



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101006927.



Verification through Accelerated testing Leading to Improved wave energy Designs

VALID

Verification through Accelerated testing
Leading to Improved wave energy Designs



Your new platform

Deliverable 7.1

Knowledge Exchange and Dissemination Strategy

Version 1.0

2021-03-18

Lead participant: Aquatera

Dissemination level: PU



DOCUMENT STATUS

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Document History

Version	Description	Reviewer	Date
0.1	Initial draft	Natalia Rojas	2021-03-16
1.0	Finalization of document	Natalie Williams Portal	2021-03-18

Dissemination level

Short	Type	
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

EU PROJECT NO: 101006927

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Executive Summary

The VALID project is organised in eight different work packages, specifically designed to develop a hybrid testing platform and to communicate, disseminate and exploit project outputs.

As the overarching document of WP7, this Knowledge Exchange and Dissemination Strategy (Deliverable 7.1) aims to set out the methods for achieving coordinated, engaging, multi-stakeholder exchange of knowledge that will progress the scientific understanding of ocean energy. It also concerns itself with knowledge exchange between academic and industrial partners, in order to bridge the existing gap between them.

Engagement with different stakeholders is of great importance in order to maximise the impact of the project and the number of commercial opportunities arising from it. A similar approach will be employed for VALID to that used as part of the COLUMBUS project. Aquatera will ensure that the knowledge transfer methodology is applied in all of VALID's knowledge exchange activities and dedicated tasks.

The most effective way to allocate target groups for knowledge exchange and dissemination is to understand the services that VALID could provide to end users and stakeholders' needs. For that reason, a detailed stakeholder database will be created and maintained throughout the project.

Stakeholders have been grouped into three categories, including sub-categories for each of them, as explained in section 2. Means of knowledge exchange with and dissemination to each group are discussed, along with planned dissemination vehicles and sector events.

The impact of the VALID project will be maximised by monitoring the indicators established for the project to measure progress towards the goals of D7.1. Benefits to stakeholders are also considered in order to make a bigger difference and get the most from the VALID project.

Lastly, this document is a live document, which will be reviewed and updated on a six-monthly cycle.



Project partner names

RISE	RISE Research Institutes of Sweden AB
TECNALIA	Fundacion Tecnalia Research and Innovation
CORPOWER OCEAN	Corpower Ocean AB
RINA-C	RINA Consulting S.p.A.
BiMEP	Biscay Marine Energy Platform, SA
IDOM	IDOM Consulting, Engineering, Architecture, S.A.U.
AAU	Aalborg University
AVL	AVL List GMBH
Wavepiston	Wavepiston AS
TU Delft	Delft University of Technology
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1 Introduction

1.1 Purpose of this document

The purpose of Deliverable 7.1 Knowledge Exchange and Dissemination Strategy (D7.1) is to support VALID's Work Package 7 (WP7) activities, ensuring maximum visibility, accessibility and impact of the project, making VALID's project outcomes accessible and visible to the different target stakeholders. It is an overarching document, setting out the strategy for achieving coordinated, engaging, multi-stakeholder, exchange and dissemination of knowledge.

The document identifies opportunities for communicating VALID's knowledge outputs (KOs) beyond the project consortium and, in turn, incorporating knowledge acquired through the process of sharing. It is important that this strategy encompasses the lifespan of the project in order to capture opportunities at every phase of the project.

Knowledge exchange is a two-way process and acknowledges that the project will not be run in pure isolation. It allows for both commercial and non-commercial activities, such as research collaborations, consultancy, licensing and publications.

Knowledge dissemination can be defined as a planned process of providing information on the quality, relevance and effectiveness of the results of programmes and initiatives to key actors. It is an on-going process, occurring as and when new information becomes available.

VALID will be deemed a success if it can respond to the scope and specific challenge set in the call topic and improve awareness of VALID's KOs at the European level. The consortium will focus on ensuring long-term value creation from technology development. Expected impacts should be seen in terms of the consequences of improved knowledge uptake by different marine and maritime stakeholders. Therefore, in order to understand and achieve the impacts of the project, objectives should be presented by benefiting end users and targeted groups.

D7.1 will apply the COLUMBUS¹ methodology for knowledge collection and transfer to end users and measure the impact for sharing VALID's KOs.

The Knowledge Exchange and Dissemination Strategy is supported by and will feed into production of the other deliverables within WP7, namely:

- D7.2 Data Management Plan (Month 3);
- D7.3 Communications Plan and Project Website (Month 3);
- D7.4 Plan for the Exploitation and Dissemination of Results (PEDR) (Month 9);
- D7.5 PEDR Final Version (Month 36);
- D7.6 Training Program Plan (Month 9);
- D7.7 Stakeholder Knowledge Exchange Plan (Month 18);

¹ EU funded project (2016-2018) which intended to capitalise on the European Commission's significant investment in marine and maritime research by ensuring accessibility and uptake of research knowledge outputs by end-users: policy, industry, science and wider society. More information can be found at <https://www.columbusproject.eu/>



1.2 Background to the project

The VALID project will develop a hybrid testing platform that encompasses several components and subsystems that form wave energy converters (WECs) as test cases, with the final goal of delivering a novel methodology for accelerating WEC technology development.

