



Summary of work with the ResponSEAbLe Ocean Literacy Think Tank (OLTT)



Deliverable 7.1

*ResponSEAbLe Ocean Literacy Think
Tank Setup and on-going work*

WP7





Summaries of the Ocean Literacy Think Tank meetings & discussions, consultation notes

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Introduction

The ResponSEable Ocean Literacy Think Tank (OLTT) was launched in May 2016 for strengthening the science-policy interface of the ResponSEable project. The first telephone conversations with OLTT members took place and in May 2016, several OLTT members attended the kick off OLTT session at the partner's annual meeting in Athens.

This deliverable provides a description of the work of ResponSEable Ocean Literacy Think (OLTT): rules and set up, schedule of proposed work. It contains details on current OLTT members and summaries of the discussions/contributions of OLTT members to the questions of the project, as outlined in the first consultation note. The deliverable also contains a description of process on how the OLTT members will continue working in the project and their involvement in the second part of the project.

Olga Mashkina & Pierre Strosser (ACTeon) are the facilitators of the ResponSEable Ocean Literacy Think Tank, who are responsible for the interaction with OLTT members and organization of the meetings/consultation processes, and management issues.



1. Objectives of the ResponSEable Ocean Literacy Think Tank (OLTT)

The Ocean Literacy Think Tank (OLTT) of the ResponSEable project is a group of 10 high-level representatives of the human-ocean system. The members of the OLTT come from different organizations representing:

- Stakeholders of the wider human-ocean system, e.g. representatives of economic sectors, organisations in charge of, and/or committed to, the protection of marine ecosystems;
- Stakeholders of the knowledge & literacy system, scientists, educators, professionals specialised in training and awareness raising for different target groups.

The OLTT aims at **guiding and steering the ResponSEable project** so it delivers high-quality and relevant results in a cost-effective manner. More specifically, the OLTT will:

- Provide **feedback and advise on the development and implementation of the project's activities**, e.g. facilitating access to knowledge, material and products of relevance to the "human-ocean" knowledge base developed by the project, supporting the identification of "multipliers" that might help reaching specific networks or target groups, advising on the communication and awareness raising activities of the project, identifying parallel initiatives with which to develop synergies;
- Provide feedback and advise on the development of **strategic and policy recommendations** on ocean literacy in Europe and at the Transatlantic level, including on opportunities for ResponSEable input into on-going strategic and policy discussions;
- Play a **role of relay with different communities and networks** addressing the issue of ocean literacy in Europe and elsewhere, e.g. identifying areas of collaborative work with others, interest for ResponSEable activities and products by specific networks, etc.;
- Contribute via its members (collectively or individually) to the **dissemination of the ResponSEable project ideas and results** to the different ocean literacy communities policy makers and stakeholders in individual Member States, at the European scale and worldwide.



2. The ResponSEABLE OLTT: working rules and foreseen activities

The OLTT will function from its official launching (May 2016) to the end of the ResponSEABLE project (May 2019), building on electronic communication means and the participation in workshops.

The launching of the OLTT will take place at the ResponSEABLE annual meeting in Athens (10th of May to 13th of May, 2016)¹. The launching of the OLTT will take the form of:

- Bilateral discussions with members of the OLTT to identify their expectations and individual demands, discuss the role of the OLTT and expectations vis-à-vis expected output;
- Dedicated OLTT sessions during the Athens meetings that will provide the chance for OLTT members attending the event to get introduced to the ResponSEABLE partners and project activities, and to contribute to specific working sessions contributing to the implementation of the project (on knowledge for OLTT, the assessment of the effectiveness of ocean literacy initiatives and the development of Transatlantic ocean literacy initiatives).

The meeting in Athens will also be the occasion for members of the OLTT to clarify and agree on the role and expected output of the OLTT.

To facilitate the work of the OLTT members, ACTeon will prepare **targeted consultation notes**: (1) presenting key progress in ResponSEABLE activities; (2) summarising issues on which feedbacks from OLTT members are expected; and, (3) proposing selected consultation questions aimed at guiding OLTT members' input.

The following table summarises the main interactions planned with the OLTT members throughout the life of the ResponSEABLE project. These will be complemented whenever felt necessary by targeted virtual web-conferences and bilateral discussions with individual OLTT members (on a specific approach proposed by ResponSEABLE, their interest to contribute to specific activities, the possible synergies between ResponSEABLE activities and other initiatives, the review of specific deliverables and articles produced by ResponSEABLE, etc.).

¹ This annual meeting is organised jointly with the sister EU-funded SeaChange research project addresses ocean literacy issues.



Step	Objective	How?	When
Launching the ResponSEable OLTT	Launching the OLTT, presenting ResponSEable project and the role of the OLTT, initiating first exchanges among OLTT members, collecting first feedbacks and suggestions on 1) ResponSEable Ocean literacy framework 2) the list of key storylines of the project.	Bi lateral exchange via electronic emails between ResponSEable coordinators and OLTT members, face to face meeting in Athens	May 2016
Progress meeting 2	Follow the progress of the ResponSEable project, in particular discussing the progress with the Knowledge Base and development of six storylines of ResponSEable (outputs of WP1, 2, 3), regionalization of the key storylines (WP4), following the process of ocean literacy products via living lab approach (WP5), and identifying multipliers (WP6).	Electronic Meeting to present the progress of ResponSEable	September 2017
Progress meeting 3	Review of ResponSEable results, products of ocean literacy and recommendations Overall review of all ResponSEABLE results and of their relevance to possibility of behavior change and assessment of efficiency of Ocean literacy Review of the results of the effectiveness assessment of ocean literacy products developed by ResponSEABLE	Meeting, back-to-back with ResponSEable's annual meeting	September 2018
Final meeting	Overall evaluation of ResponSEable Evaluation of the role of the OLTT (did we fulfill our objectives? How differently could we have worked together) Identification of key questions that require additional research and efforts Support the dissemination of the final results and deliverables of the project	Meeting, back-to-back with the ResponSEable annual meeting and final ResponSEable conference	May 2019

The ResponSEable OLTT is comprised today of 10 members representing a diversity of European and international stakeholders and organisations, as summarised in the following table. As ResponSEable activities further develop, it is expected that additional stakeholders will join the OLTT, be it as permanent members or as ad-hoc members (because of the issues discussed by the OLTT, and the importance of liaising with specific parallel initiatives). The OLTT discussions and



meetings are also open to the European Commission (DG RTD and DG ENV), sister projects SeaChange and AORAC, who will act as observers.

