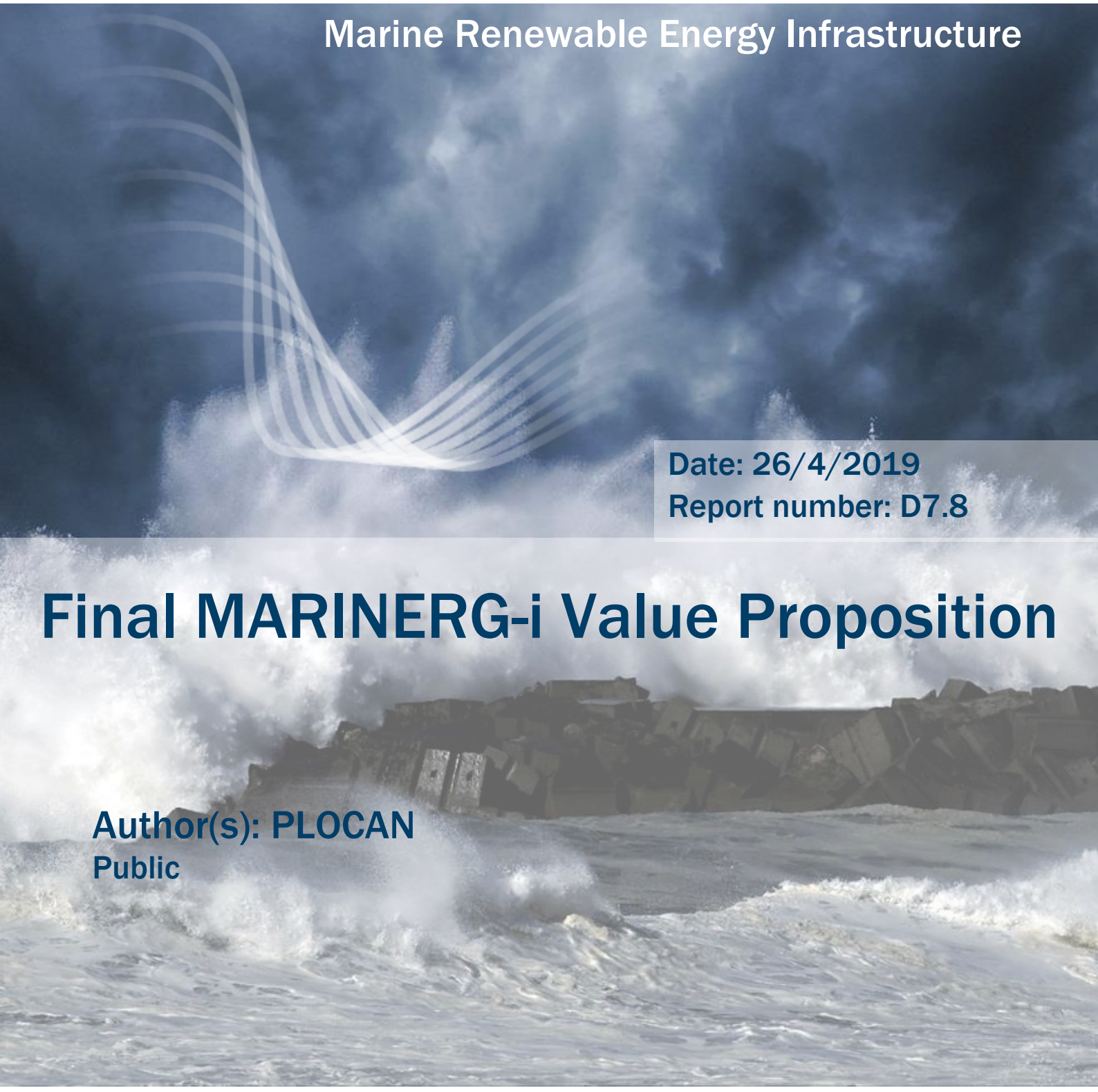
marinerg-i

Marine Renewable Energy Infrastructure



Date: 26/4/2019
Report number: D7.8

Final MARINERG-i Value Proposition

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Public

This project has received funding from the European Union's H2020 Programme for research, technological development and demonstration under grant agreement No. 739550