The consortium approach builds upon a unique hybrid method that is highly adaptable (covering a wide range of technologies and input conditions) and that can minimise expenditure in both prototype development costs and real sea-testing, whilst promoting increases in the reliability and survivability of critical components.

The VALID project is organised in eight different work packages specifically designed to develop a hybrid testing platform and communicate, disseminate and exploit project outputs.

1.3 Objectives

The following project objectives are addressed by WP7:

- Objective 6: To promote exchange of knowledge and inform on the progress of the scientific understanding of ocean energy.
- Objective 7: To establish an ambitious strategy and exploitation plan to successfully exploit VALID project results.

The testing and expertise gained through the activities of the earlier work packages will lead to an overall assessment of critical factors (fourth phase), such as reliability, survivability, performance, levelized cost of energy (LCOE) and cost reductions. Consequently, the overall project learnings will be integrated into new testing guidelines and standardisation activities (fourth phase), followed by exploitation, knowledge exchange and dissemination of project results, along with the most suitable project management activities to coordinate the efforts of 12 competitive project partners (addressed in WP8).

The following are objectives for D7.1 Knowledge Exchange and Dissemination Strategy, specifically:

1. Ensure effective dissemination of the VALID project, its objectives, activities and results.
2. Promote VALID's KOs informing and educating all interested communities.
3. Inform progress and make VALID's outcomes available to the different target audiences.
4. Carry out stakeholder engagement, facilitating networking exchange, collaboration and open dialogue of key ocean energy stakeholders as well as knowledge transfer.
5. Collect feedback, receiving inputs and feedback from the various target groups.
6. Enhance the visibility and impact of the VALID project to different stakeholders and the wider public.
7. Promote knowledge sharing, greater public awareness, transparency and education.
8. Contribute to the implementation and shaping of national and European policies and systems related to ocean energy.
9. Extend the impact of the VALID project.



1.4 Communication Team

A kick-off meeting for WP7 was held on 11/02/2021 and the Communication Team (CT) representative from each party was invited. The Terms for the Communication Team were shared (see Annex 6.2 in D7.3) and responsibilities explained.

Each CT member will oversee the activities within their respective organisation, related to:

- Communication;
- Dissemination;
- Stakeholder engagement; and
- Exploitation.

Aquatera, as WP7 leaders, will be guiding the development of tasks and contributions from CT members.

1.5 Anticipated results

An important exercise for the Knowledge Exchange and Dissemination Strategy is to match project outputs with relevant stakeholders. The planned KOs are summarised in Table 1.

The main results that are expected to come from the VALID project are novel test rig prototypes, to include the new, open and integrated VALID Hybrid Test Platform and four customised physical test rigs. Also expected are recommendations on new testing procedures and standardisation guidelines.

The process for exploitation of results includes a direct route through the VALID framework, within the project lifetime, and an indirect route beyond the framework and extending past the completion date of the VALID project. The stakeholder groups (see Section 2) are three, the primary group includes potential users of the hybrid platform, public bodies, European ocean energy testing facilities and laboratories and the Industry and value chain. The second group brings the research community, private investors and public funders and the third group includes policy makers, civil society & the media and other users.



Table 1: Main, planned knowledge outputs (KOs) for the VALID project.

KOs	Dissemination month	Stakeholder group(s)
One open and integrated platform for testing of critical components and subsystems	Month 33	Primary Stakeholders
Novel test procedures beyond current testing practices based on hybrid testing methods, combining virtual and physical test rigs	Month 36	Primary Stakeholders Secondary Stakeholders
Recommendations for critical components and common failure modes applicable to a wide range of wave energy devices	Month 36	Primary Stakeholders
User case learning and feedback	Month 33	Primary Stakeholders
New software tools, data and virtual test rigs integrated in the new testing platform	Month 36	Primary Stakeholders
Guidelines and standards	Month 36	Primary Stakeholders Secondary Stakeholders Tertiary Stakeholders

The identification of KOs will be developed throughout the VALID project.

Knowledge Output (KO): A unit of knowledge or key learning generated by or through VALID. They are not limited to de-novo or pioneering discoveries but may also include new methodologies, processes, adaptations, insights, alternative applications or prior know-how and knowledge.

Potential results of VALID will continue to be matched with potential users as the project progresses.

2 Stakeholders

There are many approaches to identifying and categorising stakeholders. The CT has classified the stakeholders into three groups: primary stakeholders, secondary stakeholders and tertiary stakeholders, as explained in Section 2.1.

2.1 Stakeholder groups

A stakeholder database will be built during the VALID project, categorising the stakeholder groups (SG) as indicated in Figure 1, above, and following the description below.



Figure 1: Main, Stakeholder Groups for the VALID project.