The OLTT is chaired by a researcher from ACTeon who plays the role of facilitator and who is responsible for the timely implementation of the OLTT contributions.

	Name	Organization
1	Francesca Santoro	UN Ocean/UNESCO Ocean
2	Steve Fletcher	UNEP- WCMC
3	Linwood Pendelton	Duke University
4	Paul Snelgrove	Memorial University
5	Monika Stankiewicz/ Marta Ruiz	HELCOM
6	Camiel Derichs	Marine Stewardship Council
7	Pim Visser	VisNed
8	Gail Scowcroft	COSEE
9	Guy Herrouin	Pôle Mer Méditerranée
10	Ingo Sartorius	EU Plastic producers

Annex 1 contains short biographical sketches of the OLTT members



3. Working with Consultation notes

As was indicated in the previous section, the work with OLTT is based on consultation notes. Each consultation note summarizes specific issues on which feedback from OLTT members is expected, complemented by a series of consultation questions that will guide OLTT members' feedbacks. An open question is systematically included for collecting wider reactions and suggestions from the OLTT Members.

The answers to these questions, along with additional input and suggestions made by the OLTT members, will then be 1) summarised, 2) shared with all OLTT members, and 3) discussed with ResponSEABLE partners so they can assess their implications and propose, whenever relevant and possible, adaptation in the research protocol, the delivery of specific output or the timing of delivery.

In the first consultation note we focused the questions about:

- I. Added value of ResponSEABLE project
- II. Existing initiatives to link with
- III. Personal interest in ResponSEABLE Key Stories

As there are many initiatives in Europe (at different scales – from the local scale to the European scale), in the US/Canada and in other continent that are addressing the multiple facets of ocean literacy, establishing links and synergies with these initiatives is important for ResponSEABLE and for others – e.g. to share knowledge mobilised to develop ocean literacy, to develop common protocols (for developing, implementing and evaluating) ocean literacy initiatives, to identify lessons, recommendations and “factors for success”...Thus, the OLTT could help ResponSEABLE in linking with such initiatives (projects, networks, working groups...), e.g. by: informing on these initiatives and putting in touch with their coordinators; contributing to the dissemination of ideas/deliverables to these initiatives; contributing to events (of ResponSEABLE, of other initiatives) with presentations.



The first consultation note had the following 8 questions:

Question 1	From the elements summarised above, and the proposal sent to you, what would be from your perspective the main added-value of ResponSEable?
Question 2	Which other issues, principles and key questions could we address (within current organisation and resources) that would increase ResponSEable's added-value?
Question 3	Which other main initiatives (what/by whom/where) could ResponSEable link to?
Question 4	How could OLTT members support us in establishing links and synergies with these initiatives?
Question 5	From your own (European?) perspective, are there specific key stories missing from this list? Why – and which ones?
Question 6	Are you currently involved in activities (be it a research/educational project/policy initiative/or public awareness campaign) that relates to the ocean literacy or these particular key storyline? If yes, which ones – and how could we link to them?
Question 7	Are you planning, or aware of, workshops and events dealing with the above key storylines? If yes, could you specify the focus, the expected audience, the date of the event, link to the website? And how could we contribute to these events most effectively?
Question 8	Would you be interested in “being in touch”, providing guidance, or being informed o our work with a particular storyline? If yes, which one?

Annex 2 contains the answers of the OLTT members to these questions.

4. Participation of the OLTT members in activities of ResponSEable

OLTT members take part in the work of the project and are involved in the following activities:

1. Each key story has a ‘patron’ from OLTT who is kept in touch by the key story leader. OLTT members proof read the texts and provide comments.
2. Contributions to the Responseable Ocean literacy blog: <https://responseable.exposure.co/> (i.e. Linwood Pendelton’s blog post about communicating simply about a complex ocean ecosystem: <https://responseable.exposure.co/communicating-simply-about-a-complex-ocean-ecosystem>)
3. Taking part in ResponSEable partner meeting and in the EU workshop in Jurmala. EU workshop In Jurmala was attended by three OLTT members (Steve Fletcher, Kari Stange, Ingo Sartorius). Important contributions were made by OLTT members on:
 - Behavioral/emotional/theory of change input (Steve Fletcher),
 - Input on consumers and fishermen, and interest to continue working to develop the ocean literacy products with the project and the issue of behavioral change (Kari Stange).
 - Perspective and messages about the use /waste of plastics from the plastic industry (Ingo Sartorius): plastic is too valuable to waste – gave another perspective and led to discussions on how to position the messages to and from industries.



4. In the ResponSEAbLe regional workshops:

- Baltic workshop:
 - Marianne Wenning (EU Chairperson of HELCOM): The Baltic sea is located down-stream while economic activities are upstream – this means that eutrophication of the Baltic Sea does not directly affect economic operators up-stream. The economic effects due to lower environmental status will not be on farmers as eutrophication of the Sea will not impact them up-stream. There needs to be clearer communication about the costs-benefits of the reduction of eutrophication.
 - Sanni Turunen (PA NUTRI) brought up some ideas for future work with agriculture and consumers. The key issue still is on how do we reach the right target groups on policy and implementation level; how to promote the implementation of solutions and actions by different sectors. PA NUTRI works very closely with HELCOM.

