

A review of the uses of work-class ROVs for the benefits of science: Lessons learned from the SERPENT project

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Abstract: This paper reviews the contributions of underwater science in continuing to develop new technology to explore the marine environment and how collaborations taking place between the oil and gas industry and science are facilitating this process. A case study focuses on some of the results and highlights from the SERPENT Project. SERPENT (Scientific and Environmental ROV Partnership using Existing Industrial Technology) is a collaboration programme that was designed to make better use of remotely operated vehicle (ROV) technology and data available through links with marine operations in the oil and gas industry. Oil and gas exploration and production activities in the marine environment are increasing. The amount of global hydrocarbon reserves removed from below the seafloor is set to increase over the next 5–10 years with exploration heading into deeper, more remote waters, many of which have yet to be fully explored. The only way that these remote areas may be documented is through a working relationship with industry, with mutual benefit for both sides, and learning from technology that is already in place for the benefit of science.