- **Primary stakeholders:** VALID's primary stakeholder group is composed of direct users of the main outputs from the VALID project, including:
 - **Potential users of the hybrid platform:** this group is made of potential users of the VALID platform with the aim of harmonising users' needs and existing gaps (i.e. technology developers).
 - **Public bodies:** this group includes public organizations as receivers of KOs (i.e. European Research Alliance (EERA), Joint Research Centre (JRC)).
 - **European ocean energy testing facilities and laboratories:** members of this group share a common mission with existing ocean energy test centres and labs to understand potential synergies. The knowledge transfer activities for this group aim to take advantage of synergies, share knowledge, avoid duplication of efforts, seek opportunities for cooperation in the project's development and in the provision of services, etc. However, above all, collaboration will take place in order to maximise the use of the added value generated by the VALID project.



- **Industry and value chain:** industry representatives and value chain players related to wave renewable energy will be part of this group. There are links with the Industry Advisory Board and the Ocean Energy EU Funded Project Working Group (i.e. Ocean Energy Europe (OEE), certification agencies, Original Equipment Manufacturer (OEM) etc.).
- **Secondary stakeholders:** this group has an interest in the added value generated by the VALID project. They are not the ones who take advantage of the services provided or who finance them, but they still receive an added value, either through industrial or new scientific and technological, theoretical developments or through economic benefits. The secondary stakeholder group has three sub-categories:
 - **Research community:** the selected profiles will be of ocean renewable energy doctoral students, university professors or researchers.
 - **Private investors:** this group will be formed of investors who have shown a direct interest in the VALID platform and representatives of private investors who have invested in similar projects, as well as reference investment funds or investors related to green technologies in general and marine energies in particular.
 - **Public funders:** this group comprises agents that provide economic resources (i.e. key representatives regionally, national or European public agencies directly involved in the financing of testing platforms, as well as entities that have financed the implementation of specific ocean technology tests or projects)
- **Tertiary stakeholders:** the third group is composed of those stakeholders that are indirectly influenced by the social, environmental, political or financial consequences that the VALID project may produce. These are policy makers, civil society, NGOs, the media and other influencers.
 - **Policy makers:** EU, national and regional policy makers that have the authority to develop regulations.
 - **Civil society & the media:** key representatives of local citizens, visitors, civil society organisations and the press.
 - **Other users:** other influencers (i.e. maritime clusters) that have shown interest in VALID activities and outputs, and that are circumscribed to the geographical area where VALID is active.

2.2 Stakeholder database

A stakeholder mapping exercise will be developed to create VALID's stakeholder database. Therefore, stakeholder analysis will be undertaken as an initial step with the objective of developing a comprehensive database of stakeholders that could be relevant to support all WP7 tasks and deliverables.

This database will include different categories depending on their relation with or interest to the VALID project and the SG they underlie.

Stakeholder information will be compiled from different sources, including but not limited to:

- Technological platforms;
- MRE associations;



- Cordis database of MRE-related projects;
- Contact network of VALID consortium members;

The database will be regularly updated, presented in a user-friendly way and equipped with a powerful search tool in order to perform searches using different criteria. The stakeholder database will be saved in SharePoint and will follow the procedures from D7.2 Data Management Plan.

All CT members are expected to add relevant contacts and information to the VALID Stakeholder Database. Suggestions can be sent to the WP7 leader who will keep control of the MASTER database.

The MASTER document will be uploaded to SharePoint.

When adding new information, the document shall be saved with a new version number and date, for example: **VALID Stakeholder Database_v8 (25.02.2021)**.

2.3 Stakeholder engagement

Stakeholder engagement will provide opportunities to align VALID's business practices with societal and industrial needs and expectations. Successful stakeholder engagement requires a commitment to actively engage with stakeholders, listen to them, build a relationship with them and then respond to their concerns in a mutually beneficial way.

There are many ways of discovering and bringing stakeholder perspectives into the organisation in order to achieve alignment with them, and there are many ways to respond to those views. Each stakeholder profile will require a different strategy to build long-term involvement and trust in the VALID platform.

The stakeholder engagement activities involve time, resources and commitment, and all of these need to be carefully planned in advance. Based on the profiles and their priority, as will be identified in the stakeholder database, the Stakeholder Engagement Plan (D7.7) will develop a specific strategy, which will consider the necessary resources, steps and tools to reach each of these profiles.

2.4 Knowledge transfer, COLUMBUS methodology

Aquatera participated in the COLUMBUS initiative in a partnership of 26 organisations as competence node leader for marine physical resources, prioritising ocean energy. With a view to achieving optimal exploitation and enhancing the impact of research funded by the EC, the project aimed to deliver the widest range of benefits to society from marine and maritime research. It developed robust structures and methodologies to facilitate carrying out a large-scale pilot of knowledge transfer across the marine and maritime sectors of Europe, to simultaneously contribute to blue growth and the implementation of legislation, such as the Marine Strategy Framework Directive.

A similar approach will be employed for VALID. Aquatera will ensure that the knowledge collection and transfer methodology is applied in all of VALID's knowledge exchange activities and dedicated tasks.

The COLUMBUS methodology will be adapted to the VALID project, as shown in the three steps, below.

2.4.1 Collection

All collected knowledge outputs (KOs) must be validated by the CT before the analysis. The stakeholder database will be used to identify the target users of the KOs.