- Mediteranean workshop:
 - Hugo Blanchet from Pole Mediteranee introduced their activities in the wrea of microplastics and awareness raising - Baseman, Simplex, InfoPARcs, ARTREEFS –provided inspiration for future work in the area of ocean literacy and coastal tourism in the Mediteranean.

5. Future involvement of the OLTT members in the project

In the second part of the project, the involvement of OLTT members will continue as outlines in the first part of the current document and will be mainly focused around the following:

- ✓ Engagement with the second series of regional workshops
- ✓ Involvement in product development
- ✓ Assisting the partners with visibility of ResponSEAbLe, connecting with multipliers

The involvement of OLTT members is foreseen in attending and contributing to the second series of the regional workshops, electronic conference of the OLTT in September/October 2017 as well OLTT session at the partner's meeting in September 2018.

Second consultation note will be produced (in October 2017) which will be focused around the ResponSEAbLe products of ocean literacy, multipliers and behavior change. The input of OLTT members will be registered and transferred to the Product Group leaders. Work with OLTT in 2017-2019 will be more focused on the production of particular products in relevant regions and Key Stories.

ANNEXES

Annex 1. List of members of Ocean Literacy Tank

Paul Snelgrove

Memorial University of Newfoundland

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Dr. Snelgrove is a Professor of Ocean Sciences and Biology at Memorial University of Newfoundland in Canada. Since 2014 he has been Director of the NSERC Canadian Healthy Oceans Network, a national research network in Canada that has already trained some 100 students working on all 3 of Canada's oceans to develop new tools and approaches to support sustainable oceans. From 2003-2013, Dr. Snelgrove held a Canada Research Chair in Boreal and Cold Ocean Systems, and prior to that an NSERC Industrial Chair in Fisheries Conservation. He recently led the synthesis of the International *Census of Marine Life* research program, where

he was a member of the program's Scientific Steering Committee. Dr. Snelgrove published the book "*Discoveries of the Census of Marine Life: Making Ocean Life Count*" with Cambridge University Press in 2010 and was a TED Global speaker in 2011. He was awarded the 2013 Timothy Parsons Medal for Excellence in Marine Sciences in Canada. He sits on the editorial boards of 5 international journals and has reviewed hundreds of manuscripts and proposals for a wide range of international journals and funding agencies around the world. He is frequently called upon as an expert panelist in Canada, and US and Europe, and has been an invited plenary speaker at meetings around the world.

Francesca Santoro

IOC-UNESCO

E-mail: f.santoro@unesco.org



Francesca Santoro is Programme Specialist at the Intergovernmental Oceanographic Commission (IOC) of UNESCO. At the IOC she is in charge of the ocean literacy activities. She previously

coordinated the setting up of the Tsunami Early Warning System for the North Eastern Atlantic, Mediterranean and connected seas. She holds a MSc in Environmental Sciences, with a specialization in Marine Sciences, and a PhD in Analysis and Governance for Sustainable Development. Before joining the IOC in 2011, she was lecturer at the PhD Programme on Science and Management of Climate Change of University Ca' Foscari of Venice. Previously she collaborated with several research centres such as the Italian National Council of Research, the European Commission Joint Research Centre, and the Centre for Integrated assessment and Sustainable development of the University of Maastricht.



Linwood Pendleton

DUKE University

Email: linwood.pendleton@duke.edu



Linwood is an American environmental economist and a Senior Scholar of Ocean and Coastal Policy at Duke University's Nicholas Institute for Environmental Policy Solutions. Pendleton served as the Director of Ocean and Coastal Policy for the Nicholas Institute from 2009-2013, and now focuses his time on international initiatives including projects focused on marine ecosystem services, ocean acidification, blue carbon, and deep sea management. Pendleton was the Acting Chief Economist for the National Oceanic and Atmospheric Administration (NOAA) from 2011-2013. Pendleton is currently an Adjunct Associate Professor at the Duke University Marine Laboratory, part of the Nicholas School of the Environment. After a first stay in 2014 as a LabexMER visiting professor in Brest, he was recruited in October 2014 as the Labex MER International Chair of Excellence for Marine Ecosystem Services within the Centre for the Law and Economics of the Sea (AMURE) at the European

Institute for Marine Studies (IUEM - University of Western Brittany).

Marta Ruiz

HELCOM

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Marta Ruiz is Associate Professional Secretary of the Baltic Marine Environment Protection Commission (HELCOM). Before joining HELCOM in May 2013 as project staff, Marta was in charge of the Technical Secretary of the Spanish Technological Platform for the Protection of the Coast and the Marine Environment (2011-13). She worked as technical advisor on marine pollution issues both in the Spanish Ministry of Public Works (2010-11 & 2006-08) and in the private sector (2008-09).

Both Marta's MSc and PhD are in the field of marine sciences as well as her postdoctoral stay at the Technical University of Crete (2004-2006).

Gail Scowcroft

University of Rhode Island/COSEE

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Gail Scowcroft is the Associate Director of the Inner Space Center at the University of Rhode Island Graduate School of Oceanography, an international facility for ocean science research and education. She is the Executive Director of the *Consortium for Ocean Science Exploration and Engagement* (COSEE). Initiated with funding from the National Science Foundation (NSF), COSEE is now one of the largest global networks of ocean science research and education institutions. Gail is also principal investigator (PI) and Director of the NSF funded Alliance Office for the *Climate Change Education Partnership*, a network of U.S. climate change education

programs. She is the PI for the NSF funded *Marine Technology for Teachers and Students* program, which engages teams of high school teachers and students with cutting edge research and communications technology. She is currently serving a four-year term on the U.S. Ocean Research Advisory Panel, the federal advisory committee established to provide independent advice and guidance to the Cabinet of the President of the U.S. For the first 18 years of her career, Gail conducted ocean science research focused on climate reconstruction and global climate change. For the last 20 years, she has directed ocean and climate science education programs. Gail is an international leader in ocean science education, lecturing across the globe on ocean science and climate change issues.

