

Klasseselskapenes rolle i overgangen til “Så sivilt som mulig så militært som nødvendig”

Programkonferanse sjøsystemer 2022

An independent assurance and risk management company

157
years

~12,000
employees

100,000
customers

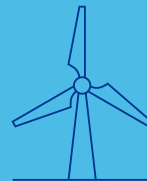
100+
countries

5% R&D
of annual revenue

**Ship and offshore
classification and advisory**



**Energy advisory, certification,
verification and monitoring**



**Management system
certification, supply chain and
product assurance**



Software, platforms and digital solutions



The world's leading ship and offshore classification society

Global reach

Survey stations in 67 countries and expertise in all ship and offshore segments

~11,000

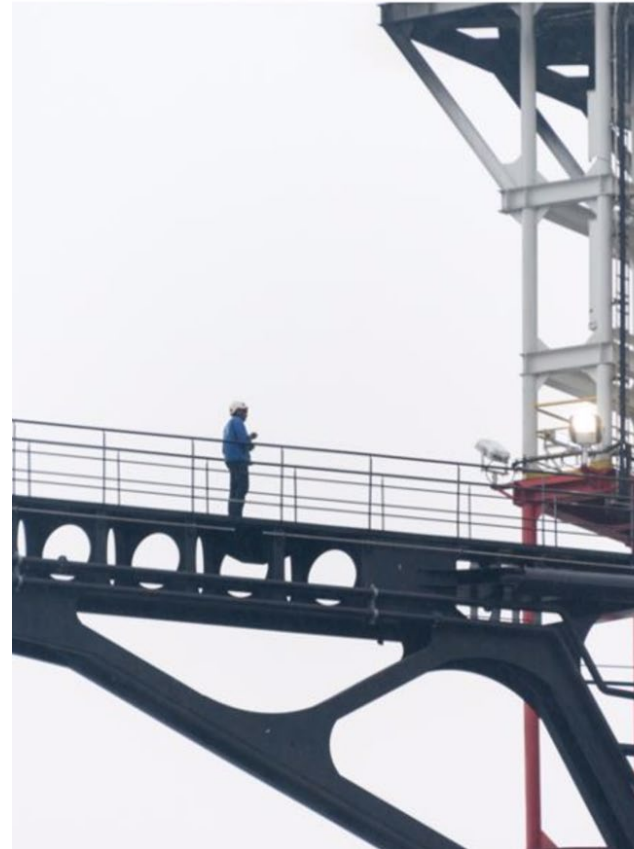
ships and mobile offshore units in DNV Class

~20%

market share in Gross Tonnes of the world's classed ships and mobile offshore units

Quality

Consistently among the top ranking societies in Port State Control performance



Enabling our customers and their stakeholders to manage risk and complexity with confidence