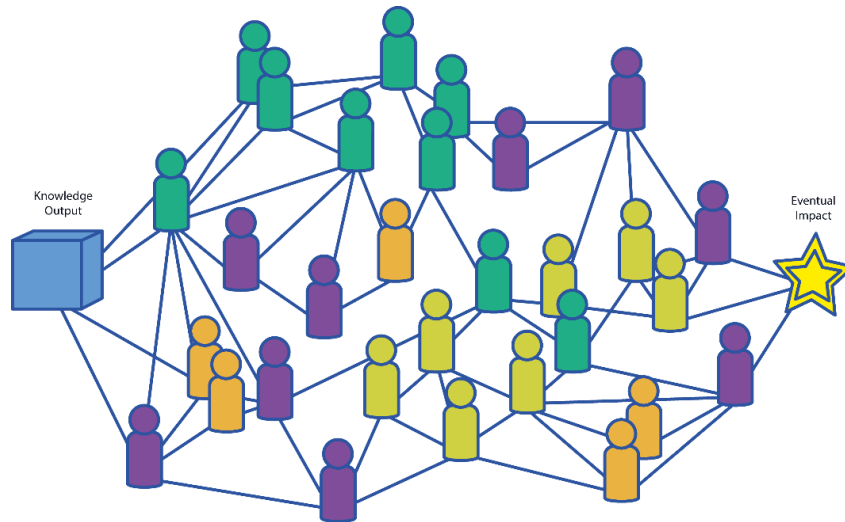


Figure 2: Stakeholder groups prioritise.

- An accurate **Knowledge Output Pathway** (KOP) is developed and high potential KOs are selected to move to the transfer phase.
- The KOP template (see Annex 1) will be created for each KO from the VALID project.
- For a KO to meet its potential to fulfil a knowledge need, at the analysis stage, the stakeholder mapping can help to visualise the complexity of the interactions and relationships existing within the landscape.
- The best-case **Eventual Impact** for the KO should be proposed, and a KOP developed accordingly. The KOP is the most important aspect of the COLUMBUS knowledge transfer (KT) methodology, as it maps out how knowledge can move from its current position and be applied by different actors, in order for it to reach its end user and result in eventual impact. Within the KOP, information should be provided on:
 - The identification of each actor (initial stakeholders mapping done in Collection)
 - What activity might be performed to pass the knowledge to this actor; and,
 - How each end user should apply the KO for it to travel down the KOP.
- Once the KOP is visualised, a **Target User** (from the stakeholders selected at the collection phase) will be identified. The Target User is first actor that the CT want to transfer the knowledge to and thus it is the first step in the KOP.

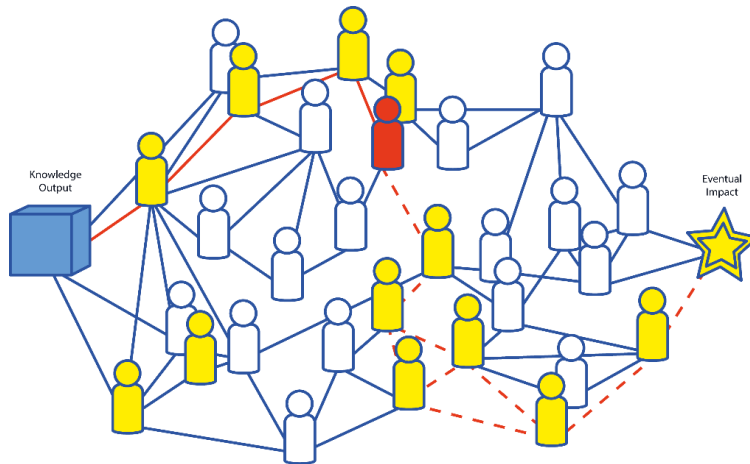


Figure 3: KO travelling down to reach impact.

- To increase the probability of the Target User applying the KO, all transfer activity must be developed specifically for them and understand their baseline knowledge, attitudes and practice, role and responsibility.
- The Target User and KOP templates are shown in Annex 1.

2.4.2 Transfer

- The transfer phase is only for KOs that have been assessed at analysis stage and have a) been prioritised as relevant and impactful to the stakeholders and b) been suitable and timely for transfer within the framework of the VALID project.
- The Target User profiling carried out at the analysis stage can then be used as a basis to design a strong, focused transfer activity using D7.3 tools and channels. This should describe the messages and activities that WP7 plans to undertake to ensure that we pass the KO to the Target User.
- If the CT cannot measure impact, the team should not carry out transfer. This is an extreme but important point. COLUMBUS methodology is based on measurable impact and thus it is essential that within the KTP one defines how one intends to measure impact, including the **Transfer Impact** of each activity (see impact indicators template in Annex 1). Prior to undertaking the transfer activity, one should determine how one will measure if the transfer of knowledge to the Target User was successful and how to assess if it is taken up and applied.
- There should be at least one indicator per step of the KOP and the indicators will most likely correlate to how the CT predicts the subsequent Target Users would apply the knowledge to move the KO down the KOP.
- The KTP template is shown in Annex 1.

Records of the Target Users contact, the KOP and impact will be saved in Annex 2.



