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Contact
Francesca Santoro – WP5 Leader Email: f.santoro@unesco.org

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1 Introduction

1.1 Purpose, method, and content of this report

The purpose of this report is to present the Sea Change roadmap for a more efficient science-society-policy interface to support ocean governance. The roadmap is the result of the work undertaken in task 5.3, and it builds on the consultation process with governance actors undertaken in task 5.2.

The main objective of Work Package (WP)5 was to research and develop effective tools and methods for establishing a science-society-policy interface (SPI), by using ocean literacy tools and approaches, in order to support policy-making and governance of the ocean in the most effective ways possible.

In order to do so it was important to understand the problems to be faced, and the issues at stake. For this reason, it was decided to consult directly those involved in the decision and policy-making processes. The main objective of the consultation was to understand what factors would lead to a change in the way science, society and policy work together to solve a marine issue.

It was decided to concentrate on marine litter, as one of the most pressing marine issues. G7 leaders acknowledged ‘that marine litter, in particular plastic litter, poses a global challenge, directly affecting marine and coastal life and ecosystems and potentially also human health’.

Descriptor 10 of the Marine Strategy Framework Directive (MSFD) focuses on marine litter, stating that Good Environmental Status (GES) is achieved only when "properties and quantities of marine litter do not cause harm to the coastal and marine environment". Finally, the first target of the Sustainable Development Goal (SDG) 14 focuses on marine pollution: By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.

The aim of the WP5 consultations was to depict, map and visualise governance issues and systems for Marine Litter, as they are perceived by governance actors using a technique known as Fuzzy Cognitive Mapping (FCM). FCM, in the governance consultations, involved governance actors in active, direct participation for Sea Change. Governance consultations in WP5 fostered social learning and understanding of the system ‘with’ governance actors rather than on their behalf.

A consultation protocol was developed (McHugh, P., Domegan, C. and Santoro, F. (2016) Sea Change Co-Creation Participation Protocol for Work Package 5 - Governance, EU Sea Change Project) with WP2 leaders, and a total of 15 governance actors from Belgium, Ireland, Portugal and Members of the European Parliament were interviewed.

The results of the analysis of the FCMs, together with the partners’ expert judgment, led to the identification of the four priority areas of action of the Sea Change Roadmap for Science-Society-Policy Interface (SSPI) in the field of Ocean Governance.
Subsequently, four scenario-planning workshops were organized to further develop a plan of action for each of the priority areas. The workshops were organized in Greece, Portugal, Belgium, and UK.

The results of the workshops were discussed amongst partners, and the final roadmap for SSPI in ocean governance developed.

The first version of the roadmap was presented at the Sea Change final conference, held in Paris on 15 February 2018.

After a first introduction on the current ocean governance challenges, and trends, the priority areas of action identified will be presented. For each of the priority areas of action, main specific actions are described, as well as the major stakeholders to be engaged for their implementation.
2. The Roadmap for Science-Society-Policy Interface (SSPI) for ocean governance

2.1 Background

In the Rio+20 declaration the ‘Future We Want’ the United Nations Member States stressed the importance of “the conservation and sustainable use of the ocean and seas and of their resources for sustainable development, including through contribution to poverty eradication, sustained economic growth, food security and creation of sustainable livelihoods and decent work, while at the same time protecting biodiversity and the marine environment and addressing the impacts of climate change”.

Unfortunately, despite the long list of initiatives and aspirations we are far from reaching the goal of ocean sustainability. Progress has been very limited in many of priority areas, some of which are new whilst others are emerging. Problems, for example, include the fact that very little of the world’s ocean is monitored or protected; coastal habitats continue to be lost or degraded; the majority of global fish stocks are under pressure; invasive species are expanding; hypoxic zones are increasing; the ocean is acidifying; sea level is rising. Technological advances and the impact of climate change, as well as increased intensification of human development have also driven major increases in the nature, and scale of challenges facing ocean and coastal areas. Ocean ecosystem services are being subjected to human activity that is having a measurable impact in reducing ocean health and productivity. A reduction can also be attributed to global climate warming that is increasing ocean stratification and reducing nutrient mixing, thereby reducing the natural productivity services that can lead to significantly diminished food security from fisheries, particularly in the warmer latitudes around the globe.

Scientists and societal actors have, in the last decades, contributed to an increased awareness of the need to face those issues, and to develop an appropriate and effective governance system to coordinate all the actions needed for ocean protection.