Guy Herrouin

Pôle Mer Méditerranée

E-mail: gherrouin@orange.fr



Consultant-Expert for Pôle Mer Méditerranée

Diplomas: Ingénieur du Génie Maritime (1967), Master in Physics Science. Degree in economics science University Panthéon Sorbonne. Between 1969-1983 Guy was working as engineer, at Bertin Company, a contract research organization in different fields. R&D projects of high speed surface crafts, then technical manager. From 1983 to 2006 Guy was part of Ifremer, French Institute of Research for Sea Exploitation, as a Director of Engineering, technology and computer science division, with 300 engineers and technicians and Director of Mediterranean Ifremer plants. From 2005 he has been among the founders of Pôle Mer Méditerranée. and a Consultant for DCNS Company to study new areas of high potential activity such as marine renewable energy (2006-2008).

From 2008 he has been a Consultant-Expert for Pôle Mer Méditerranée (maritime cluster) for industrial-research association for competitiveness in the sea activities: energy, environment, bio resources, ecological engineering, instrumentation...



Dr. Ingo Sartorius

PlasticsEurope

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Managing Director at **PlasticsEurope**. Ingo has a PhD in chemistry from the Technical University Brunswick. In 1995: CES, Consulting Engineers Salzgitter GmbH. Since 1996: Verband Kunststoffherzeugende Industrie e.V. (PlasticsEurope, Association of Plastics Producing Industry)

From 2008 Ingo has been a Managing Director of the Section Plastics and Environment and since May 2012 he became a Managing Director for Consumer and Environmental Affairs.

Steve Fletcher

UNEP-WCMC

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Steve leads the Marine Programme UNEP-WCMC in its work to support the integration of biodiversity considerations into marine policy and practice. To achieve this, the Marine Programme focuses on developing and maintaining global marine biodiversity datasets and supports enhanced marine policy-making and decision-processes through testing new approaches, sharing effective practices, and capacity building. Prior to joining the Centre, Steve was Director of the Centre for Marine and Coastal Policy Research at Plymouth University, where he retains an Associate Professorship in Marine Policy. Steve has an inter-disciplinary background, with a PhD in marine policy and an MSc in integrated coastal management. His

personal expertise includes marine conservation, marine planning and management, marine policy analysis, marine ecosystem services assessment, and community engagement in marine governance.



Camiel Derichs

The Marine Stewardship Council

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Camiel Derichs is the Regional Director in Europe for the Marine Stewardship Council (MSC). He's been leading the development of the MSC program across Europe since May 2013. Before being appointed to this role, since 2005 Camiel served in a variety of other roles in the MSC. Setting up several regional offices in Netherlands, Sweden and working both with the technical development of the fisheries standards, as well as with actors in the supply chain on topics such as CSR and sustainable seafood procurement policies, as well

as sustainable seafood marketing. Before joining MSC, Camiel was working in the Multi-National Financial conglomerate, ING-Group as a product manager. He holds a BSc and MSc from Erasmus University Rotterdam (Netherlands) in Business Administration, and a MSc from Tromso University (Norway) in International Fisheries Management.

Pim Visser

VisNed - National Association of Producer Organisations in Dutch Fisheries.

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Chief Executive VisNed. Pim has studied at the Nijenrode Business School BBA (1978) and the Rotterdam School of Management MBA (1981). Pim Visser started his career in the IT Consultancy from 1981 to 1982. From 1982 to 2002 he worked at Projects and Sales in Shipbuilding for the Dutch and International Fishing Industry. Since 2002 Pim Visser is manager of Manager Fish Auctions Northern Holland. In that capacity he was president of EAFPA (European Ports and Auctions 2004-2010). Now Pim Visser combines (now part-time) management of the fish auctions with several positions: Chief Executive VisNed, association of Dutch Producer Organisations (2010-now); Member North Sea AC Ex Com (2004-now); President of EAPO (European Fish Producer Organisations 2014-now)



Annex 2. Summary of answers to questions of the first consultation note

Question 1. From the elements summarised above, and the proposal sent to you, what would be from your perspective the main added-value of ResponSEABLE?

- To help interested parties (e.g. scientists, decision makers, enterprises, etc.) **identify, navigate, conceptually organize, and communicate the current knowledge** that informs the understanding of how human actions impact the ocean ecosystem and how these impacts, in turn affect people. ResponSEABLE should be the knowledge foundation that other ocean literacy efforts, NGOs, governments, and other knowledge brokers use to ground their messages in evidence-based science (Linwood PENDELTON)

- The main added value is to **raise the profile of behaviour change strategies in the delivery of marine policies to deliver the conservation and sustainable use of marine and coastal ecosystems.** (Steve FLETCHER)

- The **interconnection between the spheres of the “ocean knowledge”, the “smart and sustainable (ocean-related) market economy” and the “ocean knowledge system”.** Comparing approaches and experiences in ocean literacy on both sides of the Atlantic ocean (EU, US, Canada) (Guy HERROUIN)

- It is an ambitious project which addresses very different topics in the stories to develop. It will **show that changes are possible thanks to well informed attitudes.** In order to succeed the project needs to ensure that a thorough compilation of ongoing initiatives is conducted, and that target groups are properly identified. **The development of innovative tools** could be one of the added values from ResponSEABLE. (Marta Ruiz)

