

## Deliverable 3.1

# Our Ocean & Human Health Conversations Summary Report (*Healthy Coastal Living and Sustainable Blue Tourism*)



*(View from workshop venue, Royal Marine Hotel, Dun Laoghaire)*



**Seas, Oceans & Public  
Health in Europe**  
Linking oceans and health research



**OÉ Gaillimh  
NUI Galway**



@OceansHealthEU



*(Sunrise over Dublin Bay, morning of OHH Conversations workshop, February 18th, 2019.)*

### Acknowledgments:

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**DISCLAIMER**

**PLEASE NOTE: CONCLUSIONS REGARDING PRIORITIES AND ACTIONS ARRIVED AT BY THIS PROCESS WERE GENERATED BY MAJORITY VOTE OF THE OVERALL PARTICIPANT GROUP AND MAY NOT NECESSARILY REPRESENT THE VIEWS OF INDIVIDUAL GROUP MEMBERS**

# The Context

**Seas, Oceans and Public Health in Europe (SOPHIE for short) is a 2.5 year EU Horizon 2020 funded pan-European research project working towards protecting both human health and the health of the marine environment.**

Whilst the ocean can benefit human health and boost wellbeing via activities like recreation and relaxation, it can also pose risks to human health – through factors such as flooding and pollution. This complicated mix of threats and opportunities interact in ways we don't fully understand. Exploring these relationships is the basis for an emerging scientific discipline called "Oceans and Human Health" (OHH). As a maritime continent, conducting research in this area is important for Europe, its inhabitants, and its Ocean. SOPHIE is addressing this need by gathering information from many different sources: from citizens; from societal stakeholders, from research findings; from data repositories; and from existing European policies. SOPHIE brings marine and environmental scientists together with medical and social scientists, public health and other experts to tackle these complicated issues in a unique forum. SOPHIE is creating a network of people and organisations interested in the links between ocean and human health; and exploring how marine tourism and citizen science can contribute to this growing discipline. The ultimate aim of the project is to produce a Strategic Research Agenda – a road map which sets out the priorities for OHH research over the coming decade. Several small-scale projects SOPHIE is conducting will feed into a final Strategic Research Agenda (see Figure 1). SOPHIE contributes to the United Nation's Sustainable Development Goals (SDGs), by creating strong links between conserving and sustainably using the ocean (SDG 14) and ensuring healthy lives and promoting wellbeing for all (SDG 3).



**Figure 1:** Summary of key research activities and actions in SOPHIE.

# Our Ocean & Human Health Conversations: A Stakeholder Engagement Process.

*How do we understand the links between oceans and human health? What are the top priorities for oceans and human health in Europe? How do we protect public health and the health of the marine environment for a more sustainable future?*

These are just some of the questions our stakeholder conversations in SOPHIE is trying to answer. Every person in Europe has a stake in promoting and protecting the benefits to health and wellbeing provided by the marine environment, whether it is high on their agenda or not.

The purpose of our OHH Conversations is to engage and listen to a broad mix of people, from different backgrounds and disciplines across Europe, to **define future Oceans and Human Health research priorities**. Through stakeholder discussions, we are bringing together a network of people and organisations interested in the links between oceans and human health, and exploring how public health, marine sectors and citizen science can contribute to this exciting area of research.

Our OHH Conversations are about collaboration, empowerment and direct active engagement with invited stakeholders with expertise in ‘healthy coastal living’ and ‘sustainable blue tourism’, from a mix of marine environment and public health backgrounds including research, policy, and practice.

Our OHH Conversations are about speaking and listening to people on their own terms. Our conversations go significantly beyond just asking people for their opinions or what might be called ‘participation by consultation’. It gives invited participants a voice about the priorities for change and ownership and responsibility for solutions to influence their welfare, together learning how to protect the health of the marine environment and public health for a sustainable future.[1].