The ocean has entered the core agenda for international science and policy-making with the approval of the Sustainable Development Goal (SDG) 14, the first-ever UN Ocean Conference was organized in June 2017, and the first-ever UN Special Envoy for the ocean appointed by the UN Secretary General.

More recently, the United Nations has proclaimed a Decade of Ocean Science for Sustainable Development (2021-2030) to gather ocean stakeholders worldwide behind a common framework that will ensure ocean science can fully support countries in the achievement of the SDG 14 on the ocean.

The Decade of Ocean Science not only calls for increasing ocean knowledge, but it calls for a mobilization of more and better knowledge to secure and sustain improvements in human well-being. A transition towards ocean sustainability requires not just more knowledge but more “usable” knowledge (Clark et al., 2016).
The main challenge to achieve ocean sustainability is to govern the ocean space, integrating local and global knowledge in co-production with relevant stakeholders, in line with planetary needs and boundaries and international policies such as SDG14.

According to many scholars, aggregating pertinent knowledge on complex and interrelated coastal and marine socio-ecological system is the key for engaging with and developing appropriate governance systems (Leach et al., 2012; Future Earth, 2013). Facilitating the flow of information and knowledge from multiple sources, and its spreading at the decision-making interfaces are crucial for successful ocean governance. In our increasingly interconnected world, linkages between separate ocean governance actors from various sectors (e.g. fishers, resource users and managers, tourism operators, scientists, educators, NGOs and other actors) can create shared knowledge that enhances research and communication capacities, and mobilizes decision-makers to address problems at multiple levels.

A better capacity of collaboration amongst different stakeholders should, therefore, be created, but it should be acknowledged that stakeholders are diverse. Meeting the needs of particular groups will require tailored communication and engagement approaches, and context specific recognition of potential barriers for collaboration. Finally, it will be important to consider the challenges of competing cultures that can divide potential collaborations (McHugh et al. 2015).

These are the major elements considered in the Sea Change SSPI, i.e. actions, processes and approaches that can facilitate the collaboration and that can lead to knowledge co-production and exchange between all the actors of the current ocean governance system. Most of the usable knowledge urgently needed to meet the challenges of ocean sustainability is not produced only in laboratories and universities but also by grassroots organizations, and in the private sectors. It is, therefore, important to identify ways to consider all these multiple sources of knowledge. Institutions like science centres, or museums, and agencies like the media can provide the right mechanisms and spaces for these new types of knowledge production and exchange.

In this context, the challenge of ocean literacy, as a way not only to disseminate or promote ocean knowledge, is to join science with the emotional attachment to nature with the indispensable role of governance in connecting worlds of thought and action for the purpose of promoting ocean sustainability. The current ocean governance is characterized by the existence of new actors, institutions and processes. We observe the emergence of new approaches in ocean governance, which are particularly needed to tackle new and emerging ocean issues. There is a call for new mechanisms to close the knowledge-behavior-action gap. Here there is a clear role for ocean literacy in ocean governance as social and adaptive learning approach. Social learning implies the capacity to reframe major problems by incorporating values, culture and politics, and it can contribute an integrative function by enhancing network governance, alleviating uncertainty and building the structural conditions for governance. Developing and sustaining innovative approaches to ocean governance will require improvements in ocean literacy.
2.2 The goal of the SSPI for ocean governance

The goal of the Sea Change SSPI for ocean governance is:

- to identify the priority areas of action for a more effective ocean governance;
- to define the specific role of ocean literacy in facilitating the sharing and the co-production of ocean knowledge;
- to identify actors and stakeholders to be involved in the process;
- to link the identified priorities with the Sea Change Legacy Plan.

2.3 The priority areas of action

2.3.1. Increased level of ocean literacy to support action around Marine Citizenship

**STRATEGIC OBJECTIVE**

Most European citizens are not aware of the full extent of the medical, economic, social, political and environmental importance of the sea. Many of us are not aware of how our day-to-day actions can have a cumulative effect on the health of the ocean – a necessary resource that must be protected for all life on the planet Earth to exist.

In other words, European citizens lack a sense of “Ocean Literacy” - an understanding of the ocean’s influence on us and our influence on the ocean. Marine citizenship describes the rights and responsibilities of an individual towards the marine environment, which support the achievement of marine policy objectives at the national level. It is argued that marine citizenship requires an enhanced awareness of marine environmental issues, an understanding of the role of personal behaviour in creating and resolving marine environmental issues, and a shift in values to promote marine pro-environmental behavioural choices (McKinley and Fletcher, 2010; 2012).