- Awareness raising through education measures is important to invest into the future early enough. ResponSEABLE offers wider acceptance to the concerned and relevant stakeholders. ResponSEABLE should take the opportunity to offer a dialogue platform for the diverse stakeholders, bring the necessary expertises together and derive conclusions and measures for information and education, derive conclusions for further action. (Ingo SARTORIUS)

- The main added-value of ResponSEABLE could be a **greater understanding of what helps to change people’s behaviours, attitudes, and thinking in respect to the ocean and coastal environments.** Ocean literacy initiatives have mainly focused on increasing people’s scientific content knowledge with the assumption that if individuals are more ocean literate, they will make better decisions about how they use ocean resources, their impacts on coastal ecosystems, and support for ocean related policies. There is little known about the effectiveness of ocean literacy programs in changing people’s behaviours, attitudes, and thinking. There is even less know about how these changes are actually affecting coastal and ocean environments. If ResponSEABLE can achieve its goal **to gain greater understanding of opportunities and pre-conditions for “change in behaviour”, the next key questions would be, “What are the results of achieving this goal?” and “What are the impacts?”**(Gail SCOWCROFT)



- Certainly getting people to really care about changing oceans would be tremendously valuable if ResponSeable can achieve it. The key piece identified in the objectives will be to change behaviour, in that **may people SAY they care about the oceans but few people change their behaviours in ways that help**. The other value added that ResponSeable brings is the capacity to **bring together truly diverse stakeholders**, since the network has a greater likelihood of attracting a wider range of stakeholders than an initiative more focussed on natural science could. This leads to a final point –that ResponSEable might think about what their Holy Grail would be...perhaps it is that the **network would like to be recognized as THE “go to” source of information on changing oceans and humans, or perhaps demonstrably THE organization best able to alter human behavioural patterns on ocean use**. (Paul SNELGROVE)

Question 2. Which other issues, principles and key questions could we address (within current organisation and resources) that would increase ResponSEable’s added-value?

- You should consider how to make sure **ResponSEable has a life after the project**. What business model will keep the knowledge foundation growing as well as the number and types of users. (Linwood PENDELTON)
- ...it would be great if the project could showcase **how governments could take up the findings of the project to support them to achieve national and international policy goals**, such as the sustainable development goals, through the targeted application of behaviour change strategies. It would be particularly great that for each storyline there was an analysis of which policies and targets would benefit. My view is by **proving the link between behaviour change and policy delivery will motivate the wider uptake of OL** as a pathway for policy delivery. (Steve FLETCHER)
- The Marine Strategy Framework Directive (MSFD) is, up to now, known only by specialists : few people know and the economics sectors don't embeds this directive in their activities. From our experience (maritime cluster) **several marine economics sectors (marine transportation for example), are not aware of this important directive**. The main reason is the process to achieve the objective is very complex and unclear. (Guy HERROUIN)
- It may be interesting ensuring that **lack of 'change in behaviour' is due to the lack of knowledge** when identifying the target groups to approach in each of the stories to develop. This is crucial to scope the stories and also to guarantee the efficiency of the project. For example for the eutrophication story, possible target groups could be:
 - Farmers and advisers – promote agri-environmental measures. Although this has been done in many projects in Finland and Sweden and there has also been a Baltic wide project, it only reached a limited number of farmers and advisers.
 - Consumers – Baltic Sea friendly diet. This is a target group that has mostly been neglected. Some small guides on this have possibly been made but they have not gain so much interest. It is a controversial issue because meat consumption should be addressed. Equally controversial is recycling nutrients from municipal waste water to food production. For the ballast water & fouling story, possible target groups could be owners of small ships (through associations). (Marta Ruiz)
- **Important stakeholders in addition to knowledge providers, brokers and the public are the users of knowledge**. These are in the context with the water media and the ocean: fisheries, shipping (transport, touristic, leisure, etc.), off-shore, marine researchers, control administration, harbor authorities etc. It is important that these stakeholders achieve sufficient knowledge, too. These should be either tackled in the current project or, at least,



as an outlook derived from the conclusions of the current project tasks. ResponSEable could develop appropriate education measures e.g. workshops etc. for these stakeholders. (Ingo SARTORIUS)

- It seems a key challenge will be to actually quantify whether the network has met the objectives outlined for the project. The first two objectives are most easily documented through deliverables but how can one say when behaviour has changed? Thinking about metrics of impact might be worthwhile to ensure the desired impacts have been achieved by project end. One other aside – I do not have a sense that graduate students are at the forefront of the network and perhaps that is just the way the program is organized, but if there is a strong cohort of students involved they can make great ambassadors! (Paul SNELGROVE)

Question 3. Which other main initiatives (what/by whom/where) could ResponSEable link to?

- ResponSEable should be in touch with **COMPASS Online**. <http://www.compassonline.org/>, Also **U. Maine's Concept Mapper** (<http://cosee.umaine.edu/tools/cmb/>). Of course, ResponSEable should be connected to the **Marine Ecosystem Services Partnership** (knowledge base) which is expanding to include GRID Arendal. (Linwood PENDELTON)
- UNEP-WCMC is working on several project proposals related to OL but as yet nothing active. Linking to the **#oceanoptimism** movement might be useful – through Zoological Society of London is probably best – contact name is **Heather Koldeway**. (Steve FLETCHER)

In France a recent program (2015-2016) was launched as part of the "Future Investment Program" on preservation and restoration of biodiversity.

