

SIN Tokyo assists first NERC-JST Joint Call on Marine Sensors to better understand Marine Ecosystem

It is critical to better predict the impact of a changing climate and the effect on the ecosystem services provided by the oceans. With SIN Japan's help, the Natural Environment Research Council (NERC) and Japan Science & Technology Agency (JST) agreed to co-fund three marine sensor research projects. This was the first UK-Japan co-funding programme in the area of oceans research. The projects will help develop sensors to better understand high priority biogeochemical and biological essential ocean variables where there are gaps in current knowledge.



For the 2016 G7 Science Ministers Meeting hosted by Japan, the UK was represented by Sir Mark Walport (then Government Chief Scientific Adviser). The UK and Japan shared a view that a more expansive and effective ocean observation system would be required to monitor the processes and changes taking place in the oceans. Following the discussion, SIN Japan explained the capabilities of UK marine research to the Japanese ministries and agencies and facilitated a high-level meeting between the Department for Business, Energy and Industrial Strategy (BEIS) and Japan's Ministry for Education, Culture, Sport, Science and Technology (MEXT).

These efforts led to a formal letter exchange between Secretary of State Greg Clark and MEXT Minister (Secretary of State) Hirokazu Matsuno in November 2016 to confirm the launch of a joint call to promote ocean research collaboration, through facilitation by NERC and JST. SIN Japan supported NERC and JST in developing the joint call on "Marine Sensors: Proof of Concept" which was launched "in June 2017, with up to £300,000 per project.

The three UK-Japan joint research projects selected through the joint call are:

- "Development of in situ particulate radioactivity sensor" by National Oceanography Centre (NOC) and Tokyo University of Marine Science and Technology.
- "In situ holographic imaging and chemical spectroscopy for long term scalable analysis of marine particles in deep-sea environments" by University of Southampton and Japan Agency for Marine-Earth Science and Technology (JAMSTEC).
- "Alleviating the 'Sample to Sequence' Bottleneck Using Novel Microfluidic Lab-on-a-Chip Nucleic Acid Extraction Technologies" by NOC and JAMSTEC.

The research projects are expected to improve monitoring and biological analysis of marine environments, a key technological element to predict, understand and manage ocean processes and resources.

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