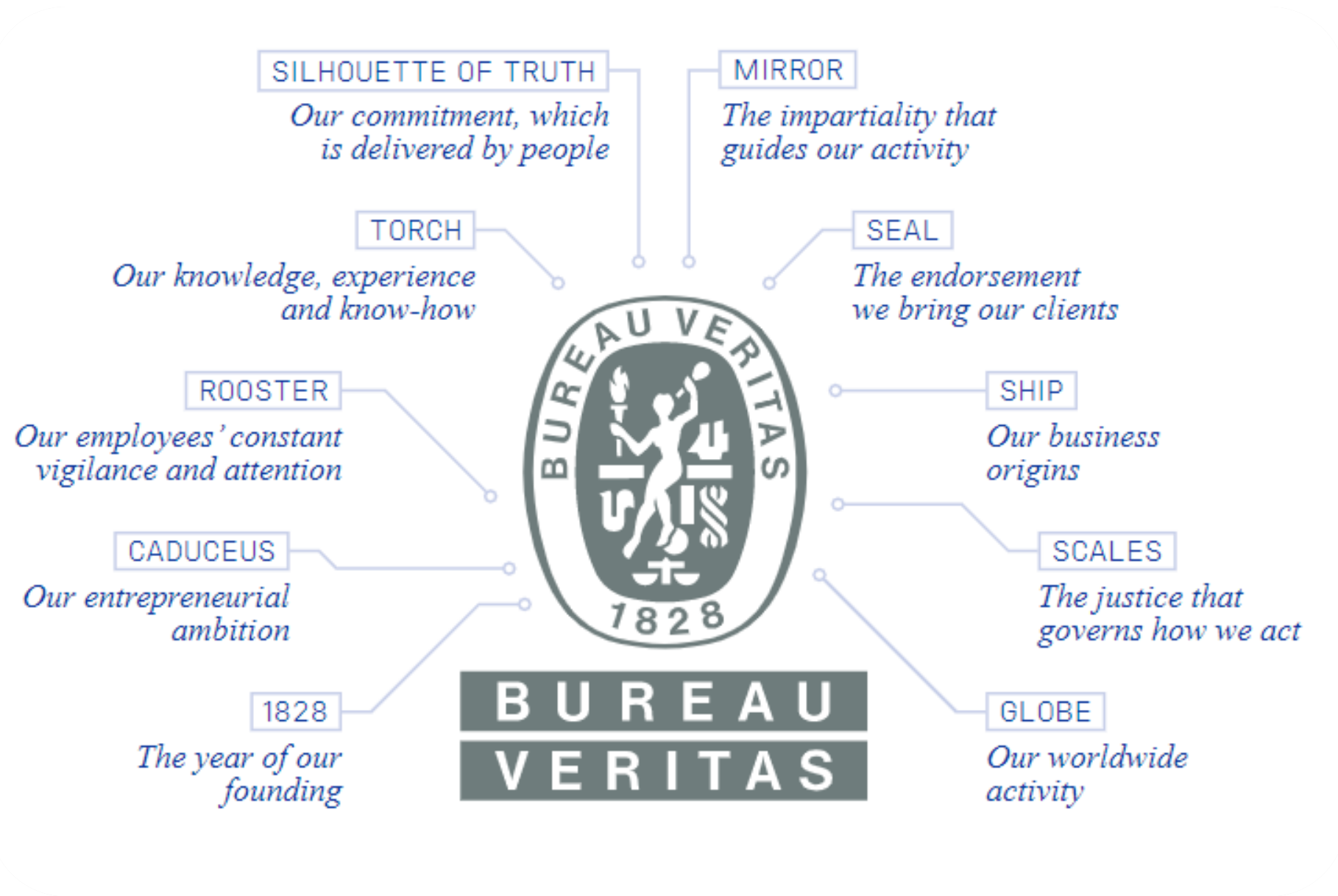




BUREAU
VERITAS

SHAPING A BETTER MARITIME WORLD

IT'S WHAT UNITES US



WHO WE ARE

- Bureau Veritas Marine & Offshore is one of the world's leading ship classification societies and offshore safety and verification bodies.
- we're part of Bureau Veritas, a world leader in testing, inspection and certification services with over 78,000 employees in more than 1600 locations
- Known for our integrity, impartiality and technical excellence.
- A successful, profit-making business which relies on the skills, knowledge and experience of its employees – professionals and experts in their fields.

