

## **Supplementary written evidence submitted by the National Oceanography Centre (MAR0028)**

I was delighted to give evidence to your Committee on the subject of marine technology in the context of Maritime 2050 on 25<sup>th</sup> May. I wanted to take this opportunity to expand on some of the areas discussed, and feed into wider areas within the strategy itself.

Firstly, I believe it was right to consider security alongside a conversation on technology. Much of the security issues we may face in an evolving ocean environment relate to cyber security. However, I wanted to highlight a very practical current security risk, and how autonomy may address this. Currently we know that the ocean is a contested space, with particular nations keen to assert power and influence. Automated vessels allow for a constant, at sea presence which may help to address this through developing a better understanding of what is happening already. Automation can have a very real positive impact on global security.

Secondly, a changing climate may have an impact on shipping routes. The melting of once permanent ice sheets may open up new shipping lanes. Autonomous underwater vehicles allow us the opportunity to map seabeds to determine any unseen dangers in doing so. The deployment of autonomy before people in such an environment allows for better planning, and a more physically safe environment.

Finally, a lack of defined quality standards for autonomy has led to a lack of easily identifiable and transferable skills. This means it is hard for companies within the sector to confidently recruit the skills they need. Once again this creates a safety issue, but also universal standards and skills would be a crucial element in the UK leading and exporting standards across the globe. As part of consideration of skills within Maritime 2050, this should be considered.

Thank you once again for inviting the National Oceanography Centre to give evidence. Our Marine Robotics Innovation Centre in Southampton, where we host a community of innovative companies developing marine technology, gives us a keen insight into developing trends and concerns of businesses, from small start-ups to established engineering companies. If the Committee would be interested in visiting this facility, we would be delighted to arrange this as it would give you an excellent opportunity to see first-hand how an innovation hub in the maritime sector operates and examples of its output;

something the committee were keen to explore by way of a question raised on this subject.

May 2022