

## Meeting Minutes

Meeting: IPOG Meeting MASTS ASM, Glasgow

Date: 4<sup>th</sup> October 2019

Location: Technology and Innovation Centre, Glasgow

### Introduction

The Glasgow meeting aimed to leverage the attendance of the various communities (operators, service companies, regulators, research) at the MASTS ASM. It has become clear that the IPOG has a low profile therefore a brief introduction to the programme was provided, outlining IPOG's history, membership and funding rounds.

Two projects were presented:

- Sally Rouse (SAMS) - Improving marine growth estimates using 3D photogrammetry; and
- Per Berggren (Newcastle University) - Novel low-cost methods for marine mammal and environmental monitoring

The introduction was closed out by a presentation on the changes to UKRI and NERC, and funding mechanisms available in the new structure.

### Panel Discussion

The panel discussion was framed by a number of questions, however the discussions around the first question naturally lead into a wider discussion that addressed the latter questions.

- Do you believe that the original IPOG challenges and themes remain the priorities of the industry, if not what would you like to see addressed?



- Many operators are investing in decarbonisation strategies, do you feel that this is an area that NERC funded science and technology should be supporting, and if so how?
- What science/ technologies do you believe to be key to solving the challenges in the oil and gas sector?
- What are the key enablers to innovation in the oil and gas sector utilising the science / technologies you have highlighted?
- What are the key inhibitors to innovation in the oil and gas sector utilising the science / technologies you have highlighted?

### **Oil and Gas Challenges and Themes**

It was stated that the IPOG programme was of great benefit to operators as it effectively provided cost effective access to relevant cutting edge research. It was noted that not all operators have a dedicated innovation team, particularly for Environmental matters, and this provides a challenge in terms of engagement with operators. The challenges and themes originally selected for IPOG remain relevant, although a number of oil companies are reducing their efforts to explore in challenging environments.

Energy transition was also highlighted as an increasing area of importance to traditional oil and gas companies as they recognise the impact of climate change and the need to transition to low carbon / zero carbon energy. Decarbonisation was raised by many of the audience as the key challenge to mankind and that this should be a priority. The need to derisk decarbonisation by public funding was highlighted to ensure the market develops rapidly. It was also noted that policy drivers are not as strong as they need to be to tackle the issue.

CCS was mentioned as an activity of interest to oil and gas, but the policy on decarbonisation of both power and industrial emissions was not supported with appropriate public funding.

Cost reduction was highlighted as a priority for the industry given the new “norm” for oil prices. Given the focus on core activities (i.e. those generating profit) this is particularly important for areas such as the environment. It was noted that many North Sea operators are small companies focussed on enhanced oil recovery and as a consequence are generally late adopters of technology as they do not want to accept any risk.

Digitisation was identified as a recurrent theme amongst operators, and this was reflected in other comments regarding data management, sharing and collaboration. The ability to share data and expose data to machine learning, etc. is considered important. This was also emphasised in the SUT decommissioning meeting during the presentation on Insite 2 and the work to create a discovery portal is welcome. The need reflects the Foresight report Future of the Sea which identified big data as a driver of innovation and that policy should “ensure that the UK has the necessary storage capacity, analytical skills, and coordination between sectors and within Government”.

### **Communications**

Engagement with industry trade bodies such as IOGP and O&G UK was highlighted as one way to ensure communications within the sector on NERC innovation reached a wide audience, and also the needs of the sector are appropriately represented. The audience also suggested that onshore oil and gas needed to be engaged, and UKOOG was an appropriate body.

The ‘gap’ between the industry players (operators, policy makers, regulators, etc) and research was considered an inhibitor to innovation. In the SUT decommissioning workshop “knowing what everybody else is doing” was also identified as a key issue. It was noted that the brokerage events for the IPOG Innovative Monitoring round were very helpful with industry players providing short outlines of their needs and researchers outlining the science and technology they were working on. Consolidation on research in areas that are not competitive, but rather compliance, in nature would be advantageous. Again this is a theme that was highlighted in the Foresight Future of the Sea report which stated that “the interfaces between science and policy, and science and industry should be strengthened”.

Cross sector communications was also raised, with the example of re-purposing existing oil and gas infrastructure to support other sector needs such as renewable energy, CCS, etc cited. Looking at the marine environment as a business ecosystem with multiple users needs consideration.

### **Policy and Regulation**

There was some discussion around the differences in regulators for the marine environment, and how the research needs of the regulators; BEIS (oil and gas) and Marine Scotland / MMO (renewables and the majority of other marine sector activities) are identified and shared. The wider implication that more cooperation between sectors is required, particularly when considering an ecosystem approach.

The question of consistency in international regulation was also mentioned. Stable and effective governance of the ocean, with a strategic approach that delivers on national priorities, as identified in the Foresight Future of the Sea aligns with this theme.

Policy that supports derisking of energy transition through public funding was highlighted.

### **Innovation Enablers / Inhibitors**

A challenge remains with respect to the validation of novel technologies, and also their consistency of application. The role of industry bodies such as IOGP was raised, but also the role of the regulator and supply chain in bringing the technologies into globally accepted practice. How science / technologies move from TRL4/5 (proof of concept) through to TRL9 was considered challenging with research institutes concerned at the removal of the Innovation Follow-on Fund. It was noted that Innovate UK did offer funding in this area, but the research institutes are not able to access these funds to develop technologies with the aim of creating low cost solutions for the research sector to promote societal good. It was agreed to identify existing funding within the UKRI structure that might help address this issue.

### **People**

A challenge to the oil and gas industry is recruitment as many people view the industry as dying or unattractive due to climate change issues. The transferrable aspect of skill sets gained in the oil and gas sector needs to be promoted with respect to energy transition and the broader marine environment.