OUR MISSION

At Bureau Veritas Marine & Offshore we have a guiding mission: **Shaping a better maritime world**. We're driven to keep people and assets safe and to preserve our blue planet for future generations.



**MATTHIEU
DE TUGNY**

Executive Vice President
Bureau Veritas Marine & Offshore

Class Originated to protect the interests of marine insurers. We have come a long way since our founding in 1828 – and the development of class rules and regulations. We evolved to help ensure safety: the safety of people and the environment. Now we need to help ensure the protection of the oceans, not just by preventing accidental pollution of the oceans, not just by preventing accidental pollution but being active in nurturing as well as protecting the future and working towards a better maritime world.

THE LARGEST TIC BODY INVOLVED IN MARINE CLASSIFICATION

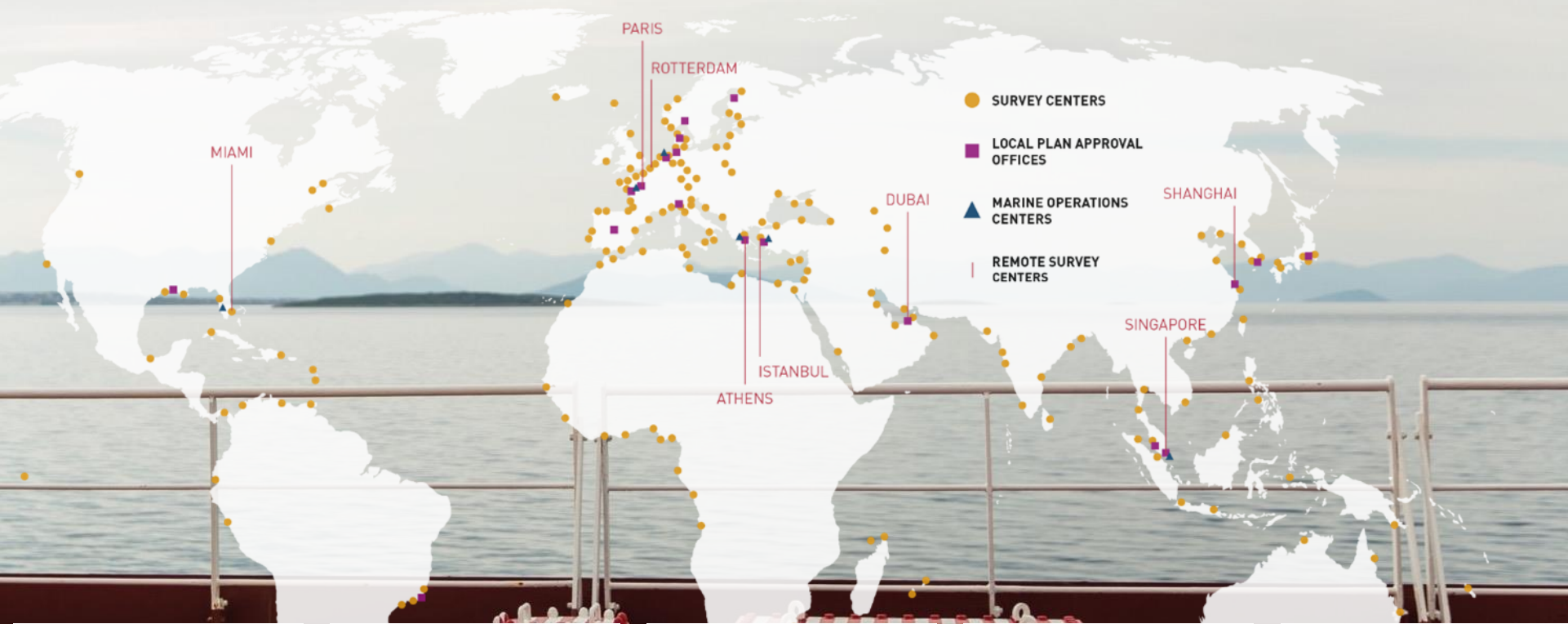
78,000
EMPLOYEES

400,000
CLIENTS

1,600
OFFICES AND
LABORATORIES



ON HAND WORLDWIDE TO MEET OUR CLIENTS' CHALLENGES LOCALLY



2,650
M&O experts

180
Survey centers

19
Local plan Approval offices

6
Marine operations Centers

