



Responsible oil and gas

Risers and flow lines



## RISERS AND FLOW LINES??????

## **OVERVIEW AND CHALLENGES**

Offshore production remains strategically important for international oil and gas companies. According to current estimates, it is likely to represent 30% of total oil and gas production by 2030 and 50% of reserves yet to be discovered.

The sector's players need to adapt to an oil market that is still very tense. They are seeking to **reduce the costs** of projects to make them viable, while **developing increasingly safe**, **eco-efficient and effective exploration and production technologies**.

In this context, IFPEN develops **new solutions** adapted to the prevailing conditions in the **offshore drilling and production equipment market**, as well as for **flow assurance**.

IFPEN forges partnerships with French and European **oil industry and oil-related sector players**, with a view to working with them to design and validate equipment and technological solutions for drilling and production, solutions they will subsequently market.

IFPEN's core activity in the field of **flow assurance** is aimed at providing its partners with a comprehensive **understanding of the physical phenomena occurring inside facilities**. This understanding also enables the development of appropriate monitoring solutions, thereby **limiting risks**, **ensuring safe operating conditions and optimizing production**.

IFPEN's high tech contribution addresses the most advanced needs of its industrial partners, in order to support their **competitiveness** in a field in which the **technical and economic challenges** are numerous.

## The challenges of offshore production:

- drilling and producing in ultra-deep water,
- extracting fluids in sometimes high-pressure, high-temperature and corrosive conditions.
- transporting fluids over long distances in a low-temperature environment without forming hydrate or paraffin plugs,
- pumping a mixture of water, oil and gas with highly variable gas contents,
- separating effluents (gas, oil and water) on the seabed.

The oil industry needs to have access to technologies enabling safe, cost-effective offshore drilling and production operations, against a backdrop of volatile, potentially low barrel price.

**75%** of new oil and gas volumes discovered in 2017 were located offshore.

Designing and validating equipment and technological solutions designed to provide access to offshore resources, while ensuring the delivery of safe, cost-effective drilling and production operations.

Our solutions Our networks Our strengths

## CONTACT



Stéphane Bertholin
Program manager
stephane.bertholin@ifpen.fr

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