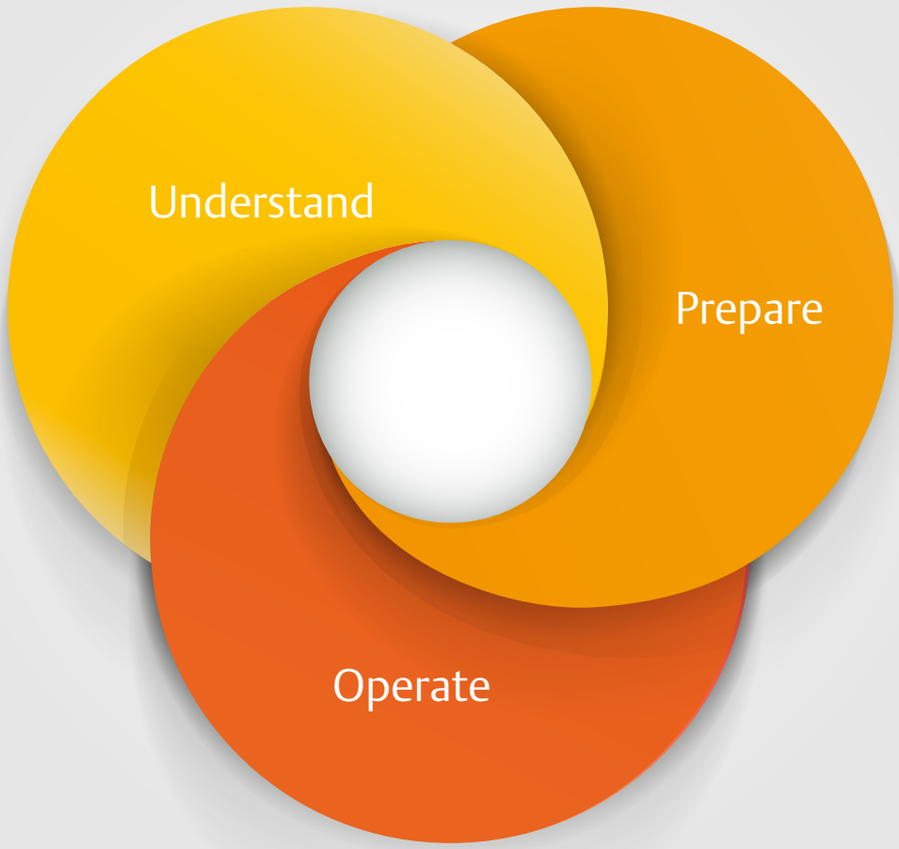
FIRST-FLOW™ *Delivery Assurance*

Deploy your subsea instrumentation with confidence.



Do the right thing at the right time.

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Understand

System Integration Testing

Avoid communication problems after instruments have been installed subsea.

Troubleshooting on equipment after subsea installation is more time consuming and will create downtime.

1. Communication & Integration

End-to-end communication tests between the Roxar and customer systems on one instrument. Communication tests with realistic load on the communication system. The purpose is to test and, if needed, tune communication and configuration parameters to eliminate/reduce timeouts and communication errors. Both EPC and Roxar specialists shall be present. The activity aims to reduce communication challenges after start-up and findings shall be evaluated on all systems.

2. Onshore Testing

3. Commissioning & Data Feed

Prepare

Site Receive Test

Ensure that the subsea instrumentation functionality has not been reduced during transportation or storage.

Functionality Test

System check of the subsea instrumentation following installation into the EPC system. This is a critical activity as it will reduce risk of delay and increased costs if problems are undetected at this stage.

Pre-Commissioning

Reduce risk of downtime after subsea deployment.

During pre-commissioning we ensure that the instrument is fully functional. Calibration checks are performed and all configuration parameters are entered (latest PVT data, etc.) before subsea deployment

Following each transport leg and storage period, a visual inspection of the instrument takes place including a check on shock indicators followed by verification of the meter's functionality. Furthermore welding of the instrumentation and the insulation process is supervised by Roxar personnel. A full instrument functionality test is completed both prior to and after the instrument is welded into the system.

Operate

Commissioning

Ensure trouble free start-up with focus on dynamic performance and redundancy.