This summary report describes the key findings from Our OHH Conversations which took place in Ireland in February 2019. Our OHH Conversations aimed to:

- 1. Discover the top priorities for oceans and human health in Europe.**
- 2. Learn from others about the pathways forward to protect the health of the marine environment and public health for a sustainable future.**
- 3. Inform the Strategic Research Agenda for Oceans and Human Health in Europe**

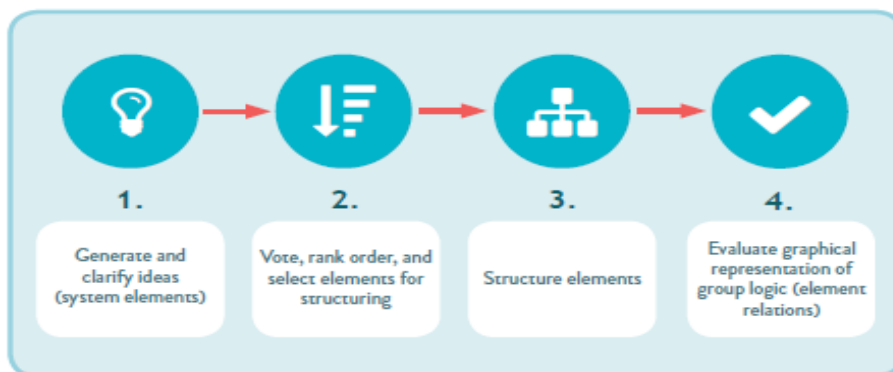
# Our Conversations Process

Collective Intelligence (CI) is a methodology which facilitates group discussion and consensus building. Within conversations, participants from different backgrounds and sectors work collaboratively to reach a consensus on how best to address a complex issue, in this case the priorities for protecting public health and the health of the marine environment for a sustainable future.

CI encourages participants to design resolutions through reflective negotiations and voting for strategies that are perceived to have the greatest impact and influence.

In a typical CI session, participants, with expertise and insight into a problem engage in: (a) developing an understanding of the situation, (b) establishing an integrative basis for thinking about the way forward and (c) producing a strategic framework for effective change [2]. The facilitation of CI conversations takes into account the contextual factors that may impact on group work by integrating the influence of culture into the discussion. It also benefits the researcher, as the sessions provide deeper insights into how attitudes are influenced by group work itself [3]. This conversation was conducted with marine and public health experts within the domain of ocean and human health.

The CI conversations process centred around four stages, used to collect data [4,5]. The same stages were used in both conversations and are summarised in Figure 2.



**Figure 2:** Summary of the Collective Intelligence Conversation Process

## (1) Online Priority Generation

Over 800 OHH experts across Europe and the World were identified and asked the same trigger question for Our Ocean Conversations:

***What, in your opinion, are the top priorities for protecting public health and the health of the marine environment for a sustainable future?***

This question was asked online via email where participants were given the opportunity to reflect on the question and think of as many priorities as possible, with the help of suggested 'starter phrases' (see Appendix One). Each participant was then given the opportunity to clarify each priority using a clarification statement. In total, 272 participants responded and 673 priorities with 646 clarification statements were generated. A word cloud representing responses is illustrated in Appendix Two.

## **(2) Priority Categorisation**

Once priority generation was completed online, the CI facilitation team began the categorisation process. The first eight priorities were placed separately on boards and all other priorities were compared with them. In this process, referred to as paired comparison, priorities that were deemed similar to each other were grouped together. Once at least eight priorities were grouped together, the internal working group labelled the category. In total, 26 categories were generated (see Appendix Three). On the day of the conversation, participants became involved in the categorisation process when they were asked to review the priority category headings and their respective priority statements. For example:

**Human Health and Wellbeing Benefits from Oceans** - *Understand the human health and wellbeing benefits from the marine environment.*

Following the review, if participants felt that some category headings and statements should be amended, the proposed category amendments were discussed with the group and the re-naming of individual category headings and/or category statements were made when a group consensus was reached. Once idea categorisation was complete, participants engaged in a voting process to identify the most important priorities.