**ACTION I: To develop an EU Marine Natural Capital program**

The Natural Capital approach is a new way of thinking that puts the environment and environmental assets at the heart of economic decision-making. The NCD (Natural Capital Declaration) is an international financial sector initiative on natural capital. Launched in 2012 at the UN Conference on Sustainable Development (Rio+20), the NCD secretariat is composed of the United Nations Environment Programme’s Financial Initiative (UNEP Fi) and the Global Canopy Program.
In a short term it is necessary to disseminate the Marine Natural Capital approach. The development of a marine natural capital tool does not need to be clear or evident to everyone, it would be sufficient for some areas of governance to be aware and enforce. Marine natural capital as a concept needs to be clearly defined and articulated to all as a starting point.

Working on a media level disseminating the concept and the necessity to include the value of marine ecosystems as a benefit for people and economy.


In a medium term working with key organizations as Natural Capital Coalition (https://naturalcapitalcoalition.org/) in order to develop a standardized tool for marine areas or activities, including the Ocean literacy concept.

In the long term the promotion of a Marine Natural Capital programme with a road map at EU level. All activities to be regulated by such Marine Natural Capital. Natural Capital indicates the value of many different aspects of the sea, so balanced planning decisions can be made.

The Regional champions for Marine National Capital has be IFCAs, Marine Management Organisations etc.

**ACTION II: Develop Educational Material**

Improving education and citizen awareness on the ocean contributes to more informed decisions and to a better governance of the sea. Ocean literacy includes all areas of knowledge, from biodiversity to geology, from climate science to technology. It addresses formal and non-formal education, involving schools, science centres, museums, etc. It leads to the production of resources and to a sustained presence in the media.

In the short term the general guidelines for Blue Schools - A Guide to Implementing the Blue School Concept Across Europe -, developed by Sea Change Project (H2020) will be available. These guidelines integrates the concept of “Blue Schools” and a time-scale implementation for a more ocean literate formal education.

The EMSEA members could be the responsible to work on the next two years (2019-2020) with School administrators/ Teachers Parents/ those interested in the Ocean/ Educators.

In the long term ocean literacy social positive changes will be assessed. An EU monitoring plan of formal and informal education and resources should be addressed.
Each EU member country should involve the educational Ministry on the implementation of more marine science and ocean literacy on the curriculum.

**ACTION III: Legal Framework and Requirements**

Integrating Marine stewardship into sea-use planning as a voluntary strategy that attempts to generate responsibility among users of the marine environment in terms of responsible use of natural resources and with an ecosystem focus.

In a short term create stakeholder governance self-enforcement groups. To create spaces of governance and new policy channels to involve citizenship on the local marine policy with the aim to initiate a debate about the role of individual citizens in resolving the challenges facing the marine environment that helps increasing the Ocean literacy of the citizenship. The current legislation and frameworks needs to be clarified and accessible to the people. This will allow the public to provide feedback and propose priorities for action.

Marine NGOs are the key organizations on creating these spaces and strength the links between politicians and the citizenship.

In a long term Marine legislation will be enforced from national and EU government levels working together with NGOs. The impact will cascade along a timeline so in the short term the changes would take place at national level and would be scaled up to European level in the long term.

National Governments are the responsible of increasing the culture of participation among citizenship.

### 2.3.2 Creating public engagement for open science and for sustainable marine policy through visitor centres

**STRATEGIC OBJECTIVE**

Visitor centres are key actors of public awareness, scientific communication and environmental education. Using all kinds of medium (through museography: visual and sound effects, hands-on activities, etc.), science centres trigger emotions and can call visitors to action. They are the physical places where society meets science and governance, where visitors can interact with explainers, scientists, maritime professionals and decision makers.

This link with governance and scientific knowledge exists in most visitor centres, but can be improved and strengthened to support the movement toward a more Ocean Literate society. The strategic objective of this area is to build capacity in visitor centres and ensure they are supported with relevant information so that they can better interact with all kind of audience and stakeholder (citizens, researchers, policy makers, maritime professionals and media), both as visitors and specific partners.
In this document, visitor centres are defined as interpretation centres at natural sites, science centres, natural history museums, aquariums and other similar institutions where the public can engage with natural sciences in person.

**ACTION I: Trigger emotion and empower people with opportunities for action**

Two key elements are identified in order to empower visitors to take action for sustainable marine policy: appeals to emotion and pre-identified opportunities for policy action.