8
Remote survey Centers



1821

Violent Storms raged across Europe causing some 2,000 shipwreck and 20,000 deaths



BUREAU VERITAS

was founded in Antwerp (Belgium)

1851

Bureau Veritas Establishes the classification “on term” and publishes first Rules for the Construction and Classification of **Wooden Vessels**



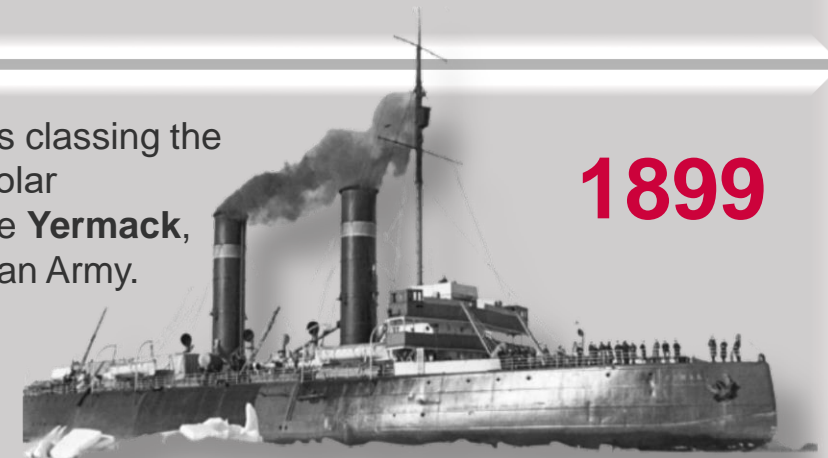
1828

1886

Bureau Veritas Classed the “**Gluckauf**”, the first steam-driven ocean-going tanker in the world

Bureau Veritas classing the World’s first polar icebreaker: the **Yermack**, built for Russian Army.

1899



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Bureau Veritas sets up
a service of
control of materials

1910

1962

Bureau Veritas classed the first ocean-going ship for transport of liquefied gas, the “Beauvais”. We also classed the first membrane LNG Carrier, the 120,000m³ “Ben Franklin”.

Pioneer in LNG Transportation



The World’s First FSRU - **2005**

Bureau veritas supported the introduction of floating gas terminals, Classing the first floating storage & regasification unit (FSRU), the “EXCELSIOR” for Exceletrate Energy in 2005.

