# Services - strong growth through broader offering





# WÄRTSILÄ SERVICE + CISERV

WÄRTSILÄ SERVICES



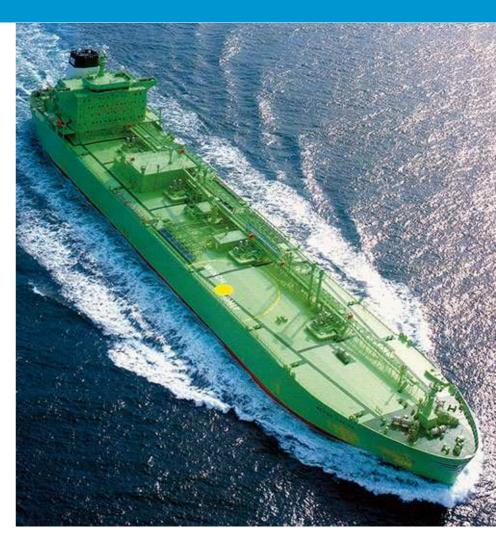
## **Services**





# **Ship services**

- Our Ship Services provide maintenance and repair services for ships equipment:
  - In-situ machining
  - Repair and retrofit
  - Hull repair and rebuilding
  - Equipment service:
    - Boilers
    - Heat exchangers
    - Pumps
    - Hydraulic equipment





## **Power & Industrial services**

- Our Power & Industrial
  Services provide maintenance
  and repair services:
  - Repair, retrofit and rebuild
  - Fuel conversions
  - Environmental solutions
  - Equipment service:
    - Boilers
    - Heat exchangers
    - Pumps
    - Hydraulic equipment





# **Engine services**

- We provide complete engine and related systems services globally covering both Wärtsilä and other engine makes.
- Our OEM services include:
  - Basic support
  - Operation support
  - Performance optimizers
  - Repair services
  - Environmental solutions
  - Online support





# **Engine services – OEM brands**

#### Our OEM brands include:

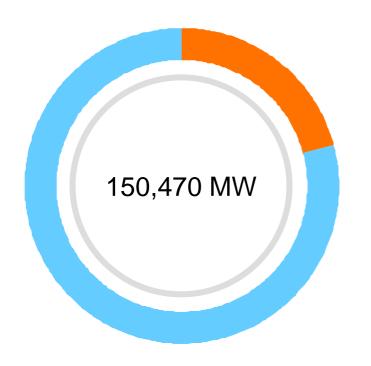
- Wärtsilä
- Sulzer
- DEUTZ marine engines
- Nohab Diesel
- Wärtsilä Diesel
- GMT
- Wichmann
- SACM
- Stork SW Diesel
- Moteurs Duvant Crepelle
- Nordberg
- Poyaud
- Bolnes



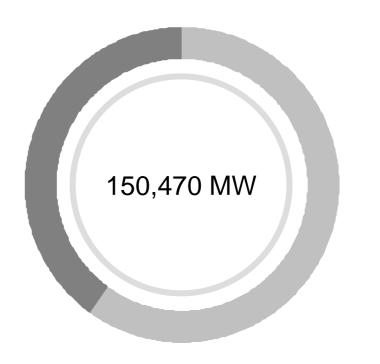


# Active engine base 150 GW

Ship Power Plants 79.2% 20.8%



Low-speed Medium-speed 44% 56%





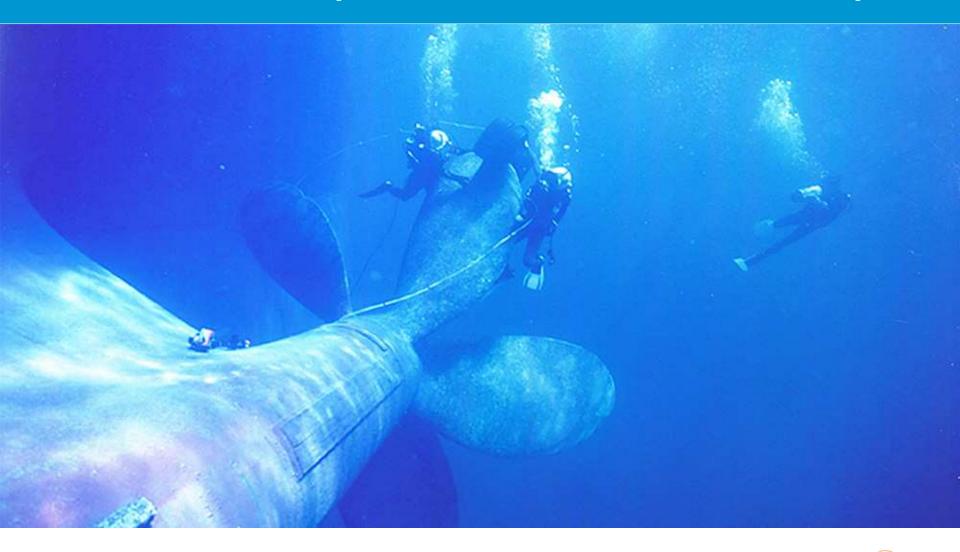
# **Propulsion services**



- We provide complete propulsion systems services globally covering both Wärtsilä and other makes.
- Our OEM services include:
  - Basic support
  - Operation support
  - Performance optimizers
  - Repair services
  - Online support



