

# FINAL REPORT (DEVELOPMENT AWARD)

2017-142: Travel and attendance at Sustainable Ocean Summit 2017, Canada

**AWARD RECIPIENT:** Johnathon Davey (SIV) and Aaron Irving (NAC)

**ADDRESS:** Halifax, Canada

**DATE:** 1 December 2017

## ACTIVITY UNDERTAKEN

The World Ocean Council (WOC) Sustainable Ocean Summit (SOS) was held from 29 November to 1 December 2017 in Halifax, Canada,.

The SOS 2017 theme was “**The Ocean Sustainable Development Goal (SDG 14): Business Leadership and Business Opportunities**”.

Both myself and Aaron Irving (Pearl Producers Association) were invited to present on Australian developments in the Ocean Sustainable Development forum. As the principle investigator for FRDC Project 2013-209 ‘*Optimising processes and policy to minimise business and operational impacts of seismic surveys on the fishing industry and oil and gas industry*’, I was asked to present on how these sectors interact with each other in Australia. This presentation was within the scope of the ‘Marine Sound’ session and combined with other presentations and the panel session following, the consultation and working relationship between the industries in Australia appears to be leading the world and the messages of opportunities to collaborate were well received.

I sincerely thank the FRDC for the opportunity to attend, present and be engaged in this global forum.

### **General Overview:**

The Sustainable Ocean Summit gathered ocean industry leaders and international experts for dialogue on the future of responsible ocean business. Over the course of three days, speakers and participants shared insights into ocean sustainable development, opportunities and challenges for the next 15 years, and examined actions required to make progress towards achieving SDG 14 targets. The concept of “Blue Sky Thinking” was engaged (creative thinking unfettered by convention and reality).

From an economic point of view, the ocean industry is developing rapidly, and is forecasted to continue on an upward trajectory for the next 15 years. Technology and innovation will be key contributors to the sustainability of this development. The SOS highlighted the need for relevant data to improve ocean monitoring and understanding, and to foster ocean business efficiency. Ocean businesses have a role to play in addressing the world’s most pressing current issues (food safety for a growing population, energy needs, air quality, etc.). Among the solutions discussed were ocean energy, exploration, aquaculture, seabed mining, floating cities, low-carbon shipping, and sustainable fishing. Most of these industries will require funding for research and development, in particular in the leveraging of technology for more reliable and profitable models.

From a social point of view, involvement of all stakeholders, especially local communities, in business sustainability initiatives will be crucial.

Environmentally speaking, the ocean business community seems to be making positive impacts with projects relating to renewable energy, carbon capture, negative emissions technologies, carbon savings via usage of alternative fuels, better waste management, and public awareness of the impact on marine wildlife.

The majority of discussions identified the potential benefits of business alliances and cross-sector collaboration, to enable the creation of common research programs, facilitate funding, empower industries to advocate for regulatory changes, and generalize knowledge and best practices.

### **Ocean Knowledge, Research and Technology**

Increasing transmission capabilities and the need for real-time data have led to an upsurge in the connector market and improvements in satellite and drone data collection systems. While access to comprehensive and relevant data is essential for research, data sharing has raised concerns over cost, confidentiality and mutual reliance. Establishing precise project goals will be essential to choosing pertinent and granular data for use.

The WOC has a Smart Ocean-Smart Industries program, which is working to ensure that industry data collection and sharing is efficiently coordinated, and subsequently integrated into national and international public science programs in a cost-effective manner.

### **Food Security: Sustainable Fishing and Aquaculture**

Aquaculture, in particular open-ocean aquaculture, plays an essential role in meeting growing demands for protein. Although research, education and technologies in aquaculture development have made significant progress over the last few years, the vast potential of the industry has yet to be fully realized. Key barriers include complex permit processes, poor public perception and a lack of funding. Innovative technologies and adequate monitoring systems will be crucial to circumventing much of the existing environmental impacts.

Players in the fishing industry are also making stronger commitments to responsible fisheries management, by reason of their heavy dependence on the sustainability of ocean resources. While certification and traceability have become valuable tools for guaranteeing the sustainable production of seafood, they will need to be developed beyond certification paperwork and mere compliance, towards social license and ethical trade. Sustainable fishing also implies the reduction of ghost – abandoned – gears.