Visitor centres have traditionally appealed to reason, as a means of engaging the public. Presenting science to the public in a clear and reasoned way remains a crucial method of ensuring the public are informed. But visitor centres are also valuable in their potential to appeal to visitors’ emotion, as well as reason. Topics around the Ocean often stir positive emotions – they may be associated with their childhoods, holidays, experiences with marine life, travel or food. By leveraging these emotions associated with the Ocean, visitor centres can open their visitors up to messages on caring for the Ocean, appealing to notions of stewardship, and better persuade them to take positive action as a result. This leveraging can be implemented through emotional messaging, visuals, sounds and interactives. Aquarium visits are good examples of the type of immersive experience that can appeal to visitors’ emotions.

The second element to empower visitors is to provide them with an opportunity to take action on relevant policy. By incorporating marine policy messages into the exhibitions of visitor centres or into publications, and for instance allowing visitors to experience certain consequences of undesirable behaviour (e.g. marine debris), the public will start to talk about it and understand why certain policy measures need to be taken. This deeper understanding empowers them to take action themselves, whether that is through voting, raising awareness among their peers, writing to their political representatives or taking part in participatory democracy activities.

**In the short term:** Visitor centres should reinforce their partnerships. On appeals to emotion, they already work closely with educators, artists and graphic designers. But there is room for improvement with regard to engaging with local communities to co-create immersive experiences that trigger positive emotions around Ocean topics. They can also foster interdisciplinarity, for instance by involving artists, sociologists, economists or psychologists. On policy messages, they should partner with marine policy-makers, educators, coastal initiatives and local communities to identify key opportunities for the public to be informed and take action. In some countries, coastal visitor centres can be a welcoming channel for marine policy information that is often centralised and being produced at a distance from the coast.

They should also collaborate more intensively, inform each other about activities and experiences in order to share good practices, information, techniques and experience among institutions. This sharing can take place on a number of levels: regional (through workshops such as those organised by the VLIZ and World Ocean Network), national and international (such as at the EMSEA...
Conference, the Ecsite Annual Conference and European and global events organised by the World Ocean Network.

**In the long term:** Specific training activities could be included in the formal curricula for the development of specific professional figures able to act at the interface between science, society and governance and develop specific programmes to be developed in science centres.

**ACTION II: Support the spreading of quality-ensured information in visitor centres**

To raise public awareness on sustainable marine policy, visitor centres must have access to reliable, high-quality scientific and governance information. These data and images must also be made accessible and understandable to the general public in a way which does not diminish the quality of the information they contain. This action is also necessary to ensure the successful implementation of Action 1.

The first step to ensure this requirement is to organise meetings, networking sessions so that marine policymakers, marine scientists and visitor centres’ content and education teams can share their respective experiences and perspectives. Networks of science centres (such as World Ocean Network, or Ecsite, both Sea Change partners) could help to foster dialogue between these stakeholders. Again, this can happen both at regional and national level through specific workshops, and at European and international level via professional networks such as WON, Ecsite and EMSEA as well as thematic networks on topics such as Ocean and climate. Sea Change partners hence commit to support this action of knowledge transfer through these different networks and thanks to all the tools developed within the project.

**In a longer term,** a platform or portal could be developed to share quality-ensured scientific and governance information. Marine policy makers are the most appropriate stakeholders to implement this action, with cooperation from visitor centres, researchers and other relevant civil society actors.

**ACTION III: Reach adults by involving children (12-14 years old)**

Children are a key audience for visitor centres as they attend in school time, as part of their science education, as well as in recreational time with their family. This provides two key opportunities to engage adults: first, children can act as scientific information relays towards their families and generate a change of behaviour at home; and second, that when children and adults are present at visitor centres, intergenerational activities can allow parents and grandparents to engage more deeply thanks to the children’s engagement.

When marine policy is being taken as the central message, children and their parents can be engaged in questions of why and how the seas should be protected (without blaming them for what goes wrong). If more focus is made on sustained interaction between the generations in their daily family life, marine policy can become a natural part of their surroundings.
Sea Change partners will continue to spread the tools develop within the project to foster intergenerational learning and empower children to act as relays.
2.3.3 Bringing ocean literacy in the circular economy debate

STRATEGIC OBJECTIVE

Ocean contamination by plastics and microplastics is becoming a massive problem with severe negative ecological impact on marine species and marine ecosystem services worldwide. Plastics and microplastics are evermore used in many different industrial sectors (e.g. packaging in the food, cooking and other industries, agriculture, buildings, vehicles, electronics), and can be found almost everywhere in our daily life.