- Several interesting projects (market oriented) were selected on citizen biodiversity observation systems (crowdsourcing with smartphone and others systems, virtual representation of ocean life, etc.) Pole Mer Méditerranée know very well several of these projects. (Guy HERROUIN)

- Which other main initiatives (what/by whom/where) could ResponSEable link to? Please find below several suggestions regarding the different stories to be drafted: (Marta RUIZ)
- Story 1 on microplastics in cosmetics: the international campaign against microbeads in cosmetics 'Beat the microbeat'; on activities developed by the GPA such as this video on marine litter addressing also microlitter.

- Story 2 on eutrophication: Past projects

Baltic Deal project (2011-213) gathered farmer and advisory organizations around the Baltic Sea to raise the competence concerning agri-environmental practices and measures. The aim was to support farmers to reduce nutrient losses from farms, with maintained production and competitiveness with the help of knowledge exchange and advisory. www.balticdeal.eu

Ongoing projects

In Sweden, Focus on Nutrients project offers advice that is free of charge to the farmer. The purpose of the project is to reduce emissions of greenhouse gases and



nutrient leaching as well as to ensure a safe use of plant protection products. Focus on Nutrients started in 2001 and currently has more than 8000 members.

<http://www.greppa.nu/om-greppa/om-projektet/in-english.html>,

<http://www.greppa.nu/download/18.37e9ac46144f41921cd1d91f/1402565317524/Focus+on+nutrients.pdf>

In Finland, Järki project offers agri-environmental advice to farmers. Lately they have been also focused on enhancing nutrient recycling. <http://jarki.fi/en/node/62>

• Story 6 on ballast water: the GloBallast Partnerships Programme, which among other things developed the 'Invaders from the Sea' video in cooperation with the BBC.

- You are cordially invited to visit our stand at the international plastics trade fair in October 2016 in Düsseldorf at Hall 6, stand C40. On 22st October 2016, the theme day will be dedicated to marine litter. There will be presentations of key stakeholders and a dialogue forum in a panel discussion (Ingo SARTORIUS)
- ResponSEable could develop closer ties to **the COSEE network**, which has transitioned from a U.S. network to a global consortium in 2015. COSEE has co-sponsored two global ocean science education workshops (2015 and 2016) and will sponsor a third one in 2017. The 2016 workshop brought together scientists, education professionals, policymakers, and business leaders at UNESCO headquarters in Paris. Connections could help ResponSEable to share knowledge gained. As Executive Director of COSEE, I could help with this. (Gail SCOWCROFT)
- ResponSEable has wisely tried to link with a range of other groups spanning social and natural science and also governance. I think the most urgent challenge is to make sure the niches of Sea Change and ResponSEable are clearly defined so that their respective roles are clear not only to each other but also to outsiders who may perceive the two as similar. The clarification of that link will also help when aligning under AORAC and seeing what sort of niches exist within Europe (e.g. with the recently funded ATLAS and SPONGES programs. Ideally ResponSEable might be a major opportunity for their outreach and they could be a major source of material for your story lines (Paul SNELGROVE)

Question 4. How could OLTT members support us in establishing links and synergies with these initiatives?

- **Having suitable materials** (and links to the online versions) would be helpful, as would a couple of PPT slides summarising the project that could be integrated into existing presentations. -Steve FLETCHER
- OLTT members may be able to **provide contacts with representatives** of these initiatives, and also contribute to the dissemination of the results of the ResponSEable project to their possible extent. - Marta Ruiz
- Our pan-european organization pulls plastics related topics around marine litter in a task force together, be it in our European group in Brussels or in our German expert group in Frankfurt. We tackle issues around plastics, plastics waste and microplastics. But the topic about the marine environment needs a broad approach of many related stakeholders and of many different industry branches, customers, appliers, consumers, authorities and many more. Therefore, our industry scope is inherently limited. **ResponSEable could act as a platform to bring the diverse stakeholders on a broader scope together.**- Ingo SARTORIUS



- Of course some of us are linked to these other initiatives and can help to form bridges. For example, I mentioned ResponSEable to **the AORAC discussion of an ecosystem approach to ocean use**. There might also be value in identifying what sorts of material that OLTT members could provide to help ResponSEable, for example expertise or images/ideas on sustainable oceans that you could use. For example, if you wanted to **include podcasts on your website you could interview OLTT members on specific areas** that might be of interest to the consortium or its target audience (Paul SNELGROVE)

Question 5. From your own (European?) perspective, are there specific key stories missing from this list

- It would be great if ResponSEable could develop an approach that **future practitioners could use to determine which parts of a story are critical for communicating an OL storyline and how much science is needed to support that story**. This would be similar, in approach, to the **TRIAGE** we developed for focusing Marine Ecosystem Service Assessments. - Linwood PENDELTON
- There are two issues I would raise here. First is that the project is a **great opportunity to show governments how behaviour change strategies can support national and international policy ambitions and the achievement of targets**. However, at present, the storylines are somewhat disconnected from their policy context. It would therefore be great to see explicit statements presenting which policy commitments or goals the invocation of a behaviour change strategy would help to deliver within the context of each storyline. Second, one of the biggest problems in the EU is the **effective management of existing MPAs and securing the support for the designation of new MPAs**. The application of ocean literacy to these challenges would be very beneficial and is a potential additional storyline. Steve FLETCHER
- I suggest a story on **coastal ecological engineering**. **Several innovative projects undertake research and development on this topic to learn more about the functionality of ecosystems and opportunities to restore the marine biodiversity** will be presented increase the marine ecosystems ecological functionality knowledge's and develop coastal ecological engineering solutions to reach "a good ecological status" required in the European Marine Framework Strategy Directive. Examples are in marine port facilities, areas impacted by wastewater treatment plant discharges, seafloor impacted by moorings, etc. **This story could shows positive human action to restore ecosystem damaged by previous activities**. (Guy HERROUIN)
- Our interest is plastics and in the wider sense. In the context of the marine environment not only microplastics are relevant, but obviously to the vast majority wastes, which appear in the landscape and in the oceans. Several investigations and studies came to this conclusion. Therefore, **waste management should be linked to the sea and the water media. Such a storyline would be highly important in order to contribute to solutions against litter in the oceans**. (Ingo SARTORIUS)
- Since I am not from Europe, I don't have a European perspective to provide. However, in general, there are regional initiatives taking place in the U.S. that could be examples for ResponSEable. **The National Ocean Policy**, established by Presidential Executive Order in



