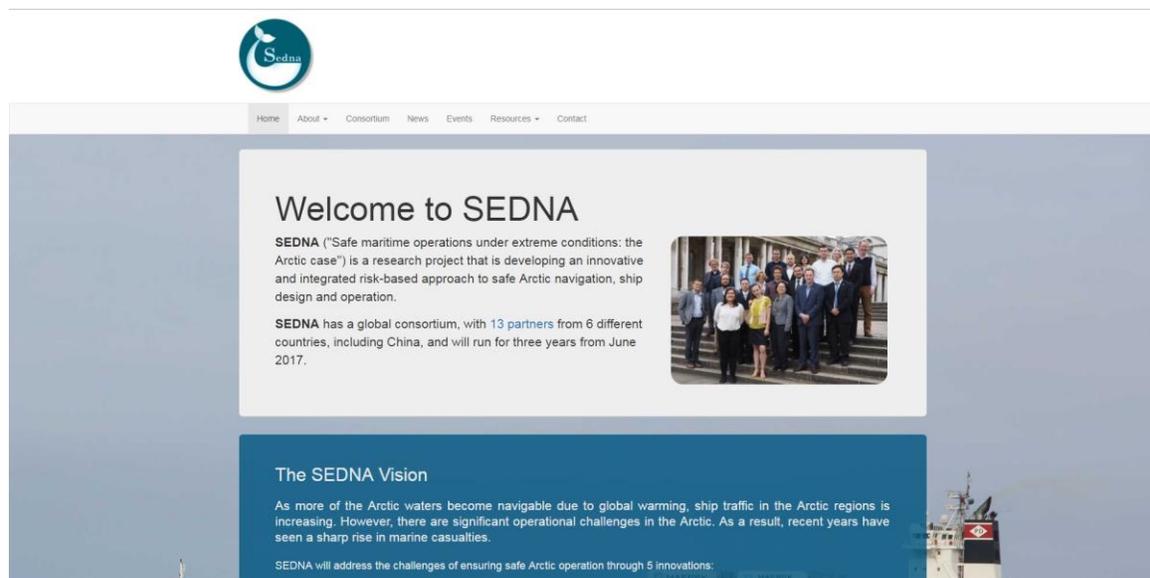


Figure 1: Screenshot of the SEDNA homepage



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A screen-shot of the 'About' page, presenting the project background and links to the five Innovations, is shown below.



Figure 2: Screenshot of the SEDNA project description page

A chart showing the pages most visited on the web-site over the latest three-month period is shown below.

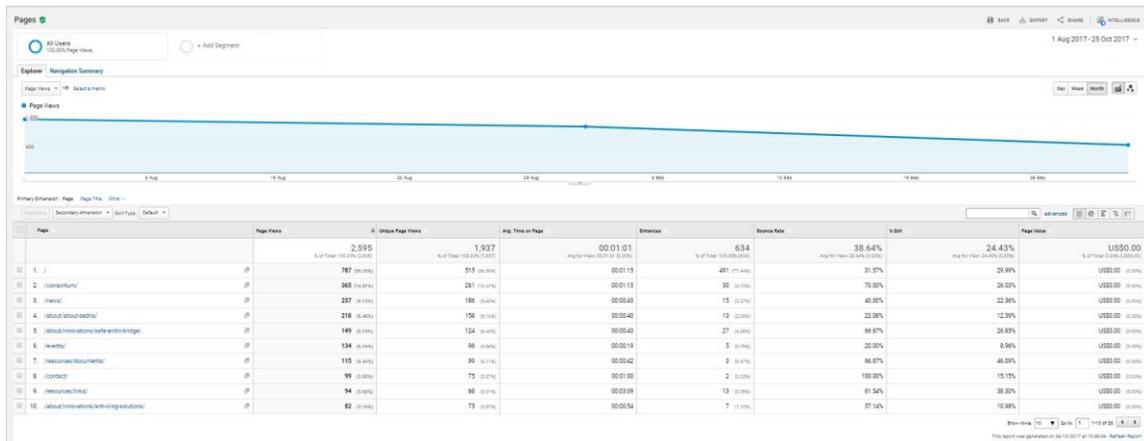


Figure 3: Some initial web traffic statistics for the SEDNA website



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3.1.2 Social media channels

Accounts have been created for SEDNA on Twitter (https://twitter.com/SEDNA_Arctic) and LinkedIn (<https://www.linkedin.com/groups/8616133/profile>), and a link to both of these has been added to the SEDNA project website.



Figure 4: SEDNA Twitter account

3.1.3 Visual identity

A strong and distinctive visual identity has been created for SEDNA, and will be incorporated in all project material, such as the SEDNA logo, letterhead, report template, meeting template, and power point templates to provide consistent branding for the project.





Figure 5: SEDNA Logo

3.1.4 Press releases

An initial press release to announce the commencement of SEDNA has been prepared and approved by all partners. It has been widely distributed to relevant press outlets.