### **Climate Change and Ocean Acidification**

There appears to be a global urgency for coastal infrastructure, both natural and artificial, to adapt to climate and other pertinent risks. Restoring green infrastructures such as mangroves can bring vast environmental and sources of food and income for coastal communities, and have direct impact on the quantum of damage and losses suffered through natural disasters. However, financing such restorations projects remains challenging.

Additionally, the ocean itself is believed to be capable of helping, in CO<sub>2</sub> sequestration via ocean-based negative emissions technologies. It was noted a lot of this thinking and testing is still under development, but the potential risks involved in implementing them are comparable to risks involved in any business operation. Workable technical, regulatory and financial structures will need to be developed. There is potential economic incentives such as government subsidies and carbon tax systems to continue development.

### **Marine Pollution**

Two types of pollution were spotlighted: biofouling and marine sound.

The adoption of eco-friendly technical solutions for biofouling has been limited thus far, and requires stronger regulations and further public exposure. Discussions focused on identifying common standards and solutions to biofouling. The future involvement of the paint industry will be key to the research of such solutions. Biofouling will feature heavily in the agenda of SOS 2018.

Reducing or limiting man-made marine sounds will require coordination among industries and other stakeholders. Likewise, funding for peer-reviewed research will allow for better understanding of the effects of underwater noise on biological organisms and animal behaviour. There was a strong panel discussion around the need for facilitation of inter-governmental efforts and cross-sector collaboration and the potential for a third-party, independent, source of knowledge. There was no commitment or agreement for these to proceed, but to continue the dialogue.

### **Conservation and Ecosystem-Based Management**

More and more green shipping initiatives are being implemented and supported by environmental certifications. Despite hefty investment costs, the reduction of greenhouse gas emissions has implied higher fuel efficiency and hence lower operation costs. Transparency and collaboration can help spread best practices and share costs of research. Moreover, as laid out during the session on Green Shipping, environmental performance is often related to ship safety.

There remains a need for further data collection, improvement of infrastructures, development of microbusinesses, expansion of emergency response capacities, and definition of low impact shipping corridors to minimize impacts on wildlife. It is essential to include all stakeholders, especially indigenous communities, in the consultation and implementation processes.

### **Economic Benefits to Small Island Developing States and Least Developed Countries**

By 2050, ocean energy extraction could represent double the current electricity production. Financial and technological barriers still must be overcome. Current uses of ocean energy sources include water desalination systems, electricity for remote communities and aquaculture. Important questions to answer before implementing an ocean energy project include the viability and safety of the infrastructure, as well as its co-existence with other marine space users. It is essential to involve local communities in these discussions.

### **Ocean Governance**

The SOS 2017 addressed various aspects of ocean governance, covered new topics such as the social license to operate, and continued updating the ocean business community about the BBNJ negotiation process at the UN. The SOS session on Social License examined numerous sectors of the blue economy. Sectors must collaborate harmoniously in a multi-use ocean and respect traditional owners of the resources. The social license to operate is brought on by transparent and inclusive engagements on the part of all ocean industries. It involves collaboration with local stakeholders and transparency regarding the potential environmental impacts of economic activities.

A new legally binding instrument on Biodiversity in Areas Beyond National Jurisdiction (BBNJ) will complement the United Nations Convention on the Law of the Sea (UNCLOS). It aims to implement a cross-sectoral system of ocean governance for a sustainable use of marine resources. The process started in 2004 with an open-ended Informal Working Group and continued in June 2015 with the implementation of a Preparatory Committee (PrepCom). With the conclusion of PrepCom meetings in July 2017, official negotiation processes have been initiated. As negotiations proceed, the focus of BBNJ will shift towards economic stakeholders and cross-sectoral industry engagement.

## **OUTPUTS AND OUTCOMES ACHIEVED TO DATE**

Exposure to issues that are affecting fisheries and aquaculture globally will be used to inform how Australia's peak body address challenges facing ocean systems in the future