2010, called for the formation of **nine regionally focused regional planning bodies (RPBs) to better manage the nation's oceans and coasts**. The regional planning bodies oversee three distinct activities—data gathering/sector engagement, agency coordination, and communications and outreach. The process includes broad public engagement to identify the knowledge, perspectives, and needs of ocean stakeholders—fishermen; scientists; boaters; environmental groups; leaders in the shipping, ports, and energy industries; and all citizens whose lives are touched by the ocean. The six selected stories center on issues to which the public can relate. However, much the same as with the U.S. RPBs, it will be important to identify how the public is relating to the issues – why are they important on a regional level, what do people currently think about the issues, what are the misperceptions that need to be addressed, etc. (Gail SCOWCROFT)

- Although my perspective is non-European, I think the choice of story lines is reasonable and encompassing many of the key issues. Several principals should guide the development of the stories and I believe ResponSeAble has considered these key points. First, the **topics must focus on issues for which there is available information so that the story is complete**. Second, **stakeholders care most about their own back yard** so examples from each region will serve the project well. Third, and I think this is really important, is to **ensure that the storylines encompass both the good as well as the bad** – in other words gloom and doom stories that appear hopeless will alienate stakeholders. One area that might be developed – perhaps within **sustainable fisheries** – **is the development of marine protected areas as a tool for sustainable use**. This is a topic of great interest in many parts of the world and therefore a good potential link with other groups. (Paul SNELGROVE)



Question 6. Are you currently involved in activities (be it a research/educational project/policy initiative/or public awareness campaign) that relates to the ocean literacy or these particular key storyline? If yes, which ones – and how could we link to them?

- UNEP-WCMC has several OL linked proposals in progress, but nothing concrete at present. However, we are discussing OL directly with **UNEP** as a strategy to support coral ecosystem conservation. I can keep you posted on any developments on projects relevant to ResponSEable. (Steve FLETCHER)

- Fate of micro-plastics – from plastic pellets producers to the sea. **Microplastics is a important new project funded through FUI French** (Suez, Ifremer, CNRS,...) to know better microplastic in trophic chain and to test specific treatment in waste water plant to avoid microplastic in coastal sea. Integrating (marine) renewable energy development, important development is plan for offshore wind floating platform (3 areas in French Med Sea, Gulf of Lion) (Guy HERROUIN)

- (Marta Ruiz) All the issues that the case stories will be focused on during the project are issues addressed in the regular activities conducted by HELCOM. Though the appearance in papers, information on the activities regularly provided in the HELCOM website, specific publications, and so on, HELCOM aims at contributing to ocean literacy. Regarding specific stories within the project:
 - Story 2: at the moment, HELCOM is not involved in any agri-environmental project but has been in the past. **HELCOM Agri group exchanges knowledge of good agrienvironmental practices**. Currently the group is working to advance nutrient recycling, nutrient accounting at farm level in the Baltic Sea region and create guidelines for the use of national manure standards. <http://www.helcom.fi/helcom-at-work/groups/agrigroup>.
 - Story 6 on ballast water: it is worth mentioning the **Clean Seas Guide** (2012, being currently updated) for mariners, which among other issues refers to alien species from ship ballast water and sediments. Also to note the HELCOM **Guide to alien species and ballast water management in the Baltic Sea**. Further information on the work conducted within HELCOM on ballast water can be found here.

- Ingo SARTORIUS: Our organization is caring for microplastics as well as plastics waste. With this regards, the following activities are within our scope. Generation of a fact basis about:
 - entry pathways of waste and particles into the water media
 - Biological and chemical behavior of particles in the sea
 - Support to the recent German Governmental funding call
 - Support to the Austrian initiative for a methodology to measure particles in the Danube river
 - Establishment in 2013 of a practice project within chemical industry's Responsible Care Programme in order to achieve zero pellet loss within the scope of our production
 - Spreading this practice project along the value chain, recently successfully with the plastics packaging converters, but also to cosmetics, fibres, textiles and chemical industries
 - Spreading the target of zero pellet loss via the campaign "operation clean sweep" around the world by our world plastics council and by the joint industry declaration since 2011 being annually updated



- Diverse communication contributions by flyers, leaflets, publications, information at fairs, participation at conferences etc.
 - Collaboration with water sports associations: canoe, rowing, sailing und diving in order to jointly advertise the necessity for water protection
 - Support to administration, be it Governments and local Authorities, Regional Sea Conventions like OSPAR and HELCOM
 - Since 2016, kick-off international standardization in order to develop a harmonized procedure for sampling, treatment and analytics of microplastics from the environment
- (Gail SCOWCROFT): I am not directly involved with any of the six issues. However, I have close colleagues who are working on the science and policy related to the development of the **first U.S. offshore wind farm** (see <http://dwwind.com/about/>). I could help ResponSEable make connections to this initiative.
- (Paul SNELGROVE): See above but my own links are not specifically with ocean literacy (except for involvement in something called the **Ocean Learning Partnership in Newfoundland** that seeks to raise awareness on oceans in children and the general public). Having said that, I am very much interested in science to support sustainable oceans and in finding ways to communicate that need to the public. So potential links do exist there.

Question 7. Are you planning, or aware of, workshops and events dealing with the above key storylines? If yes, could you specify the focus, the expected audience, the date of the event, link to the website? And how could we contribute to these events most effectively?