To measure the success of this activity, i.e. how many publications pick up the release, subsequent press coverage is being monitored. Some examples of the resultant coverage following the initial press release are listed in the table below.

Article title	Source	Date	Weblink
EU Project Aims to Improve Arctic Shipping Safety	MarineLink	August 14, 2017	https://www.marinelink.com/news/shipping-project-improve428331
EU €6.5M study will improve Arctic navigation safety	Marine Electronics & Communications	August 14, 2017	http://www.marinemec.com/news/view.eu-65m-study-will-improve-arctic-navigation-safety_48794.htm
New EU research project targets Arctic shipping safety	Bunkerspot		https://www.bunkerspot.com/global/44549-global-new-eu-research-project-targets-arctic-shipping-safety
New E.U. Research	Maritime	2017-08-14	https://maritime-



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Aims to Improve Arctic Safety	Executive		executive.com/article/new-eu-research-aims-to-improve-arctic-safety
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The press release is included as an appendix to this report.

3.1.5 Poster

A poster on the project has been produced in landscape format. The poster was presented at the Arctic Energy Summit 2017 in Helsinki, September 18-20, and will be available for presentation at subsequent events, as appropriate.

See Appendix 2 below.



4. Further planned dissemination activities

4.1 – Promotion and dissemination of results in international fora of relevance

To strengthen the role of the project as a base of cutting edge research, the project will leverage the consortium’s industrial and scientific networks, to present the SEDNA innovations to conferences and other external event opportunities.

As noted above, the consortium had already identified a number of high-level conferences in Europe and internationally at which the SEDNA project could be presented.

The table below sets out some of these that are taking place over the next few months. The list will be constantly updated during the duration of the project.

Conference Name	Date(s)	Location	Organiser	Website
International Conference on Ships and Offshore Structures (ICSOS)	11-13 September 2017	Shenzhen, China	South University of Science and Technology of China	http://www.icsos.info/
Influence of EEDI on Ship Design & Operation	13 September 2017	London, UK	RINA	https://www.rina.org.uk/ShipDesign_EEDI.html
Arctic Energy Summit 2017	18-20 September 2017	Helsinki, Finland	Institute of the North	http://arcticenergysummit.com/
ICCAS 2017 - International Conference on Computer Applications in Shipbuilding	26 - 28 September 2017	Singapore	RINA	https://www.rina.org.uk/ICCAS-2017.html
Enhancing Technology and Innovation for Polar Navigation	16-18 October 2017	St. John’s, Newfoundland, Canada	Marine Institute of Memorial University	http://www.oceaninnovation.ca/Themes/2017/Content/Home/



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International Navigation Conference 2017	27-30 November 2017	Brighton, UK	Royal Institute of Navigation	http://www.internationalnavigationconference.org.uk/
EuroVR 2017	12-14 December 2017	Laval Virtual Center, France.	EuroVR	http://eurovr2017.laval-virtual.org/eurovr-conference-laval
12th Arctic Shipping Summit	21 February 2018	Montreal – Canada	ACI	http://www.wplgroup.com/aci/event/arctic-shipping-summit/
Design and Operation of Ice Class Vessels	21-22 February 2018	London, UK	RINA	https://www.rina.org.uk/ice_Class2018.html
37th International Conference on Ocean, Offshore and Arctic Engineering (OMAE2018)	17–22 June 2018	Madrid, Spain	OMAE	https://www.asme.org/events/omae
13 th International Conference on Marine Navigation and Safety of Sea Transportation	Tbc	Tbc		

In addition to the conferences listed above, SEDNA will be holding meetings of the project's Scientific Committee and Advisory Board, both of which will also be useful for dissemination purposes.

The first of these, a meeting of the Advisory Board, has already taken place on the 27th September 2017.



APPENDIX 1: PRESS RELEASE

August 2017



New EU Research Project to improve safety in Arctic shipping

A new three-year research project, funded by the EU's Horizon 2020 programme, has been launched to address safety and efficiency in Arctic ship operations. SEDNA will develop a novel risk-based approach to Arctic navigation, ship design and maritime operations.

Recent years have seen a rapid increase in shipping operations in Arctic regions, as ice cover has reduced due to global warming. While this offers the potential to save significantly on voyage times, the harsh environment poses new challenges to seafarers and vessels: extreme temperatures, icing of vital equipment, remoteness, fast-changing sea ice covers and a lack of search and rescue infrastructure are very real risks to passengers and crew. These challenges are exacerbated by a lack of accurate sea ice forecasting, an absence of ship bridges specifically designed for the Arctic and – quite frequently – a lack of Arctic-specific training for the navigation crew.

SEDNA is addressing these problems in a variety of ways. Firstly, it will develop the 'Safe Arctic Bridge', a human-centred operational environment for ice-going vessels. Its design and layout will focus on the navigational requirements of the Arctic, namely ice, weather and a lack of chart data. The Safe Arctic Bridge will use augmented reality to improve situational awareness and to support the crew in their decision making. It will be developed and tested in a virtual bridge prototyping system.



