



## THE ENVIRONMENTAL GENOMICS RESEARCH PROGRAM FOR OIL & GAS INDUSTRY APPLICATIONS

The IOGP Environmental Genomics Joint Industry Programme (JIP 34) was launched in June 2019 to coordinate research aimed at exploring the application of eDNA-based analyses in environmental assessments and monitoring of oil and gas offshore and onshore operations.

- Oil and gas companies undertake a variety of ecological assessments aimed at characterizing the environments in which they operate and monitoring changes within such environments.
- Available conventional approaches for ecological assessment, such as direct sampling, and visual/acoustic observation, tend to be time consuming, expensive, and often inaccurate and/or imprecise.
- Environmental DNA (eDNA) can be used to detect organisms and estimate biodiversity. This method can be faster, cheaper, and offer a different and/or more comprehensive information.
- Reduced CO<sub>2</sub> footprint: The use of eDNA-based environmental monitoring can contribute to a reduced CO<sub>2</sub> footprint by reducing the need for survey ships by using automated sampling
- Improved HSE: Use of eDNA-based environmental monitoring can improve HSE, occupational health and personal safety, by avoiding manual handling and microscopy of samples preserved in organic solvents and avoiding persons exposed to maritime operations by avoiding using survey ships

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