## **(3) Structuring Priority Categories (elements)**

The priority categories that received the highest votes in each workshop (11 in workshop 1 + 11 in workshop 2) were entered into the Interpretative Structural Modelling (ISM) software, where a series of relational questions, "*Does Priority A significantly impact Priority B?*" were asked to the stakeholders. A yes/no vote was taken. In order for a yes or no vote to be entered into the ISM software at least 60% of the group must vote that way. Structuring continued until all relational priorities voted upon and structural priority maps were generated.

## **(4) Generating Calls to Action**

To conclude the CI conversations, stakeholders were divided into sub-groups, to work with two OHH categories from stage 2. They were provided with the facilitation question: "*What are the options for realising the priorities in the [category title]?*" and asked to explain their proposed actions with the entire group. All stakeholders then discussed and voted for the



proposed actions they perceived to be the most feasible, impactful, timely, with an identified champion to lead the call to action in each category.

This CI process took place from October 2018 to February 2019 and our OHH Conversation workshops took place on February 18th and February 25th 2019 in Ireland.

## The Results

### **Diverse Priority Pathways for OHH**

Our OHH Expert Conversations brought together diverse stakeholders from a mix of communities, disciplines, sectors and backgrounds. These diverse perspectives impact on group work by integrating the influence of culture into the discussions. This resulted in the co-creation of two different structural maps, or 'OHH Priority Pathways' (see below, Fig. 3-4). This outcome emphasises the complexities of OHH and the interrelationships between priority areas and forces at play within a dynamic OHH system.

### **Results from workshop 1**

Our first OHH Conversation workshop took place on the 18th of February in the Kingstown Suite in the Royal Marine Hotel in Dun Laoghaire, Dublin. Sixteen stakeholders were identified as experts in their respective fields, who represented marine and public health sectors involved in education, activism, outreach, research, tourism, health-care, regulation and policy decisions, etc. participated in our conversation (see Appendix Four).

### **Priorities for OHH**

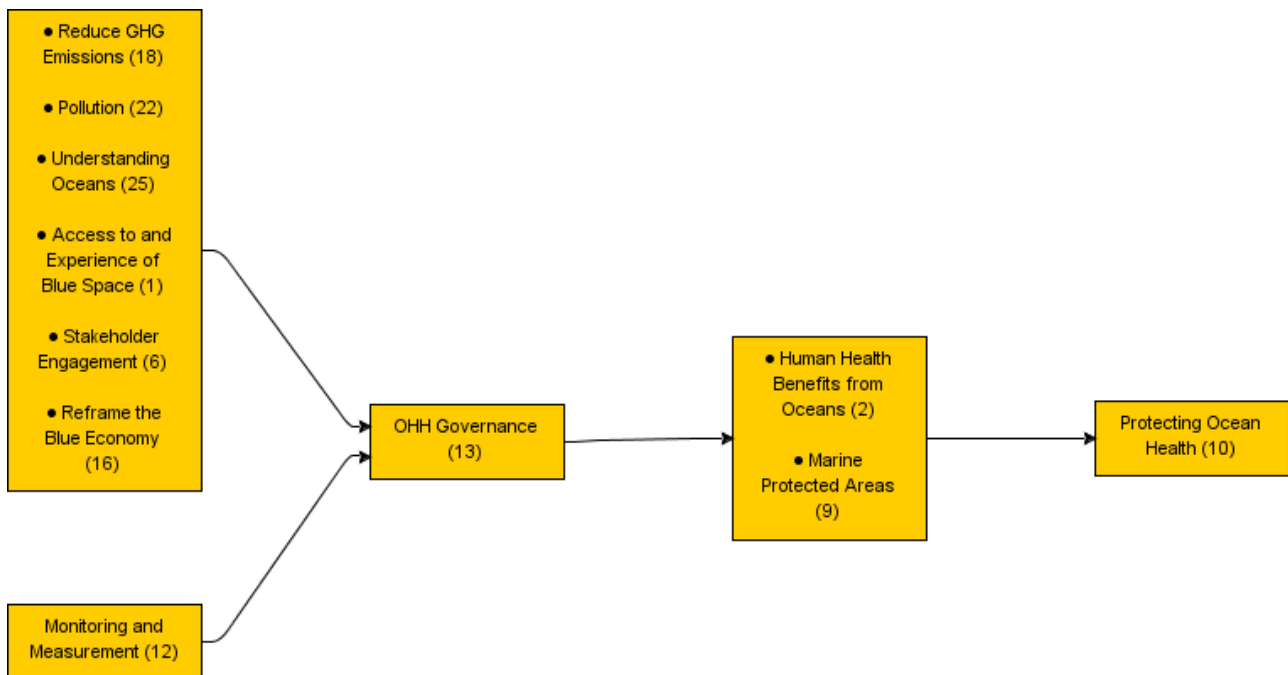
*The top eleven most voted for OHH priorities were:*