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Secondly, SEDNA will develop anti-icing solutions for vessels' superstructures. The build-up of ice on a ship can pose a serious risk to safety, as it affects stability and may render important equipment (like antennas, hatches and life boat davits) unusable. To prevent this, SEDNA will mimic the excellent water-repellent properties of penguins' feathers with a combination of a special surface texture and an oil-based coating. In addition, energy-efficient electro-thermal systems will be used. These solutions will be tested on a real ice-going vessel.

Thirdly, SEDNA will develop a risk-based design framework for ship safety, including the definition of hazard scenarios, their likelihood and their expected consequences. In particular, this will take into account ice loads and their effects on ships. This aspect of the project will be based on the work of the LRF Centre of Excellence for Arctic Shipping and Operations and is expected to contribute to future development of the International Maritime Organization's Polar Code.

In addition, SEDNA will integrate dynamic meteorological and oceanographic data with real-time ice movement predictions and ship performance data to allow for an optimisation of Arctic voyages. In particular, this will lead to the creation of new regional weather and sea ice probability forecast products and ship-based ice monitoring systems. These solutions will provide routing decision support and help to optimise Arctic voyages in terms of safety and fuel efficiency.

Lastly, SEDNA will propose a CEN Workshop Agreement on a process to systematically address safety during bunkering of methanol as a marine fuel. This will include technical provisions and an assessment of safety risks for three bunkering scenarios: truck to ship, shore to ship and ship to ship. A particular focus is on the use of low flash point fuels in Arctic shipping operations.

SEDNA started in June 2017 and will run for three years. Its total budget is around €6.5m. The project is led by BMT Group Ltd (UK) and brings together 13 partners from six different countries, including China. The partners are University College London (UK), Chalmers University of Technology (Sweden), Atkitektur – og designhøgskolen i Oslo (Norway), University of Southampton (UK), MET Office (UK), Cork Institute of Technology (Ireland), Aalto University (Finland), Lloyd's Register EMEA (UK), Aker Arctic Technology Inc. (Finland), Stena Rederi AB (Sweden), Dalian University of Technology (China) and Harbin Engineering University (China).

More details on the project can be found at <https://sedna-project.eu/>.



APPENDIX 2: POSTER



SEDNA Project – Safe maritime operations under extreme conditions; the Arctic case



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 723526

The 'Safe Arctic Bridge'

- Optimising Bridge design for the Arctic means focusing on ice, weather and lack of charts rather than ship traffic.
- Development will be based on AHO's virtual bridge prototyping system.
- Using Augmented Reality (possibly Head Mounted Displays) can increase situational awareness on the bridge and thus improve decision-making.



Background

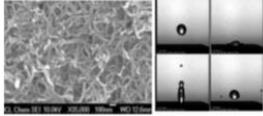
Due to global warming, larger parts of the Arctic waters are becoming navigable. Hence, ship traffic in the Arctic regions is increasing fast over the last years. In particular, Arctic tourism on cruise ships has doubled between 2004 and 2007. Moreover, it is estimated that around 13% of the world's undiscovered oil is located in the Arctic.

Arctic-specific challenges

- Highly variable and dynamic ice cover;
- Ice build-up on vessels (affecting stability);
- Changing wave climate;
- Almost 24 hour darkness in winter;
- Extreme air and water temperatures;
- Lack of specific navigational aids;
- Crews lack experience in Arctic waters;
- Remoteness – far removed from help.

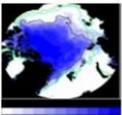
Anti-icing engineering solutions

- Ice build-up on vessel superstructures can dangerously affect the ship's stability and interfere with navigation and communication equipment.
- SEDNA will develop anti-icing coatings mimicking the super-hydrophobic properties of penguins' feathers.



Arctic Voyage Optimisation

- Develop a system for ship routing decision support.
- Factors to be included:
 - Meteorological and oceanographic data sets
 - Models for the prediction of weather and ice conditions
 - Accuracy of hydrographic chart data
 - Models for ship performance and fuel efficiency
- Integrate the output of these models into the Safe Arctic Bridge to provide crews with safest and (if possible) most efficient route.

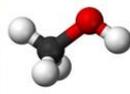



Risk-based framework for safe ship design

- Develop a design framework including the Arctic-specific challenges:
- Ensure that safe ships are designed for use in Arctic environments
- Determine extreme operational conditions for vessels according to their ice class, hence complement the IMO's Polar Code.

Low Flash Point Fuels

- We will analyse safety risks in the bunkering of Methanol
- Provide safety assessments for the use of LFPFs in the Arctic
- Achieve a CEN Workshop Agreement (CWA) on the bunkering of Methanol
- Write IMO info papers




<https://www.sedna-project.eu/>

Partner Logos