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Version	Date	Description			
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Abbreviations

SH	Stakeholder
DB	Database
NGO	Non-governmental Organization
ORE	Ocean Renewable Energy
R&D&I	Research, Development and Innovation
RI	Research Infrastructure
SMEs	Small and medium-sized enterprises
TRL	Technology Readiness Level
PS	Principle Stakeholder

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1. Executive Summary

This report describes the final value proposition iterated by the consortium partners throughout the project. The proposition started with the initial Deliverable D7.2 – Initial MARINERG-i Value Proposition, and has been updated through various stages. Thus it takes into account consortium interaction through the integration workshop (Milestone 5), TAC consultation and stakeholder engagement (D7.5 & D7.6), reflecting priorities and business opportunities initially not taken into account. It is hoped that the final proposition will help secure investment, ensure sustainability and support ongoing developments in the coming years.

2. Introduction

The research priorities for offshore renewable energy (ORE) are set out in the Strategic Research Agenda for Ocean Energy[1] and the relevant references to floating offshore wind structures in the European Technology & Innovation Platform on Wind Energy[2]. Most of the research infrastructure needed to undertake scientific studies to address the research agendas identified already exists as a result of significant investment by EU member states. However, working individually, member states do not have the capability to support the scientific work that needs to be undertaken to address the Strategic Research Agendas identified for the EU. Evidence of the benefits of a coordinated and integrated approach were provided by the FP7 funded MaRINET and subsequent H2020 funded MaRINET2 projects. Whilst these projects have very successfully delivered joint research to improve the quality of testing outcomes, a functional network, and a high demand access programme, a step change of considerable magnitude is now required in order to ensure delivery of the identified research agendas within Europe.

MARINERG-i will establish a modern, efficient, high-quality, state-of-the-art ecosystem with a highly effective cross section of members and stakeholders pre-eminently equipped to undertake cutting-edge research. The MARINERG-i network will include RIs where ocean and offshore wind energy technologies can be tested with varying levels of complexity across the the full range of TRLs (1-9). MARINERG-i members will be united to form a partnership of testing facilities with clear common foundational objectives and a highly evolved cooperation model. The MARINERG-i business and science plans will set out clear agendas, and define contingency procedures for adjusting them to future scenarios, ensuring the flexibility to adapt to industry needs and a growing membership.

In practical terms, the proposed MARINERG-i infrastructure comprises a central coordination hub located in Cork, Ireland, which is closely connected to a network of operational nodes located in eleven other European countries (consortium partners). Country nodes will act as hubs at national/regional level and coordinate activities at the local nodes (approx. 80 facilities). The know-how, capacities and experience of the whole organisation will support each node, while each site will develop specific competencies and learn from providing services adapted to user needs. In addition, each node is a gateway for access to the full set of integrated services and resources provided by the distributed infrastructure as a whole. The network will be perceived externally as a single body, with the critical mass to become the established reference at global level.

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[1] https://www.oceanenergy-europe.eu/wp-content/uploads/2017/03/TPOcean-Strategic_Research_Agenda_Nov2016.pdf

[2] https://etipwind.eu/

The purpose of this document is to describe the elements that constitute the Value Proposition of MARINERG-i, taking stakeholder perspectives into account. The engagement process has served to consolidate a common understanding of what the value proposition of MARINERG-i is, based on the perspectives of the consortium partners and re-inforced through the engagement process.