Commissioning and start-up according to the procedure including checking of the dynamic performance, redundancy system, communication and measurements.

Start-up & Data Feed

Checking of communication & measurement output.

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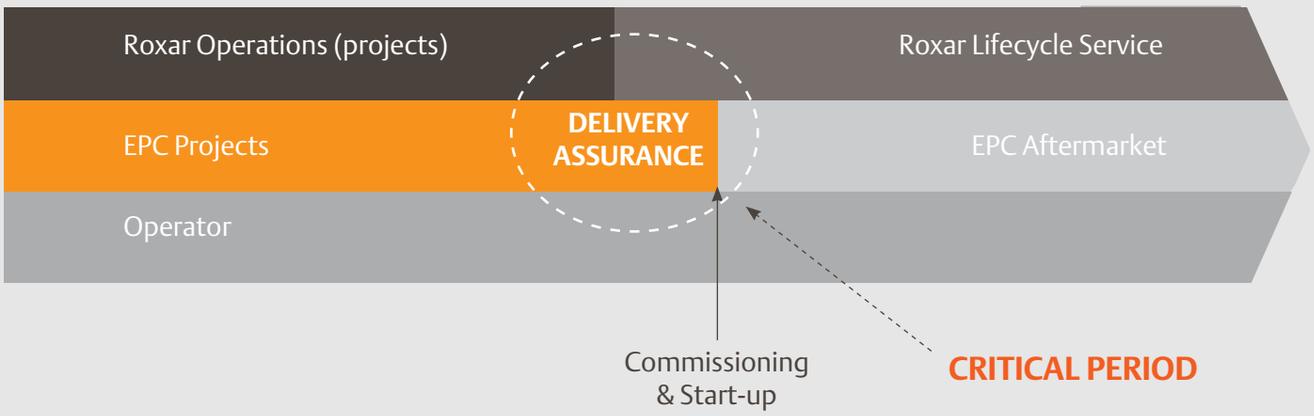
Achieving first oil and first-flow can be a long and hard process. Close cooperation between Roxar, the EPC and the Operator is key to the successful deployment of subsea instrumentation.

With this in mind, Roxar has developed a support service – FIRST-FLOW™ Delivery Assurance – that will leverage the expertise and knowledge of all parties to ensure the 100% functionality of subsea equipment at start-up. It is through correct integration and a complete understanding of what it takes to come on-stream that operators will enjoy full functionality of their equipment – the first step towards achieving maximum value from their technologies and thus driving profitable and sustainable growth in their production operations.



Key Deliverables for FIRST-FLOW™ Delivery Assurance:

- A dedicated Roxar Service Project Manager who will be the one-point service contact during the process of instrumentation and service delivery until first-flow. The Roxar Service Project manager will be an integral part of the planning and execution of test programmes and work packages, and will ensure a seamless handover from manufacturing to the Roxar Global Service Team.
- A Roxar Service Engineers package will provide assistance and input for and during site integration testing, site receive testing, and instrument functionality testing. They will also provide assistance with the integration of the instruments into the EPC system, pre-commissioning, commissioning, start-up and data feeds.
- The FIRST-FLOW™ Delivery Assurance Report will generate an ongoing status overview including work that has been completed and work outstanding.
- At each point when work on the instrumentation has been completed by Roxar Service Engineers, a Service Report will be produced with details of the work completed. A Roxar Service Project Manager will compile service reports and provide an overview of the entire integration, commissioning and start-up process, once the instrumentation has been deployed subsea.
- Proper documentation and history tracking of the instruments will strengthen flow assurance and reduce risk.
- Following start-up and data feed, a Roxar Service Project Manager will ensure a proper handover to Roxar Lifecycle Services and local support teams.

Roxar Zector® Technology

Roxar focuses on technology development, product development and integration. This ensures a closer standardisation between solutions and the transferring of technoogy to different applications. The Zector® Technology is one such platform that will form the basis for future multiphase metering developments.

Through Zector® technology that includes signal processing, electrode geometry and new field electronics, operators can look forward to accurate real-time, flow measurement and a complete characterisation of flow patterns.

Roxar Zector®

END-TO-END QUALITY AND REDUCED RISK

We understand the importance of your investment.

Contact us for more informaition.

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