

# Lifecycle solutions for oil & gas installations





A lifecycle solution with Wärtsilä ensures certainty of reliable operations by transferring the responsibility of vessel maintenance to Wärtsilä. Our lifecycle solutions offer measurable and guaranteed benefits in a safe, reliable and environmentally-friendly way. These include improved availability and performance, ensured efficiency and financial predictability, cost efficiency, as well as maximising the lifetime of your installation.

### Safe operations – optimised maintanence planning based on equipment data

Optimised maintenance is achieved by using vessel data collected from operating crew and periodic inspection reports to form the basis of your maintenance plan. The analysis is provided by Wärtsilä's Expertise centre, compromising of our 'expert insight' and 'asset diagnostic' capabilities, we detect anomalous performance, to immediately identify early warning signs that maintenance is due to avoid breakdowns and unnecessary downtime. Thus, improving operational safety by ensuring that equipment condition is always known. Making it possible to address emerging issues before they escalate, compromising the safety of the operation.

### Maximised uptime through dynamic maintenance

A lifecycle solution with Wärtsilä ensures optimised operations, and that agreed performance levels are reached and maintained throughout the asset lifecycle.



To maximise uptime and minimise off hire days, maintenance planning is done according to actual equipment condition instead of a traditional hour-based schedule. Condition-based maintenance is built on continuous performance monitoring, measuring and analysis that make it possible to evaluate and predict equipment condition. This is a key element of our Dynamic Maintenance Planning (DMP™) concept, that allows for extended and coordinated maintenance intervals, while keeping the installation running at optimal levels, with optimised fuel economy and maintenance costs. By grouping the maintenance of various equipment and systems into a dynamic maintenance window, that also fits in with your other business needs, it is possible to then decrease the amount of maintenance breaks and improve operational availability.

### Power solutions for normally unattended offshore installations

As cost pressures in offshore operations continue to increase, there is a growing demand for power solutions that do not require inspection and maintenance. The Wärtsilä power solution for normally unattended installations is a cost-effective, safe and reliable powergeneration concept that is suitable for a wide variety of normally unattended installations (NUIs)

#### **KEY BENEFITS**

- Provides operation time without planned onboard maintenance activities
- Lower OPEX due to reduced need for operational personnel on board
- Increased efficiency, reduced emissions and improved fuel flexibility with duel-fuel engines
- Improved reliability and safety using condition monitoring and analysis
- Lower LTIFs (lost Time Incident Frequency) due to fewer man hours on site



#### Long term cost predictability and shared goals

Entering a lifecycle solution with Wärtsilä means agreeing on and working towards shared goals measured by defined performance indicators. A lifecycle solution with fixed prices also means predictable costs for maintenance planning and inspection, technical support, spare parts and work, as well as training.

#### **KEY BENEFITS**

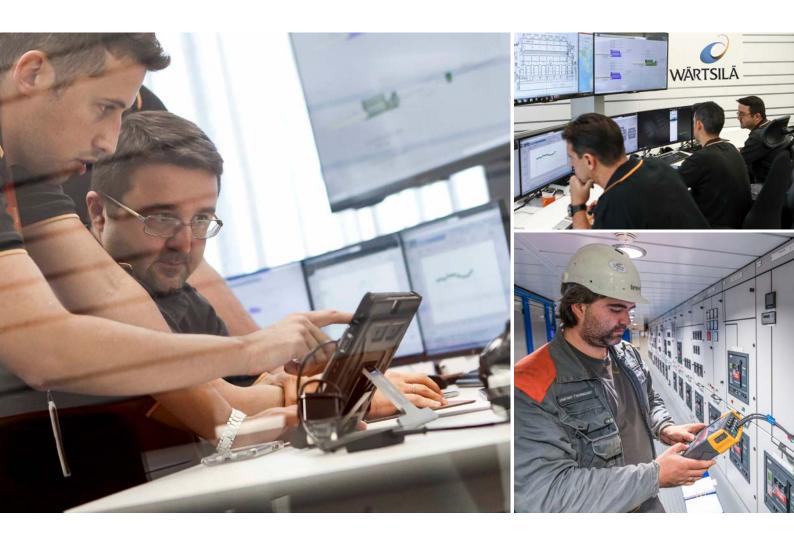
- Safe operations
- Optimised operation/performance
- Ensured performance (availability/reliability)
- Financial predictability
- Partnership with common goals
- World class technical expertise
- Global and local coordination ensuring availability of competent service experts

#### **On-board remote operational support**

Wärtsilä provides constant support for your vessel and installation projects. We ensure you are constantly connected to the internet, so your vessels operational performance can be constantly monitored. Upon your request, Wärtsilä can use this operational data to assist in operational issues and advise you on the necessary steps to making corrective adjustments. Wärtsilä Online Services enables advanced support and immediate response from Wärtsilä to ensure the vessel's safe operation regardless of its location, reducing the need for unscheduled onboard visits.

## Global and local coordination to find you the right expert

We have deliciated global and local teams with the expertise to support no matter where you are located. Our lifecycle solutions teams include a dedicated contact who coordinates the maintenance work to ensure a fast, efficient and timely delivery/completion. This includes the coordination of up-to-date documentation, consisting of work cards, spare part lists and workforce scheduling.



Forming the basis for arranging spare part logistics and global coordination of competent service experts and crews. Through our service and workshop network, we can provide access to 4,500 field service professionals in 160 locations in 70 countries.

#### **Dedicated technical expertise and support**

The technical expertise and support that we can provide includes analysis and audits, with reports designed to comply with classification society requirements, obsolescence management, latest design and upgrades information, as well as improvement suggestions for your Oil & Gas installation requirements. This means we not only conduct a full analysis of your vessel but ensure we identify current and future opportunities to optimise your vessel further, so your business meets stringent regulations both today and in the future.

#### **OEM** spare parts and consumables

All maintenance work done by Wärtsilä is done using highquality OEM spare parts and consumables. This is a critical factor in maintaining optimal performance and reliability throughout the installation's lifecycle. As an OEM, we have full control over component design and material durability, and all our parts are delivered with a full warranty.

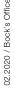
#### **Service guarantees**

As part of the solution, we agree on certain service standards that we also offer a guarantee for.

- Extended warranty
- Availability/reliability guarantee
- Parts delivery guarantee
- Duration guarantee for scheduled maintenance
- Workmanship warranty 12 months
- Response time guarantee

#### Why choose Wärtsilä?

Wärtsilä is an experienced operator, with a proven track record in operation and maintenance services for all companies involved in the development of an offshore Oil & Gas block, from drilling, production, support/supply vessels, construction vessels, pipe-lay to seismic. Wärtsilä's extensive global service network and efficient spare parts logistics ensure that you can focus on your core business, resting assured that your maintenance needs can be optimally met, whenever and wherever.





#### www.wartsila.com