- Steve FLETCHER: I am co-leading a study by the **International Resources Panel on the effects of land-based human activities in marine and coastal resources. This will host several workshops in due course which will be relevant to storylines 1, 2 and 4 at least.** Although not a study, it is worth noting that at the recent UN Environment Assembly in June 2016, there were three resolutions concerning the seas – one on coral ecosystems which is not so relevant, but another on marine microplastics and another on marine conservation and sustainable management of the oceans. These are important as the empower UNEP to act on these topics. They are therefore actively seeking innovative policy responses to these issues, so there is a clear opportunity for ResponSEable to contribute to these policy debates. This is something I can support and facilitate if this is a route the project wishes to follow.
- Marta Ruiz:
- Story 1 on microplastics in cosmetics: the section on news on the 'Microplastics' Interreg project.
- Story 2 on eutrophication:
- European Sustainable Phosphorus Platform lists events related to nutrient recycling organized in Europe but also in other parts of the world: <http://phosphorusplatform.eu/events/upcoming-events>
 - The agricultural European Innovation Partnership (EIP-AGRI) also has a list of upcoming events but they are related to agriculture in general and not all have an environmental aspect <http://ec.europa.eu/eip/agriculture/en/news-events/events/european-calendar>
 - International conference "A greener agriculture for a bluer Baltic Sea" gathering participants (administration, farmers, advisory, NGOs) from all Baltic Sea countries has



been organized for many years already. It is still unclear if the conference will be held also in 2016 since there has been problems with financing. Last year's conference:

<https://www.umweltbundesamt.de/en/greener-agriculture-1>

- The 7th Strategy Forum of the EU strategy for the Baltic Sea region will be organized 8-9 November in Stockholm, Sweden. The programme has not yet been public but will include topics relating to protection of the Baltic Sea environment.
- (Ingo SARTORIUS):
- March 2016: pan-european Polytalk in Brussels
 - March 2016: German annual water conference
 - March 2016: kick-off German Round table Marine Litter
 - June 2016: European freshwater conference
 - June 2016: OSPAR meeting
 - July 2016: diverse conferences in Germany e.g. in Stuttgart, Bayreuth, etc
 - September 2016: ISO (International Standardisation Organisation) of the plastics committees, inter alia about microparticles in the environment
 - October 2016: international plastics trade fair in Düsseldorf
 - February 2017: international plastics waste conference (Identiplast) in Vienna
- (Gail SCOWCROFT): Although I currently do not have an initiative that is focused one of the six specific stories, I have a great deal of experience with ocean science education and literacy efforts and can help on an overall level. I am also happy to assist with any of the topics.
- (Paul SNELGROVE): AORAC, and through groups such as ICES, certainly link to sustainable fisheries issues and various workshops and meetings on those issues. **Linking to AORAC and their ocean literacy WP** will help.

Question 8. Would you be interested in “being in touch”, providing guidance, or being informed of our work with a particular storyline? If yes, which one?

1. Microplastics	Steve FLETCHER, Guy HERROUIN, Ingo SARTORIUS
2. Fisheries	Linwood PENDELTON, Paul SNELGROVE, Pim VISSER and Camiel DERICHS
3. Eutrophication	Steve FLETCHER, Marta RUIZ
4. Coastal Tourism	Gail SCOWCROFT, Guy HERROUIN
5. Renewable Energy	Guy HERROUIN
6. Ballast water	Marta RUIZ

General comments:

- **The link to policy delivery is really important** – as a minimum to show how OL strategies can contribute to the delivery of European marine priorities (and the international commitments to which European countries have signed up, such as the sustainable development goals, Aichi targets, etc). This could be a really interesting piece of work and provide a very compelling answer to challenges over why behaviour change is an important topic to study and invest in. (Steve FLETCHER)



- Let's more **work on solutions**. Next to communication, not only awareness raising according to the current ResponSEable activities, the consumers and stakeholders need to be educated and informed about proper waste management. The goal must be to prevent that any product, which comes to its end of life stage, does not appear illegally in the environment. Therefore, the **solution is a proper waste management**. And it will be worth for ResponSEable to supplement a story line on proper waste management. With this regards, ResponSEable could support with two stories such as :
 - 1) establishing effective waste management infrastructure e.g. by showing best practice cases
 - 2) 2) communication towards awareness raising of the consumers to properly manage their wastes.
- **The story lines should be assessed very differently with respect to their impact**. For instance, compared to eutrophication or to the problem of antibiotica from agriculture farming, the significance of microplastics seems to be negligible. Up to now, an assessment of the impact and significance of the diverse marine issues is not known to me. But it will be worth while, in order to encounter the diverse problems with maximum efficiency. (Ingo SARTORIUS)
- To contribute the maximum impact to the field of ocean science education and literacy, I think it will be extremely important for **ResponSEable to go beyond determining what will change and motivate behaviours. Helping to determine the most effective interventions will maximize the EU's investments**. I think it is also important not to duplicate efforts. So there needs to be an **understanding of what other groups/projects are doing**. For example, have the outcomes and lessons learned from Sea for Society informed ResponSEable planning and activities. (Gail SCOWCROFT)
- I think **clarifying the niche and vision of where you want to be 4 years** would be a really worthwhile activity. Ocean literacy needs ResponSEable so that leaves the question of **how to maximize the impact and demonstrate that impact**. I feel silly asking this question of a communications oriented network, but have you developed a specific communications strategy that identifies exactly who you want to reach, the sorts of mechanisms to reach those stakeholders, and who is taking the responsibility for reaching that group? If not, some thought along those lines might be productive because it highlights the challenges and promotes thinking on how to reach groups that may not be so easy to reach (Paul SNELGROVE)