Certify, verify and test

against standards, specifications and regulatory requirements



Qualify and assure

new technologies, systems, data, platforms, supply- and value chains



Give expert advice

on safety, technology and commercial risk, and operational performance



Co-create and share

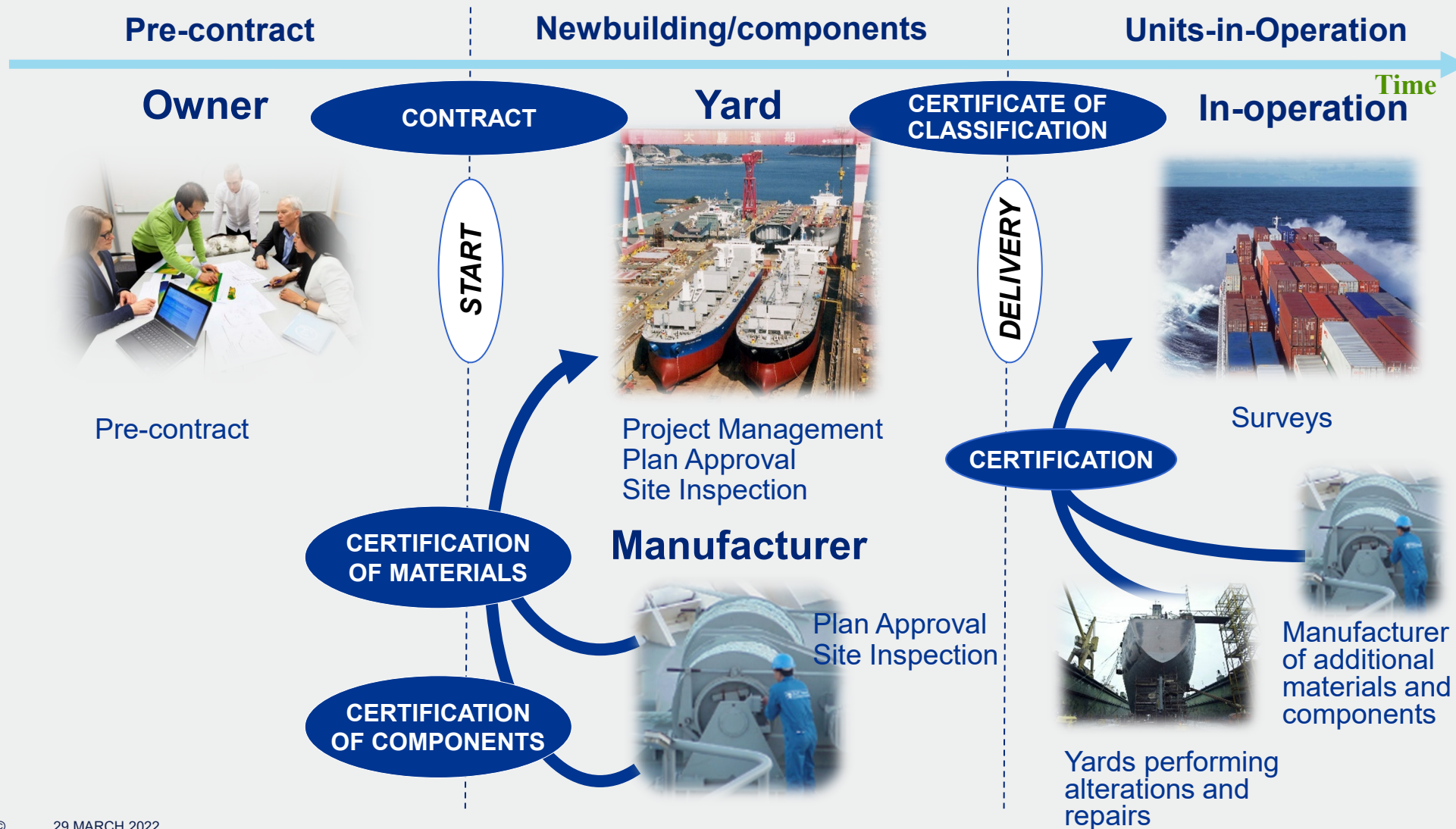
new rules, standards, software and recommended practices

Service areas and associated service lines



Service area	Associated service lines
Classification	Mandatory class notations for main vessel types Optional class notations Classification support Certification services
Statutory	Safety Environment Management systems Maritime security
Advisory	Control systems and cybernetics ECO solutions Hydrodynamics Lifecycle management Mechanical & systems engineering Noise & vibration Safety, risk & reliability Shipping advisory Structures
Academy	Public courses Tailor made courses Advisory services on establishing and improving training programs Conferences
Digital Solutions	Ship management systems Ship operations systems Veracity platform

Classification Process



Certification of Materials and components (CMC)

Scope:

Verify compliance with (one or more of)

- Rule requirements
- Standards
- Project specification
- Purchase order

Issue certificate to document compliance

- Materials
- Corrosion protection
- Welders
- Welding Procedures
- **Components**
- **Systems**
- Approval of Manufacturers
- Additive Manufacturing (AM)

DNV Type Approval

Confirms compliance with rules for standard designs and/or routinely manufactured, identical components.

Applied to:

- materials
- products
- groups of products
- Systems

Activities:

- survey (initial/renewal)
- type testing
- design assessment
- issuance of a TA certificate

DNV surveys and certificate activities in 2021

- 35 000 surveys of ships
- 150 000 product certificates issued, some of them covering multiple components/equipment
- 30 000 type approved components/equipment



Standardized systems and components



- Development and adaptation of new technology is going faster in the maritime industry than ever before
- Civilian standardized systems and components are often the result of multiple stakeholders working together bringing a wide spectre of expertise and perspectives and thus ensuring the quality of the end product
- Wide adaptation give valuable feedback when it comes to safety issues, maintenance, and further improvement

Role for class

- Extensive experience certifying and surveying standardized solutions across multiple ship types operating in different environments, having different owner/operator
 - “What’s working and what’s not”
- Through experience feedback from surveys we can give guidance on design issues to manufacturers, best practice maintenance to operator etc
- Based on our experience from civilian shipping, we can assist navies deciding on the necessity of special navy requirements for ship safety systems and components



Thank you for your attention

www.dnv.com