3 Dissemination methodology

The specific aims of VALID's methodology for dissemination are to promote knowledge sharing, greater public awareness, transparency and education. D7.1 involves not just looking at where and when the information could be disseminated but also what should be communicated and how it should be presented, all in coordination with D7.3 Communication Plan.

Engagement with different stakeholders is of great importance in order to maximise the impact of the project and the number of commercial opportunities arising from it.

The work will include establishing an ocean energy EU-funded project working group to facilitate interaction and exchange of knowledge with other EU-funded initiatives. The terms of reference for this group, program of activity and objectives will be set out in D7.7 Stakeholder Engagement Plan, to ensure a strategic approach to the delivery of all stakeholder engagement activity.

Since a key aim of the VALID project is for newly-tested methodologies to be implemented, applied and utilised by the wave energy sector and related stakeholders, experts from academia and industry will be involved during the project to discuss specific results and to exchange ideas and opportunities. In particular, they will support the project with valuable, experienced and commercially-orientated insights into future integration of the VALID hybrid testing platform with the market.

3.1 Target audiences

The most effective way to allocate target groups for knowledge exchange and dissemination is to understand the services that VALID could provide to end users.

As explained in Section 2.2, a detailed stakeholder database will facilitate the identification of the stakeholders interested in the VALID project. Depending on their level of engagement, different dissemination mechanisms will be employed.

SGs include companies and organisations who will benefit from or interact with the outputs developed in the VALID project, such as end users, developers, investors, communities, governments and policy makers.

Target sectors for knowledge exchange and dissemination include those in the SG (See Section 2.1). The planned activities for engaging each sector are below.

3.1.1 VALID's dissemination mechanisms

VALID will adopt a multi-stranded approach for dissemination to ensure the consortium's efforts are effective. The vehicles to be used for this purpose are described in the table below.



Table 2: Key routes for VALID dissemination.

Mechanism	Target Audience	Objective
Workshops	Primary and secondary stakeholder groups	<p>Used in WP1 & WP 2 initially to raise awareness of the projects and primarily to gather information for:</p> <ul style="list-style-type: none"> - Technical and strategic profiling of existing models - Profiles of existing and future end users of the VALID platform - Validation of IEC/TS specifications <p>Specific inputs provided for the development of the methodologies, components, standards, etc.</p>
Face-to-face meetings		
Phone calls		
Questionnaires		
Stakeholders database	All stakeholder groups	Facilitate information exchange within the MRE community, regarding key achievements of the VALID project
Social media	All stakeholder groups	Promote the value and impact of the VALID project
Website	All stakeholder groups	Make public the value and impact of VALID activities and outputs
Scientific publications	Scientific community; industry and technology audiences	Ensure the VALID project is contributing to advancing state-of-the-art technology, which is communicated to peers within the MRE community
Conferences	Technical audiences within research and industry categories and from across all types of MRE sectors	Promote VALID activities and achievements (strategic and scientific) and raise awareness of benefits to potential end users/beneficiaries. Reach a large and informed audience, including many early-stage & international researchers.
Press releases	General public, investors, special, interest groups and industry/trade communities; policy and governance groups, EC	Ensure the experiences of VALID's partners and those who engage with the project are effectively and consistently disseminated to relevant audiences



Partners, local communication	Local, regional & national audiences	Ensure key KO from the VALID's KOs and deliverables reach tertiary stakeholder groups such as schools, local media, etc.
All above	OE initiatives, such as EERA Ocean Energy Joint Program (EERA-Ocean), IEC/TC-114, The EU Technology and Innovation Platform for Ocean Energy (TP-Ocean, Ocean Energy Systems Implementing Agreement (OES), KIC InnoEnergy	<p>Definition of technical innovation challenges for the VALID project under: i) modelling, ii) maintenance, iii) devices and iv) components</p> <p>Achievements of the VALID project into reduced costs and development times of WECs</p> <p>Feedback about research priorities in the ocean energy sector</p> <p>Integration of recommended guidelines for accelerated hybrid testing</p>
Ocean Energy EU Funded Project Working Group using most of the resources listed above as required	Other EU funded initiatives	Knowledge exchange, feedback and future collaborations

3.1.2 Primary stakeholder dissemination

Dissemination to the primary stakeholder group (potential end users of the hybrid platform, industry and the value chain, public bodies and testing facilities) will be done during the project with the aim of raising awareness of the project and primarily to gather information for the WP tasks such as technical and strategic profiling of existing and testing platforms, support the analysis on wave energy converters (WECs) sub systems/components and respective criticalities etc.

The knowledge transfer activities from the VALID project to specific stakeholders will be done through the COLUMBUS methodology (see Section 2.4). VALID's deliverables will be shared using the routes listed in Table 2. The ocean energy events listed in Table 3 will be part of the channels identified for this group.