- Reframing the Blue Economy (20 votes)
- OHH Governance (18 votes)
- Reduce GHG Emissions (18 votes)
- Prevent Pollution (15 votes)
- Understanding Oceans (13 votes)
- Access & Experience of Blue Space (12 votes)
- Human Health Benefits from the Ocean (11 votes)
- Stakeholder Engagement (11 votes)
- Marine Protected Areas (11 votes)

- Protect Ocean Health (11 votes)
- Monitoring & Measurement (11 votes)

### OHH Priority Pathways

The structural priority map of OHH priority pathways developed during Step 3 of the first workshop is shown in Figure 3. The structural priority map is the most tangible output from Our OHH Conversations.



**Figure 3:** Structural Priority Map, workshop 1.<sup>1</sup>

This structural OHH priority map is read from left to right with the priorities to the left significantly impacting the priorities to the right. Two different priority pathways are evident in Figure 3, with directional arrows indicating pathways of influence. For example, ‘Monitoring & Measurement’ significantly impacts ‘OHH Governance’, which in turn significantly impacts ‘Human Health Benefits from Oceans’ and ‘Marine Protected Areas’ which then significantly impacts ‘Protecting Ocean Health’. The priorities grouped together in the same box, such as ‘Understanding Oceans’, ‘Access and Experience of Blue Space’ and ‘Stakeholder Engagement’ are reciprocally inter-related and they significantly impact one another.

The structural priority map also highlights challenges in the system. For example, if you are working to realise the ‘Human Health and Wellbeing Benefits from the Ocean’ and are not achieving key outcomes, this could be an indication of issues upstream. You may find

<sup>1</sup> (The numbers beside each of the priorities corresponds to when it was inputted into the computer software).

that the challenge in the system might come from need to improve access to blue space and/or stakeholder engagement.

### **Calls to Action for OHH**

*The most voted for actions in Step 4, perceived to be the most feasible, impactful and timely were:*

- Taxation of the blue economy and legal penalties for polluters. (24 votes).
- The Ocean Impact Index: Working with industry to develop an index highlighting how products impact the ocean. (14 votes)
- Stop / end harmful subsidies - Start subsidising activities that promote ocean health or that are sustainable. (17 votes).
- Reframe the EU policy priorities on 'blue growth' to include social, environmental and cultural aspects. (10 votes).
- Use economic incentives to implement actions at local and national levels e.g. carbon tax. (15 votes).

### **Results from workshop 1**

Our second OHH Conversation workshop took place on the 25th of February, also at in the Kingstown Suite in the Royal Marine Hotel in Dun Laoghaire, Dublin. Fifteen further stakeholders identified as experts in their respective fields, who represented marine and public health sectors involved in education, activism, outreach, research, tourism, health-care, regulation and policy decisions, etc. participated in our conversation (see Appendix Two).