Despite this, plastics are still produced and used under a prevailing linear economy strategy, in which just a very small part (6% in the EU) of the plastic wastes produced is recycled. The EU recognised recently that a change of plastic production and use into the circular economy is urgently required to overcome this challenge and ensure ocean and Earth environmental sustainability. The circular economy (CE) is set at maximising the efficiency of products, resources and raw materials. It is a restorative and regenerative system, valuing and protecting the natural capital. Ocean literacy principles are a valuable asset to address this problem by contributing to create a more knowledgeable society able to take rational informed decisions towards protection of the ocean and its resources.

Enhancing the science-policy interface has been identified as a crucial aspect to increase ocean literacy and raise awareness about plastics and their negative impact on the ocean.

ACTION I: Produce legislation promoting wider and sustainable implementation of the 7Rs policy, including control/supervision of implementation.

A large number of instruments at international, regional and national levels have been adopted to tackle marine litter problems. These instruments comprise conventions, agreements, regulations, strategies, action plans, programs and guidelines. They contain specific management measures that are either compulsory or voluntary. There are two basic types of instruments at the international level, in terms of their connection with regional or national instruments. The first comprises those, which are explicitly transposed into regional or national ones, usually in the form of regional agreements or national legislations. As for the instruments at the regional or national level that lack a clear link traced back to international instruments, they are devised by their own respective regional bodies or nations to deal with marine litter problems. These instruments usually consist of regional agreements, regional or national programs, legislations, or activities dealing with specific aspects of marine litter problems.

In order to promote the circular economy, and legislation that is encouraging citizens to be more active the 7Rs policy for sustainability (i.e. Recycle, Refuse, Reduce, Reuse, Repair, Re-gift, Recover) should be adopted and, ultimately there would be significantly less amount of plastics ending up in the ocean and later in time. Stakeholders to be involved would be high-level governance actors and decision makers related to ocean science and legal areas. The reason stated is that full and wide implementation of the 7Rs policy can only be achieved if it becomes an obligatory matter for citizens. Some regulatory measures already exist, but they are not sufficiently effective to reduce plastic inputs.
into the ocean. The legislation should be accompanied by the creation of adequate legislation imposing their adoption and associated control/supervision of law implementation. Expected outcomes of such a legislative framework would be a wide adoption of the Rs policy by the society in general, with higher environmental sustainability at the production level (e.g. using more recyclable materials, containing less harmful chemicals, and generating products more easily repairable or recovered) and consumer levels (e.g. increased reuse); increased valuation of capital on its various natures. The overall impact would ultimately be a significant decrease in inland, freshwater and marine contamination by plastics and microplastics.

**ACTION II: Increase actions at a more global level to disseminate the priority area of action, and the ocean, interacting with civil society**

People need to have more information about plastics, microplastics and their additives, plastic chemical contaminants; the health problems they can cause to humans, wildlife and the environment. Such actions and campaigns should be interactive, involving the civil society because this causes a stronger impression in people, improving understanding and better predisposing citizens to take sustainable action. Stakeholders involved in this scenario would be researchers, science centres and science dissemination institutions and the civil society. Specific resources should be directed to this sector promoting the creation of activities and supporting their implementation and wide dissemination. Expected outcomes would be the creation of more intelligent and well-informed populations, capable of meaningful communication about the priority area of action and refusing to use low value environmentally threatening products; an augmented public perception of our connection with the ocean; a change of attitude/behaviour towards avoid actions that may be detrimental for the marine environment its resources, endangering conservation of resources for future generations.

**ACTION III: Raise awareness of youth (future generations), involving parents and teachers**

Education of future generations can only be achieved through active involvement of all society groups and stakeholders, who should consistently motivate and support them in improving their scientific knowledge about the ocean and their daily life behaviour and attitude, so as to protect the ocean while benefiting from its resources. Expected outcomes would be a generation of leaders aware of their relation with, and impact on, the ocean, well-informed, able to protect natural capital and maintain its good status. The impact would be an increase on human health and social and economic well-being.