# **Propulsion services – underwater repair**





- Service, repair and design engineering for:
  - Power, diesel electric propulsion, steam and gas turbines and vessel automation systems
- Men
- Electrical systems
- Control and automation systems
- Switchboards and control desks
- LNG/FPSO conversions





- Service, repair and design engineering for:
  - Installation and commissioning
  - Maintenance
  - Repair
  - Reconditioning
  - Turn-key projects management





Expertise acquired from:













#### Ciserv products & services

- Workshop services
- Control and automation services
- Switchboards
- Field service
- In-situ balancing
- Site audits

#### Gerhardt products & services

- Solutions for:
  - Engines and turbines
  - Lubrication systems
  - Control systems
  - Ignition systems
  - Starting systems
  - Turbochargers
- Services:
  - Maintenance, repair and reconditioning
  - Retrofit and engineering
  - Software and programming
  - Field service and training

#### **Total Automation products & services**

- Technical sales
- Whessoe
- Control panels
- Gauging systems
- On-shore service
- Voyage repair
- Commissioning
- Design and engineering

#### Aker Kvaerner products & services

- Power drive
- Electric propulsion
- H-M-L Voltage Equipment and UPS
- Control systems
- Vessel automation
- Design and analysis



# Automation services – FPSO conversion projects





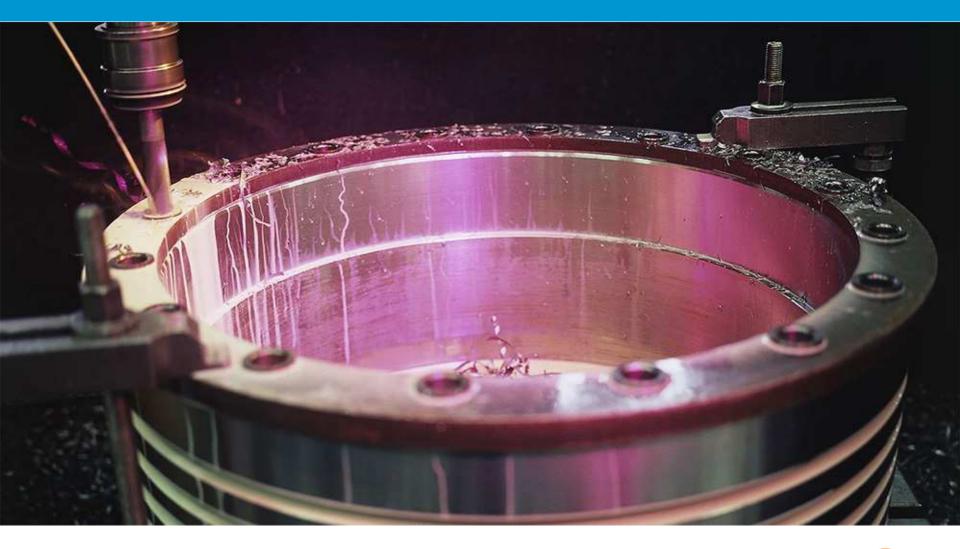
# **Reconditioning services**



- Equipment reconditioning & reconditioning of 2-stroke and 4-stroke engine components.
- Achieve maximum service life of equipment and components.
- Cost effective reconditioning methods applying the latest technology.
- Exchange pool services with reconditioned components directly from our global stocks.



# **Reconditioning services – components**





# **Training services**



- Wärtsilä Land & Sea Academy (WLSA)
- Global training centres in Philippines, Finland and USA
- Training programmes cover operation, maintenance and safety issues, competence and career management systems.
- WLSA partnering with specialist training providers
- More than 15,700 course man-days/year
- Advanced e-learning systems



# **Training services – Competence & Career management**



- Complete solutions for:
  - Professional Career Path (PCP) planning
  - Competence tracking services
  - Utilizing human capital and management systems



# **Operations & Management**



- Wärtsilä manages all aspects of operating an installation including administrative, financial, human resources and technical.
- An O&M agreement focuses on performance, profitability and maximizing equipment lifetime and frees owners to concentrate on their core business.
- Wärtsilä currently operates 150 plants with an aggregated output of some 2,800 MW.

## Worldwide service network

Wärtsilä is close to its customers through subsidiaries in roughly 60 countries - and a global network of some 7,800 people. WÄRTSILÄ Wärtsilä's Capital Markets Day 2006 21

# Wärtsilä Services 2010





## **Services Direction 2006 – 2010**