### **Priorities for OHH**

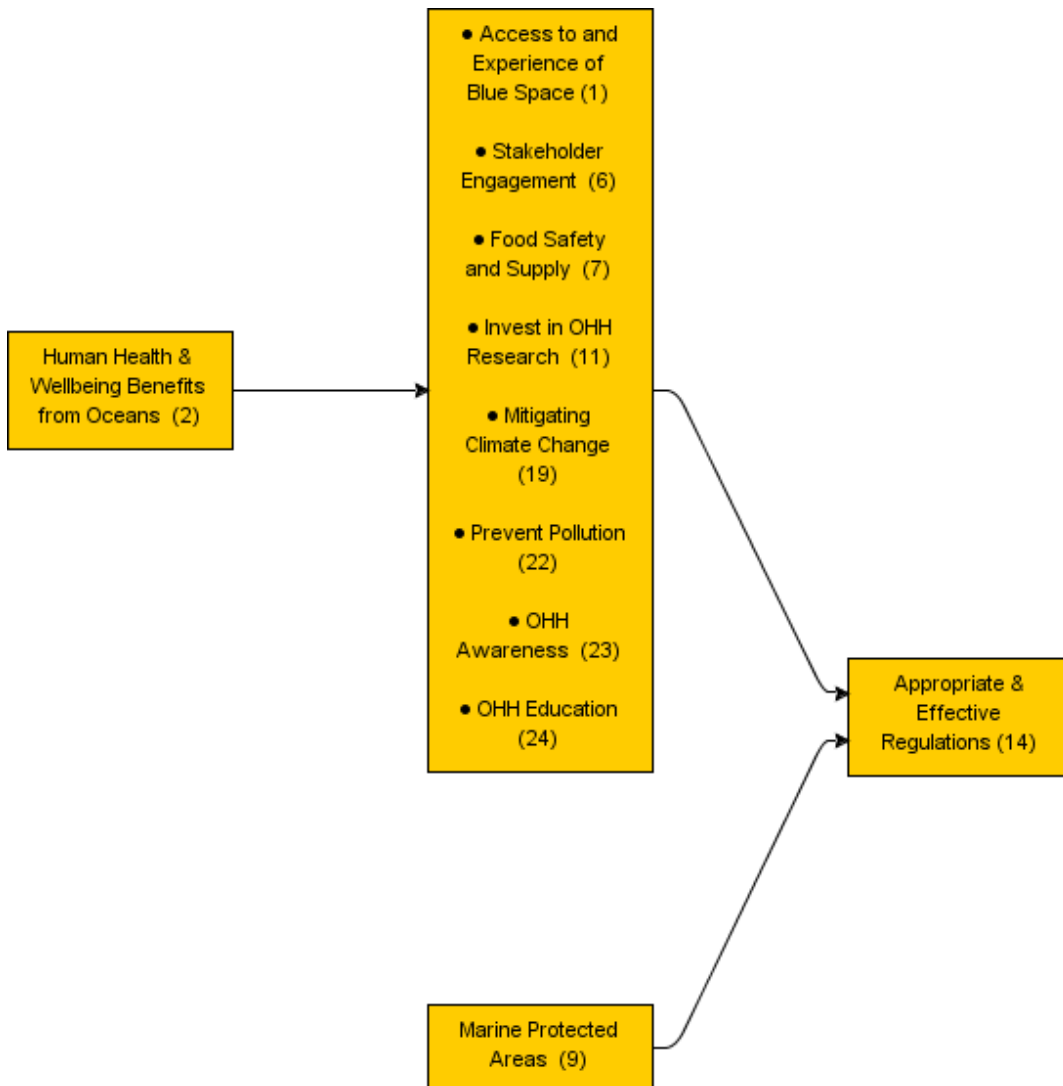
*The top eleven most voted for OHH priorities were:*