2.3.4 To increase the Ocean Literacy of the general public through increased “Ocean” related coverage in mainstream media

**STRATEGIC OBJECTIVE**

The concept of “knowledge societies”, according to UNESCO is based on four key principles - freedom of expression, universal access to information and knowledge, respect for cultural and linguistic
diversity, and quality education for all. This concept recognizes the crucial role of the media and information and communication technology in creating activities that will expand access to information, contribute to achieving the SDGs, and enable us to eventually bridge the ‘digital divide’, which is far more than a technological issue. The time has come for all policy actors to recognize and support the vital contribution of the media to help increase the awareness of the public on ocean issues, and to identify innovative strategies to disseminate scientific information and knowledge. The media can and does play a major role in developing public understanding of economic, social, and environmental dimension of ocean issues, and it can provide significant opportunities for people who have experienced poverty to have a voice and share their views. These include informing a wide range of audiences on ocean issues and providing an inclusive platform and an open forum to share the views and concerns of the citizens, and illustrate ways for them to become responsible actors of the current ocean governance system. In today’s era of new technologies, the media, particularly the internet and social media platforms, offer ever more opportunities. The new media is increasing rapidly and its potential is constantly being developed and modernized. The media plays a central role in informing the public about global, national and local events and is a powerful medium for shaping opinion and policy. Changes in national policies often come about after a sustained media campaign raising public awareness and causing national debates. High-quality public service and public service journalism in particular should be supported as public goods. Public interest journalism involves media content that provides citizens with access to information on key aspects of public life significantly affecting their well-being and involvement. Numerous examples exist to show how the media, including the widespread use of new technologies, have contributed to raise the attention of people and policy and decision-makers on sustainability issues such as climate change or marine litter.

The media are at the intersection of current and potential tools and innovations that can be used for a sustainable future. In order to do so it is vitally important to identify ways for both the journalists to have access to sound scientific information, and for scientists to become able to communicate to journalists in a more effective way.

**ACTION I: Organize an online questionnaire for Journalists**

Create an open-access query system whereby journalists can pose questions in relation to any given Ocean issue and obtain a timely response.

Very often, it is difficult for journalists to identify reliable sources of information, and easily get in touch with scientists. This query system would allow journalists to pose questions, and to identify suitable experts to address queries. In addition, the system would help to generate awareness of the offering through marketing and promotion so as to become the go-to system for Ocean related issues (links in press releases, redirected media enquiries, online promotion, etc.). A small number of influential journalists could be identified with varied specialist interest areas (e.g. marine, environmental, financial, human interest, print media and broadcast). Scientists could collaborate with these journalists to create marine-related stories and reach a wider audience via their reach and influence. Creation of the resource would have to be linked and have buy in from the scientific community and could be an outcome of Action 2.
ACTION 2: Organize a communication workshop for scientists

Scientists have the technical and scientific knowledge to be able to provide informed evidence-based decisions on specific issues. However, scientists are not always the best communicators and can struggle to get across their message effectively. There is also a risk of messages being misunderstood or misinterpreted by media and thus training on managing risk in media communication is important. Such training could be provided in modules such as:

- An Introduction to Science Communication (messaging, tools, channels, techniques, impact measurement, use of language,)
- Provide media training workshops to scientists with a specific focus on engaging effectively with media in various formats (media framing, presentations, radio, TV etc.).
- Develop a supporting tool-kit and best practice guide for effective communication
- Presenting compelling public talks about research and building a public persona
ACTION 3: Create a pan-European online repository for Ocean Science News

To ensure accessibility of relevant news as a basis for uptake by media groups, it was suggested that a pan-European online repository for ocean science content should be created, that can be easily accessed by the media and will provide science content to journalists. Such a platform would provide background information on the ocean breaking stories, photographs and interviews in accessed by Journalists on topics such as:

- Global warming
- Microplastics
- Overfishing
- Marine Litter
- A guide to simple actions to save the ocean

The platform could link into existing repositories and reference/link relevant content using web plugins to easily integrate functionality into a variety of web platforms. Sea Change partners would look to work with other networks to explore how a platform can be implemented.
Conclusions

An effective management of the ocean space will require an equitable and efficient participation of all stakeholders concerned. This, in turn, will require that all stakeholders have an “actionable” knowledge about ocean processes and ocean issues. This is one of the potential role of ocean literacy in the framework of ocean governance.

The consultation process undertaken in WP5 demonstrated that there is a considerable space for the experimentation of innovative modalities of knowledge co-production and exchange. Scientists, educators, journalists, policy-makers, and decision-makers, representatives of the private sector will have to find new avenues and opportunities to develop more efficient science-society-policy interface(s). Four priority areas of action have been identified, and actions to implement them described.

This roadmap, together with the Sea Change Legacy Plan will be the basis for Sea Change partners, the institutions and the networks they belong to, to continue the work started.
[Roadmap for effective science-society policy interface in the field of ocean governance]