3.1.3 Secondary stakeholder dissemination

The secondary stakeholder group is formed by the, research community, public funders and private investors. The objective for reaching this group is to verify and validate findings and evidences from VALID's outputs, to request specific inputs for WPs, facilitate information exchange within the ocean renewable energy community regarding opportunities, investment, collaboration, etc. as well as to promote the value and impact of the VALID project. Also, the CT should ensure that VALID's contribution to advancing state-of-the-art technology is disseminated to peers within the ocean renewable energy research community. In terms of academic dissemination, it will be mainly carried out via conventional channels, such as journal and conference publications and presentations. To create the widest impact, VALID will adopt the following best practices:



- High-quality journals with short review periods, fast online publication and those indexed by widely accessed research databases (ISI Web of Knowledge, IEEE Explore) are preferred (for example Science, American Scientist, PNAS, Oceanography, Journal of Geophysical Research-Oceans, Progress in Oceanography, Physical Review Letters, IEEE Transactions on Image Processing, Bioinspiration & Biomimetic, Applied Optics, Journal of Light wave Technology, Measurement Science and Technology, IEEE Sensors Journal, Sensors and Actuators, etc.);
- High-quality peer-reviewed conference publications indexed by research databases (such as ISI Web of Proceedings, Inspec, IEEE Explore, etc.) and those with fast online publication are preferred;
- Participation in or even organisation of special sessions and workshops will be carried out, in conjunction with established conferences on the subject of ocean energy;
- Publications not protected by copyright laws will also be disseminated by the project website; and
- Source code, simulation results and other materials not protected by intellectual property rights will be disseminated through the project website to encourage transparency and promote collaboration.

Educational dissemination will be done through the following activities:

- Engagement of engineering students in VALID activities by proposing topics for master's and bachelor's thesis and other activities. We believe that this is the best way to increase interest in research and technology, and allow for ample opportunities to visit partner institutes or to participate in field tests; and
- Engagement of environmental science, marine management and policy-orientated students for consideration of potential environmental impacts and opportunities for improvement of the consenting regime.

The ocean energy events listed in Table 3 will form one of the channels identified for this group.

3.1.4 Tertiary stakeholders' dissemination

This group includes policy makers, civil society, the media and other users. The aim of the dissemination activities within this group is to promote VALID's activities and achievements (strategic and scientific) and raise awareness of benefits to potential end users and beneficiaries, as well as reaching a large audience, including many early-stage and international students.

Another objective for reaching this group is to present the rationale and evidence base for VALID platform new testing procedures for the purpose of ocean energy policy making.

The ocean energy events listed in Table 3 will form one of the channels identified for this group, as per the previous group.

3.2 Ocean energy events

The VALID project and its outcomes will be presented at events relating to ocean energy, such as conferences and webinars. Such events that are known to be forthcoming between 2021 and 2023 are listed in Table 3.



Table 3: Calendar of suggested events.

Type	Event	Date
Webinar	OERA Webinar Series: The Pathway Program: Defining approved environmental monitoring for ocean energy projects	22/04/21
Conference	2021 Waterpower Week in Washington	28/04/21
Conference	8th International Conference on Ocean Energy (ICOE 2021)	28/04/21
Conference	International Coastal Symposium (ICS2021)	3/05/21
Conference	European Maritime Day 2021	20/05/21
Conference	2021 Gordon Conference on Coastal Ocean Dynamics	6/06/21
Conference	CLEANPOWER 2021 Conference and Exhibition	7/06/21
Conference	International Conference on Ocean, Offshore & Arctic Engineering	21/06/21
Conference	Seenergy 2021	8/07/21
Conference	8th PRIMaRE Conference	29/06/21
Conference	Offshore Technology Conference (OTC) 2021	16/08/21
Conference	All-Energy 2021	18/08/21
Conference	Business Network for Offshore Wind 2021 International Partnering Forum (IPF) Together	24/08/21
Conference	European Wave and Tidal Energy Conference	5/9/2021
Conference	9th International Conference on Sustainable Development (ICSD) 2021	8/09/21
Conference	Oceanology International (OI) Middle East 2021	20/09/21
Conference	OCEANS 2021	20/09/21
Conference	ACP Resource & Project Energy Assessment Virtual Summit 2021	27/09/21
Conference	Offshore WINDPOWER 2021 Conference & Exhibition,	13/10/21
Conference	Offshore Energy Exhibition & Conference (OEEC) 2021	26/10/21
Conference	Marine Renewables Canada 2021 Annual Conference	24/11/21
Conference	CLEANPOWER 2022 Conference & Exhibition	16/05/22
Conference	CLEANPOWER 2023 Conference & Exhibition	22/05/23

Feedback from the attendance at webinars and conferences will be collected in Annex 3, along with records of attendance at the events listed in the table above.



4 Expected impact of dissemination activities

Impact is the effect that the activities carried out through the VALID project and its results have on people, practices, organisations and systems. Dissemination of results can help to maximise the effect of the activities being developed so that they will impact on the immediate participants and partners for years to come. Benefits to other stakeholders should also be considered in order to make a bigger difference and get the most from the VALID project.

To measure the impact of the VALID project, a number of indicators are defined to evaluate achievements and generate recommendations for future improvements (see Table 4).

The indicators will be used to measure progress towards goals specified in Section 1.3 and would be both quantitative relating to numbers and percentages, as well as qualitative, relating to the quality of the participation and experience.