3. The MARINERG-i Value Proposition

3.1. Methodology

To be effective, the value proposition should impact and attract potential participants and users by connecting the goals of MARINERG-i to the solutions required by the sector, thereby clearly communicating the value added and benefits. It is a statement addressing the potential users and other stakeholders. It should be kept updated and fine-tuned over time, aiming to properly capture their needs and aspirations. It should catch users' attention and be direct, clear and easily disseminated. It involves solid elements that can be linked to the evolution of the goals and services of MARINERG-i, but it should also catch the intangible items assessed and captured through an active learning process. Therefore, the value proposition is based on the mission, vision and values, and links to the MARINERG-i business plan and user and other stakeholder experiences.

The approach taken in this document to update the initial value proposition has involved several actions to gather inputs from:

- Partners and potential nodes of the MARINERG-i distributed infrastructure, taking into account their previous experience with users and stakeholders.
- Studies of present and future users' needs, demands and the foreseen evolution of the sector.
- Stakeholders engagement activities as described in D7.6.

This information was used to build the initial value propositions and subsequently update it in line with the maturation and consolidation of the MARINERG-i structures, nodes, partners, facilities, and training of the personnel among other factors.

3.2. Definition

The core objective of MARINERG-i is to accelerate the development of the ORE sector to make it commercial and cost-competitive. MARINERG-i will help achieve this by providing coordinated and integrated services and scientific research that respond to short and long-term R&D needs of the industry and stakeholders in general. MARINERG-i will offer significant added value to the industry as a whole, and to the individual stakeholders as illustrated in Figure 1.

The MARINERG-i value proposition is defined in the following paragraphs:

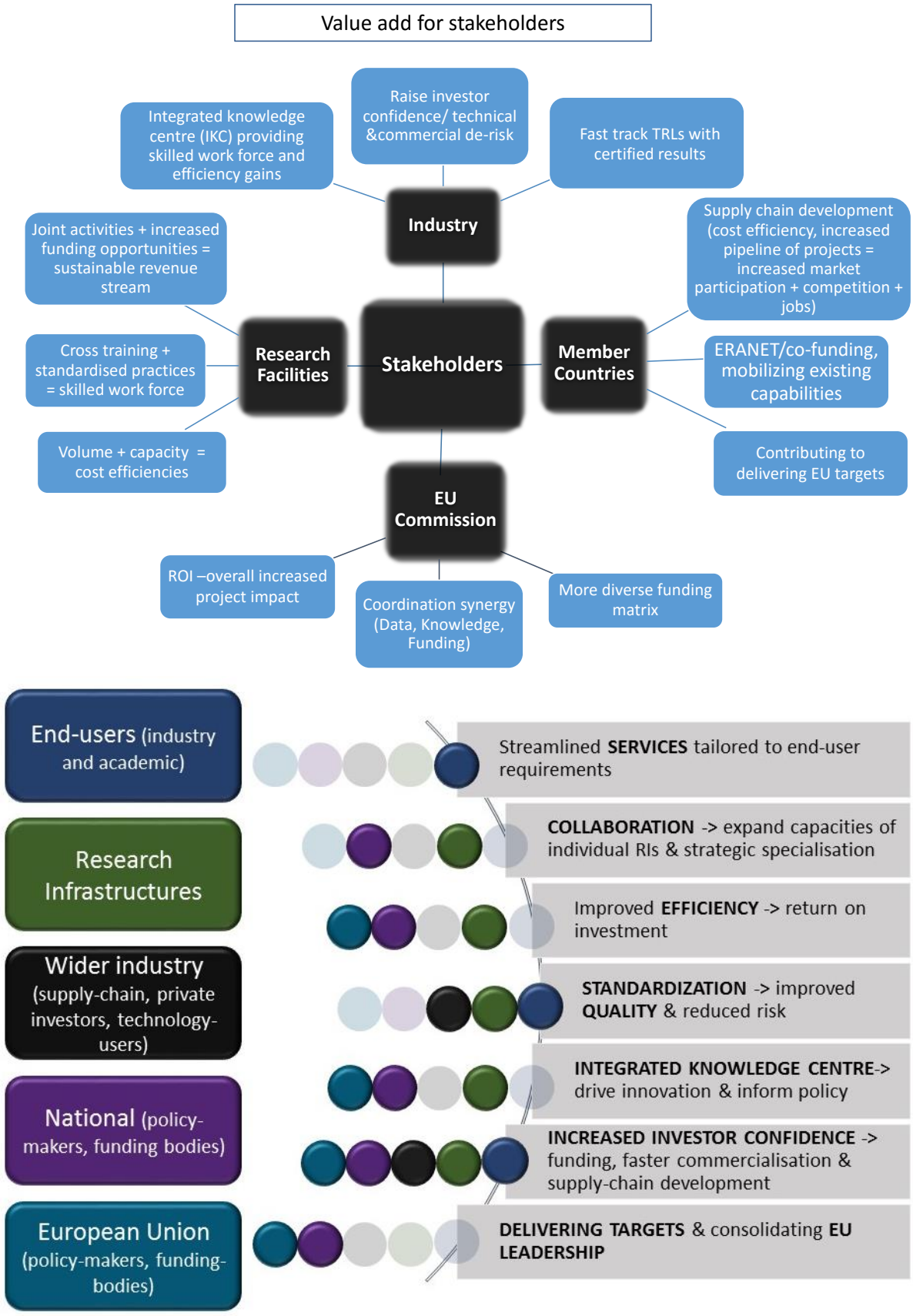

Figure 1: Added value for stakeholders

Streamlined services tailored to end-user requirements:

- Facilitate access to testing sites for technologies at every stage of development as well as provide objective information on the options and possibilities to ***help users make qualified decisions when applying for access to test facilities.***
- Offering mentoring and guidance on test processes and long-term plans will help users ***identify and solve potential issues earlier, accelerating development and innovation.***
- The collaborative, multi-disciplinary and comprehensive support will help users ***avoid or mitigate the wider barriers to implementing their products*** (legal, environmental, economic and social fields).
- The comprehensive support e.g. supplying information on the facilities, training requirements etc. will ensure users are prepared prior to reaching facilities, ***minimizing delays during testing.***

Collaboration -> expand capacities of individual RIs and foster strategic specialisation:

Critical mass provides synergies and access to opportunities unavailable to single entities/small groups, e.g.

- The augmented level of expertise and knowledge as well as shared scientific strategic objectives will build a ***stronger research capacity*** than is possible in isolation, as well as ***stimulating a focus on cutting-edge research and excellence,*** accelerating the development of the ORE industry.
- A more ***streamlined way to get customers and make best use of existing facilities.***
- Blueprints & targets for achieving common standards milestones provides ***incentive for improvement and efficiency.***
- ***Access to funding*** mechanisms not available or less likely to be successful individually.
- As the reference European ORE testing infrastructure, ***ability to inform policymakers and strategic agendas.***
- Standardisation and improved quality will ***build confidence in results and an international reputation via the MARINERG-i brand.***
- Simplified/regularised mechanisms in place for staff exchange that minimise administrative overheads/costs.
- Access to advanced metadata for data discovery and utility assessment. This will ***provide tangible metrics to leverage funding.***
- ***Advocate smart and regional specialisation*** amongst member facilities, influencing decisions at national/regional level about upgrading existing and building new infrastructures.
- ***Ensure funding and further development of facilities is applied strategically*** considering market capacity and needs across the EU.

Improved efficiency and optimised resources:

- MARINERG-i will facilitate a streamlined access experience that is ***smarter, simpler, and easier to use and navigate.*** The integrated service will ***reduce the administrative burden on RIs and users*** as well as simplify and ***minimise delays in the application process.***
- Collaboration will enhance and optimise the testing processes (e.g. application of best practice), ***reducing lead-times and testing durations.***
- The interaction between facilities and common strategic impetus will ***reduce time wasted in repeating work within individual facilities*** or “re-inventing the wheel” as participants will share experience and learning.