- Appropriate & Effective Regulations (22 votes)
- OHH Awareness (19 votes)
- Prevent Pollution (17 votes)
- Mitigating Climate Change (15 votes)
- Invest in OHH Research (14 votes)
- Human Health Benefits from the Ocean (13 votes)
- Food Safety and Supply (12 votes)
- Marine Protected Areas (12 votes)
- OHH Education (11 votes)

- Stakeholder engagement (9 votes)
- Access & experience of blue space (9 votes)

### OHH Priority Pathways

The structural priority map of OHH priority pathways developed during Step 3 of the first workshop is shown in Figure 4. The structural priority map is the most tangible output from Our OHH Conversations.



**Figure 4:** Structural Priority Map, Workshop 2.

This structural priority map is read from left to right with the priorities to the left significantly impacting the priorities to the right. Two different priority pathways are evident in Figure 4, with directional arrows indicating pathways of influence. For example, ‘Marine Protected Areas’ significantly impacts ‘Appropriate and Effective Regulations’. The 8 priorities grouped together in the same box, such as, ‘Access to and Experience of Blue Space’,

‘Stakeholder Engagement’ and ‘OHH Education’ are reciprocally inter-related and they significantly impact one another.

The structural priority map also highlights challenges in the system. For example, if you are working to ‘Prevent Pollution’ and are not achieving key outcomes, this could be an indication of issues upstream. You may find that the challenge in the system might come from need to better understand the human health and wellbeing benefits from the ocean.

### **Calls to Action for OHH**

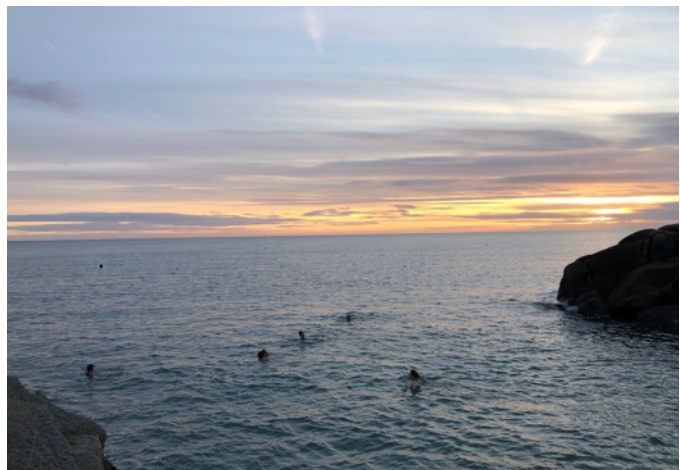
*The most voted for actions in Step 4, perceived to be the most feasible, impactful and timely were:*

- Improve OHH education and ocean literacy in and outside of schools (22 votes)
- Promote local, sustainable options (16 votes)
- Invest in translating research into public knowledge (16 votes)
- Campaign to raise awareness of OHH and tools to measure (8 votes)

## **In Summary**

Our OHH Conversations resulted in the generation of:

- 673 Priorities
- 646 Clarifying Statements
- 26 Categories
- 9 top voted Actions



Most importantly, our OHH Conversations allowed space for everyone to connect, network and actively build collective leadership capacity, vision and commitment. The environment we live and work in matters and our workshops were held a stone’s throw from the sea; where a few brave souls took a sunrise sea dip in the invigorating waters of the Irish Sea!