Table 4: Indicators for VALID dissemination monitoring and evaluation.

Indicator number	Indicator	Project objective (Section 1.3)	Method of measurement	Expected results		
				Year 1	Year 2	Year 3
1	VALID's website	1,2,3,4,6 and 7	Number of visits	150	200	250
			Duration of visits	3 minutes	3 minutes	3 minutes
			No. Downloads per month	15	20	25
			No. of referrals from external web pages	20 (excluding consortium partners)	40 (excluding consortium partners)	50 (excluding consortium partners)
2	Publications	2,6,7,8 and 9	No. of submitted scientific papers	1	2	3
			No. of articles in ocean energy magazines	2	2	2
3	Research data	7,8 and 9	No. of open access research data set categories	1	1	1
4	Attendance at events	2,3,4,5,6,8 and 9	No. of attended conferences with presentations or posters	1	2	5
			No. of oral communication at congresses and events	1	5	8



Indicator number	Indicator	Project objective (Section 1.3)	Method of measurement	Expected results		
				Year 1	Year 2	Year 3
			No. of attended industrial events and/or fairs	1	1	4
			No. of flyers or other material distributed at events	10	40	100
5	Organisation of events	All	No. of workshops organised	-	-	2
			No. of webinars organised	-	1	1
			Registered people	-	-	40
			No. of flyers or other material distributed at events	-	-	30
6	Social media	1,2,3, and 9	No. of contact update per month	100	200	200
			No. of visits to posts	50	100	100
			No. of shares on posts	15	20	30
7	Press release	1,2,3,6,7,8 and 9	No. of press releases	2	2	4
8	Interviews in local radio/ TV stations	1,2,3,6,7 8 and 9	No. of interviews	1	1	1
9	Development of links with key organisations such as OEE	2,4,5 and 9	No. of organisation involved in the project related to ocean energy	10	20	40
10	Development of links with other EU	2,4,5 and 9	No. of OE projects contacted	2	2	2



Indicator number	Indicator	Project objective (Section 1.3)	Method of measurement	Expected results		
				Year 1	Year 2	Year 3
	funded projects					
11	Stakeholder database	4 and 5	No. of stakeholders	50	100	150

For monitoring the progress of the expected results, a table has been created (see Annex 0). This table will be updated every six months.

4.1 Contingency plans

The contingency measured for the indicators listed in the table above to support the monitoring of the dissemination activities and the impact are listed below.

- Indicator 1: VALID's partners should foster downloads through their networks, website layout and the way of presenting content, promotion of website using the communication tools and channels detailed in D7.3.
- Indicator 2: Follow-up with media list, expand journalist contact beyond media list, ask CT to share with their Parties' media contacts, reach out to individual journalists on media list, seek new activities for VALID to engage in (e.g. webinars or workshops); promote more project updates.
- Indicator 3: Encourage VALID partners for data transparency.
- Indicator 4: Find alternative events (from Table 3), contact organisers for which several consortium experts are members of the international committee and/or chairman or reviewer of sessions, 5 industrial fairs or exhibitions of interest to VALID to be identified.
- Indicator 5: Two project workshops are organised at the end of the project, 2 webinars are proposed in the intervening months, permission to distribute flyers in other events.
- Indicator 6: Partners will foster VALID within their social media and take advantage of partners' LinkedIn large groups (RIS, RIN, TEC), repost actions using the profiles and groups of VALID partners and encourage visitors to share experience and knowledge.
- Indicator 7: Press releases schedule already in D7.3, gather alternative suggested press release topics from CT (see Table 1 for initial list (D7.3)), contact local media in organised events.
- Indicator 8: contact local media in organised events
- Indicator 9: Reach out to contacts, if they already part of the dataset, if not general contact points.
- Indicator 10: Reach out to project coordinators.
- Indicator 11: VALID's partners should foster the stakeholders' creation and engagement.



5 Intellectual property strategy

The strategy for dealing with intellectual property (IP) within the VALID project.

IP is covered in greater detail in D7.2 Data Management Plan.

The VALID Data Management Plan (DMP) presents strategies to address and treat collected or generated data, allocation of resources, data security and ethical aspects. Moreover, the VALID DMP will be a living document, such that it will be updated over the course of the Project.



6 Summary

6.1 Benefits to end users

The anticipated benefits to end users, as a result of the VALID project include:

- Accelerate the physical testing process;
- Support timely design decision by early prediction or indication of failure;
- Improved confidence in overall testing, especially where repetition is needed for reliable data which is difficult to attain with Real Ocean testing;
- De-risking the design process of wave energy converters;
- New testing recommendations and guidelines for standardisation for enhanced technology design and testing;

6.2 Validations and recommendations

The Knowledge Exchange and Dissemination Strategy will be validated by the partnership and updated thereafter at six-month intervals. Furthermore, the project Steering Committee will also review the document at each meeting and provide recommendations. The following will also be documented accordingly:

- Records of the Target Users contact, the KOP and impact will be saved in Annex 2.
- Feedback from the attendance to webinars and conferences will be collected in Annex 3.
- For monitoring the progress of the expected results, a table has been created, see Annex 4. This table will be updated every 6 months.
- Recommendations will be listed at a later stage.



