



FUGRO AUV PIPELINE INSPECTIONS

Fugro's autonomous underwater vehicle (AUV) pipeline inspection solution delivers asset insight within 24 hours. It offers maximum flexibility, with the option to operate AUVs from vessels of opportunity. Substantial volumes of data are processed automatically, providing valuable information delivered as a photorealistic 3D model of the pipeline. This solution reduces operational costs, project timescales, and risk, enabling clients to make earlier asset management decisions.

FASTER INSIGHT INTO PIPELINE INTEGRITY

Our automated workflow minimises human interaction and subjectivity, making offline data processing up to 80 % more efficient. A secure and encrypted communication link allows the AUV data to be uploaded directly to the cloud, where automated processing is triggered. This enables us to assess the condition of a pipeline within hours via our web-based environment, with five point and event listings available on the same day as the inspection.

SAFER OPERATIONS

Lowering health, safety, security and environment (HSSE) risk is vital to offshore activities. AUV pipeline inspections contribute to safer operations by reducing the number of offshore personnel required onboard. Our software programs perform quality control using bespoke review tools that are specifically designed to minimise human interaction.

KEY BENEFITS

Fugro provides accelerated insights into pipeline integrity with a scalable, cloud-based solution.

Our approach ensures:

- High-quality inspection data available within hours, reducing project timelines
- Faster survey results, enabling prompt overview of pipeline anomalies
- Reduced HSSE exposure through minimised offshore staffing
- Increased flexibility by having the option to operate the AUV from vessels of opportunity
- An auditable solution, increasing confidence in results

DIGITAL DELIVERABLES

The pipeline results are presented in a form of a 'digital twin'. This is a photorealistic 3D model of the subsea assets and integrates high-quality imagery of the pipeline and surrounding area. Combined with an overview of anomalies and inspection data, the cloud-based model provides significant insights for taking timely asset decisions.

HIGH-QUALITY DATA

Our AUVs are equipped with cutting-edge sensors and cameras, which take high-resolution imagery and create 3D point clouds. They acquire millimetre-accurate information, allowing for a thorough assessment of the integrity of underwater assets. This enables you to evaluate the lifetime of the pipeline with increased precision, reducing costs, risk, and asset management uncertainties.

CLOUD-BASED PROCESSING

Fugro's cloud-based software processes high volumes of multibeam data and imagery, identifying the pipeline position and generating pipeline listings. It delivers increased accuracy in results and project information.



AUV launch from vessel



High-resolution colour image captured during pipeline inspection

A FLEXIBLE, CLIENT-FOCUSED SOLUTION

Fugro delivers every phase of AUV pipeline inspection projects, from data acquisition to delivery. We can also deliver the solution from client-owned vessels already in the field, further reducing operational costs. Our integrated approach increases flexibility, ensuring that clients benefit from bespoke solutions that fulfil their needs.

THE FUGRO DIFFERENCE

Our breadth of expertise in offshore and onshore Geo-data makes us a trusted partner for businesses in multiple sectors worldwide. When you choose Fugro, you engage an operator with a holistic approach to AUV pipeline inspections, meaning that all aspects of the service meet excellence standards. We work with you to define timelines and bespoke solutions that best meet your needs, and we guarantee 24/7 operational assistance. Our continued commitment to innovation, research and safety ensures that we always deliver cutting-edge services for a safe and liveable world.