News story: Dr Patrick Vallance takes up his appointment as Government Chief Scientific Adviser

Dr Patrick Vallance starts in his role as Government Chief Scientific Adviser (GCSA) today.

Great opportunities for UK from oceans

A major report looking at the future of the sea sets out the opportunities available for the UK to capitalise on its existing strengths in research, technology and the diversity of ocean industries.

<u>Press release: Great opportunities for UK from oceans</u>

The report Foresight Future of the Sea, published by the Government Office for Science identifies 4 major areas that can deliver opportunities for the UK by exploiting its science and innovation — an improved understanding of the sea, greater co-ordination, a long-term approach to decision making and the increasing global nature of the challenges we face.

Autonomous vessels, robotics and other emerging technologies are creating a new generation of economic activity. They will allow us to observe and map previously unexplored areas of the sea and improve our understanding of the marine environment. The increase in potential from autonomous vehicles means that areas such as data transfer, sensing, communication technology and improved data transfer between autonomous vehicles and satellites, will be of growing importance across the marine economy.

Science, industry and government all have a shared interest in a productive, healthy and well-understood sea. There are many opportunities for closer collaboration to achieve greater marine exploration, protection and economic output.

The marine environment changes over inherently long timescales and emerging industries require a long-term commitment in order to demonstrate success.

For these reasons, a long-term approach to decision making is important from both an economic and environmental perspective.

Professor Chris Whitty, Interim Chief Government Scientific Adviser said:

Our Foresight projects have an excellent reputation for tackling big strategic issues, and the Foresight 'Future of the Sea' project report is no different. This report highlights the key challenges and opportunities a changing ocean offers the UK based on extensive scientific evidence gathering.

Foreign and Commonwealth Office minister Lord (Tariq) Ahmad of Wimbledon said:

Both the opportunities and the challenges set out in this important report are global in scale and demand our urgent attention. The UK is rightly recognised as a world leader in the marine and maritime fields.

We must keep pushing our scientific understanding of the oceans, harness new technologies, and support commercial innovation. Most of all, we must ensure that governments keep pace with this changing environment. International collaboration remains crucial in order to realise the fullest benefits of our marine industries and scientists, for the UK and the world.

Professor Ed Hill, Executive Director of the National Oceanography Centre, said:

I am pleased to welcome the Government Office for Science's Foresight Future of the Sea report. As the report shows, marine science is a real UK strength — we are currently third in the world for the number of marine science publications. However, there is still more work to be done to achieve greater knowledge of the marine environment and the impacts of climate change. This will be critical for making a success of the future that this report anticipates.

The report outlines a number of recommendations to help the UK utilise its current expertise and technological strengths to foster trade links, build marine capacity across the world and collaborate to tackle climate change.

The UK is a global leader in the field of hydrography, the science of surveying and charting bodies of water, with the UK Hydrographic Office having primary charting responsibility for 71 countries around the world. The UK has an opportunity to improve its understanding of the sea by actively contributing to global ocean observations.

Countries around the world are recognising the growing importance of the sea and the need to take a strategic approach to managing marine interests. This report supports a new approach to UK marine and maritime policy which will guide our response to key upcoming decisions and deliver a set of shared principles.

Notes to editors

- The report can be found at <u>www.gov.uk/government/publications/future-of-the-sea</u> after 00.01 on Wednesday 21 March 2018.
- The Government Office for Science advises the Prime Minister and members of the Cabinet to ensure that government policies and decisions are informed by the best scientific evidence and strategic long-term thinking.

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Research and analysis: Computational modelling: Blackett review

Review of UK computational modelling capabilities.