- Centralised coordination will ***optimise resources and maximise benefits*** for all e.g. efficiency in local business functions and processes such as joint tax free (VAT) tendering & procurement (equipment, services, insurance); better service from suppliers realised through collective bargaining power; increased visibility via joint dissemination and marketing; maximised re-use of publicly funded datasets etc.
- An integrated approach will help ***ensure the most expedient use of existing infrastructures.***
- The common portal and e-infrastructure will facilitate ***interoperability*** between infrastructures, and, with external interfaces, improve efficiency.
- The improved efficiency and optimised resources will ***maximise return on investment and impact in terms of KPIs*** (innovation, clusters, economic development, and jobs).

Standardisation -> improved quality & reduced risk:

- MARINERG-i provides ***an answer to the lack of standardisation among the European ORE test sites.***
- By ***establishing common best practices and quality guidelines***, MARINERG-i facilities will provide the ***optimal service and reduce risk*** throughout the technology development process and across the whole supply chain.
- The common standards will help ***guarantee comparable results*** across member testing facilities, facilitating interconnectivity and efficient progression between sites and through the TRLs.
- All the tests performed at MARINERG-i subscribed sites will benefit from recognition under the MARINERG-i brand. A certification/passport system will ***provide confidence to funding agencies and investors.***
- MARINERG-i will also develop ***novel methods and protocols for interaction and effective data exchange*** between laboratory and numerical models and field observations.

Increased investor confidence -> funding, faster commercialisation & supply-chain development:

- Consolidating infrastructure and expertise across Europe, MARINERG-i will offer the best quality service, ***increasing the confidence of investors/policy makers and acting as a magnet to attract further funding.***
- The project will provide ***tangible evidence of improved operation,*** backed up with occupancy KPI's and statistics. This will leverage further funding required for future development.
- Increased investor confidence will help ***fast-track industry uptake and the path towards commercialisation*** for developing technologies. It will also help kick-start and further develop the ***bespoke supply-chains*** required for this sector to reach full industrialisation.

Integrated knowledge centre -> drive innovation & inform policy:

- Create a ***cohesive scientific community*** run with core strategic objectives focused on improving services and ultimately enabling the development of the ORE sector.
- MARINERG-i will be the reference European ORE testing infrastructure, ***directly connected to the sector's industrial development roadmap.***

- Leveraging on its size, accessibility and visibility, MARINERG-i will be internationally recognised and will ***attract a great number of technology-based and academic researchers, technology developers and enterprises.***
- Provide strategic consulting with respect to the state-of-the-art and upcoming developments in ORE to national and European agencies, as well as industry stakeholders (organisations, consortia, joint ventures and companies).
- MARINERG-i will ***provide state of the art information and cohesive advice available from one EU-wide focal point.***

Inform EU policy and strategic goals, and consolidate EU leadership:

- MARINERG-i will both inform and act as a vector for research policies in ORE. It will be instrumental in developing a common understanding and ***achieving European strategic objectives and research agendas.***
- Through a fully integrated approach, MARINERG-i will act as a European hub for maturing technologies, ***affirming the European global leadership*** position in this sector and informing development of the international ORE market.

4. Conclusion

This deliverable presents a comprehensive definition of the MARINERG-i ERIC Value Proposition together with an account of how this has evolved during the project lifecycle. It charts the evolution of the proposition based on the initial perspectives of the consortium partners in Deliverable D7.2, and subsequent refinement based on feedback from continuous engagement with different categories of users and stakeholders as reported in D7.6 – Final Report on Interactions with Stakeholders.

This deliverable, together with D7.7 – Mission, Vision and Value Statement, provides a comprehensive foundation for the future ERIC, and a compelling argument demonstrating the added value that can flow from overcoming the drawbacks of being an isolated group of marine testing facilities across European countries, through the creation of an independent legal entity comprised of individual distributed testing infrastructure nodes, united to create an integrated centre for delivering ORE.