# References

1. McHugh, P., Domegan, C., Devaney, M. and Hastings, G. (2015) 'A Set of Sea Change Guiding Principles and Protocols'. EU Sea Change Project.
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# Appendix One

## **Starter Phrases to Generate Priority Statements.**

*Here are some helpful words to build your three priority sentences with:*

*Protect ...*

*Understand...*

*Build...*

*Lead...*

*Invest in...*

*Promote...*

*Manage...*

*Improve...*

*Deliver....*

*Reduce...*

*Enhance...*

*Develop...*

*Investigate...*

*Evaluate...*

*Remove...*





## Appendix Three

### 26 Priority Areas identified for Oceans and Human Health *(in no particular order)*:

- **Access to and Experience of Blue Space** - *Realise health and wellbeing benefits from experiencing and engaging with blue space, seas and oceans.*
- **Human Health and Wellbeing Benefits from Oceans** - *Understand the human health and wellbeing benefits from the marine environment.*
- **Human Health Risks from Oceans** - *Risks posed to human health from degraded & polluted marine environments.*
- **Coastal Resilience** - *Enhance the resilience of coastal communities and regions for a sustainable future.*
- **Promote Solutions for OHH** - *Empower action to protect the marine environment and human health for a sustainable future.*
- **Stakeholder Engagement** - *Importance of collaboration and inclusive approaches that cross borders, sectors, disciplines.*
- **Food Safety and Supply** - *Value importance of healthy oceans for the provision of a healthy and safe supply of food.*
- **Healthy Oceans for Healthy People** - *Recognise the importance of a healthy marine environment for human health.*
- **Marine Protected Areas** - *Improve the protection of the oceans by creating effective and well managed marine protected areas globally.*
- **Protecting Ocean Health** - *Protect the functioning of all marine ecosystems.*
- **Invest in OHH Research** - *Invest in research to better understand the synergies between oceans and human health.*
- **Monitoring and Measurement** - *Understand past and future trends for oceans and human health through improved and transparent monitoring, observation and measurement.*
- **OHH Governance** - *Develop OHH governance – Good governance leads to improved policies and practices.*
- **Appropriate and Effective Regulations** - *Enforce effective and appropriate regulations to protect marine environments and human health for a sustainable future.*
- **Sustainable Fisheries Management** - *Improve fisheries management to ensure sustainable use of oceans.*
- **Reframe the Blue Economy** - *Integrate the importance and value of social, cultural and environmental factors as well as economic.*

- **Human Exploitation** - *Reduce human impacts and stressors on the marine environment.*
- **Reduce GHG Emissions** - *Recognise and reduce the impact of GHG emissions on oceans.*
- **Mitigating Climate Change** - *Understand the interlinkages between climate change, the marine environment and human health.*
- **Blue Technologies** - *Develop new and alternative technologies to advance the synergies between oceans and human health.*
- **Eliminate Plastic Pollution** - *Tackle ocean plastic as a major threat to healthy oceans and human health.*
- **Prevent Pollution** - *Understand pollution pathways to and from the ocean environment in order to prevent marine pollution.*
- **OHH Awareness** - *Improve awareness of the importance of oceans for human health.*
- **OHH Education** - *Educate about the importance of oceans for human health.*
- **Understanding Oceans** - *Improve understanding of why the ocean matters.*
- **Understanding OHH Interconnections** - *Improve understanding of the relationship between ocean health and human health.*

# Appendix Four

## OHH Expert Participants at our OHH Conversation Workshops.

### OHH Expert Participants, Workshop 1



**(L-R):** Hervé Raps, Niall McDonough, Christine Domegan, Fiona Monaghan, Francesca Santoro, Chris Hines, Fernanda Balata, Ruth Brennan, Farah Obaidullah, Alessia Clochiatti, Natalie Fee, Serge Gomes da Silva, Easkey Britton, Aoife Kirk, Shaun Holmes, Ingvar Berg, Charles Ehler, Dan Burgess.

### OHH Expert Participants, Workshop 2



**L-R):** Ogi Markovic, Andrew Bell, Philippe Bencivengo, Carolina Pereira, Evarist March, Nick Young, Christine Domegan, Tiago Garcia, Easkey Britton, Jeremy Percy, Linzi Hawkin, Kimberley Peters, Timothy Bouley, Louisa Hooper, Hugo Tagholm, Lise Madsen, Tadhg Lynch.