7 Nomenclature

Abbreviations

CT	Communications Team
EC	European Commission
EU	European Union
H2020	Horizon 2020
KOs	Knowledge outputs
KOP	Knowledge Output Pathway
KTP	Knowledge Transfer Plan
WP	Work Package
WPL	Work Package Leaders
SG	Stakeholder Groups
IPR	Intellectual Property Rights



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101006927.



8 References

VALID, Deliverable 7.2 Data Management Plan, version 1.0

VALID, Deliverable 7.3 Communications Plan, version 1.0



Annex 1 Knowledge Output Pathway Template (KOP)

The **Target User** profile will be built for every stakeholder identified that WP7 leaders will intend to transfer the knowledge output to in the **Knowledge Output Pathway (KOP)**.

Target User Profile	Target User identified as:	Click or tap here to enter text.
	Is the Target User aware of the Knowledge Output already?	Click or tap here to enter text.
	What level of technical understanding does your Target User have of the surrounding topic? Does the KO need translation (from technical to layman's terms) or do they require training to take up the KO?	Click or tap here to enter text.
	What is the relevant role/responsibility of the Target User?	Click or tap here to enter text.
	Is your Target User actively seeking information related to the KO and why would they be interested in the KO?	Click or tap here to enter text.
	Where does the Target User currently get their information/knowledge from and what is their preferred method for communication?	Click or tap here to enter text.
	Who else could be influencing the Target User's decisions? Do they have the authority to apply your knowledge? If not, who does and how can you access this person?	Click or tap here to enter text.



Knowledge Transfer Plan (KTP)	Proposed Knowledge Transfer Activity: Please describe your planned activity.	Click or tap here to enter text.
	Message: [Reasons why the knowledge is innovative, beneficial and, addresses the Target Users needs]	Click or tap here to enter text.
	Channel: [Examples: Email, face-to-face, social media, active networks]	Click or tap here to enter text.
	Format: [Examples: website; policy briefing; guidelines. Where will the activity occur? Provide details of the activity.]	Click or tap here to enter text.
	Persons responsible: [Example: Who will perform/lead the KT?]	Click or tap here to enter text.
	Timeline:	Click or tap here to enter text.



	[Example: are there external considerations to be taken into account when organising the KT activity e.g. consultation meetings for standards etc.]	
	Resources: [Example: Budget and time required to perform KT activity? Do you need assistance from WP7?]	Click or tap here to enter text.



Impact Indicators	<u>Knowledge Transfer Activity</u> How do you plan to evaluate this Knowledge Transfer Activity? For example, how many target user(s) were engaged in the activity?	Click or tap here to enter text.
	<u>Knowledge Output Uptake</u> How do you plan on measuring uptake of KO by participants? For example, how will you measure that your target user understood and took on board the knowledge? Did they change their behaviour, attitude and/or practice?	Click or tap here to enter text.
	<u>Knowledge Output Application</u> How do you plan on measuring application of KO by participants? For example, what demonstrates that the KO is moving down the KOP? Was the KO applied, by the Target User, as predicted in the KOP?	Click or tap here to enter text.



Annex 2 Records of KOP

Table 5: KOP activity.

Target user	Knowledge transfer activities	Date	Impact



Annex 3 Event records

Table 6: Event tracking and feedback.

Event	Initials	Date	Summary	Follow up actions



Annex 4 Monitoring and evaluation

Table 7: Monitoring VALID's impact.

Indicator number	Indicator	Method of measurement	Expected results			Progress		
			Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
1	VALID's website	Number of visits	150	200	250			
		Duration of visits	3 minutes	3 minutes	3 minutes			
		No. Downloads per month	15	20	25			
		No. of references from external web pages	10 (excluding consortium partners)	20 (excluding consortium partners)	25 (excluding consortium partners)			
2	Publications	No. of submitted scientific papers	1	2	3			
		No. of articles in ocean energy magazines	1	1	1			
3	Research data	No. Of open access research data set categories	1	1	1			
4	Attendance to events	No. of attended conferences with presentations or posters	1	2	5			
		No. of oral communication at congresses and events	1	5	8			
		No. of attended industrial events and/or fairs	1	1	4			
		No. of flyers or other material distributed at events	10	40	100			
5	Organization of events	No. of workshops organised	-	-	2			



Indicator number	Indicator	Method of measurement	Expected results			Progress		
			Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
		No. of webinars organised	-	1	1			
		Registered people	-	-	40			
		No. of flyers or other material distributed at events	-	-	30			
6	Social media	No. of contact update per month	100	200	200			
		No. of visits to posts	50	100	100			
		No. of shares on posts	15	20	30			
7	Press release	No. of press releases	2	2	4			
8	Interviews in local radio/ TV stations	No. of interviews	1	1	1			
9	Development of links with key organisations such as OEE,	No. of organization involved in the project related to ocean energy	10	20	40			
10	Development of links with other EU funded projects	No. of OE projects contacted	2	2	2			
11	Stakeholder database	No. of stakeholders	50	100	150			