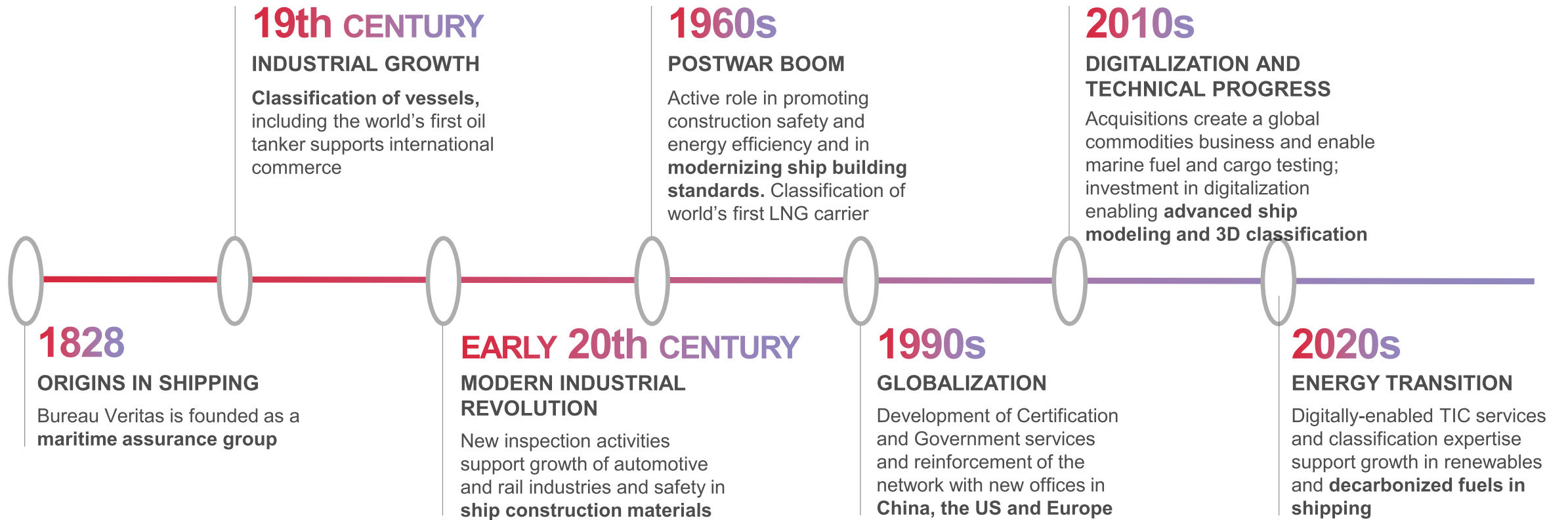


TODAY

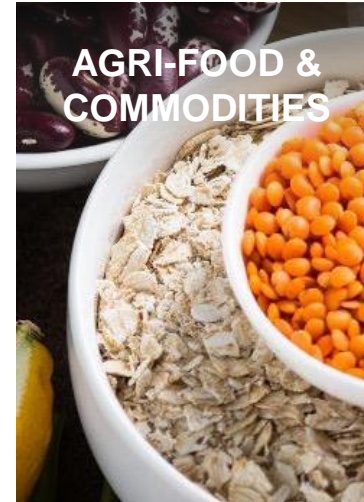
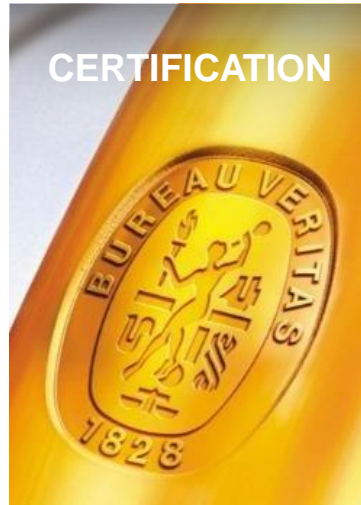
- More than 11,000 ships worldwide sail under BV Class.
- We expertise in supporting the construction of FRSO, as well as the conversion of VLCC & smaller tankers to floaters. Our Veristar AIM3D digital twin model enables us to track the condition of these offshore assets throughout their life.
- Bureau Veritas is playing a key role in global LNG supply chains, thanks to our dedicated rules & Expertise gained in Flagship projects. These includes – MOL FSRU Challenger , the largest FSRU to date at 263,000m³ and LNG Bunkering vessel, the ENGIE Zeebrugge.



200 YEARS OF INNOVATION STARTED WITH SHIPPING



CONTRIBUTING TO TRANSFORM THE WORLD WE LIVE IN WITH LEADERSHIP POSITIONS IN MAJOR INDUSTRIES



BUREAU VERITAS MISSION SHAPE A WORLD OF TRUST

We help our clients innovate to **meet challenges** in quality, health & safety, environmental protection and social responsibility.

As a Business to Business to Society company, we are dedicated to **building trust** between client companies, public authorities and consumers.

SHAPING TRUST IN GLOBAL MARITIME AND ENERGY INDUSTRIES



A LEADER IN SHIP CLASSIFICATION

Our surveyors are on-hand in major ports worldwide to ensure the safety and compliance of all types of vessel and offshore structure.



PARTNERING OFFSHORE ENERGY PROJECTS

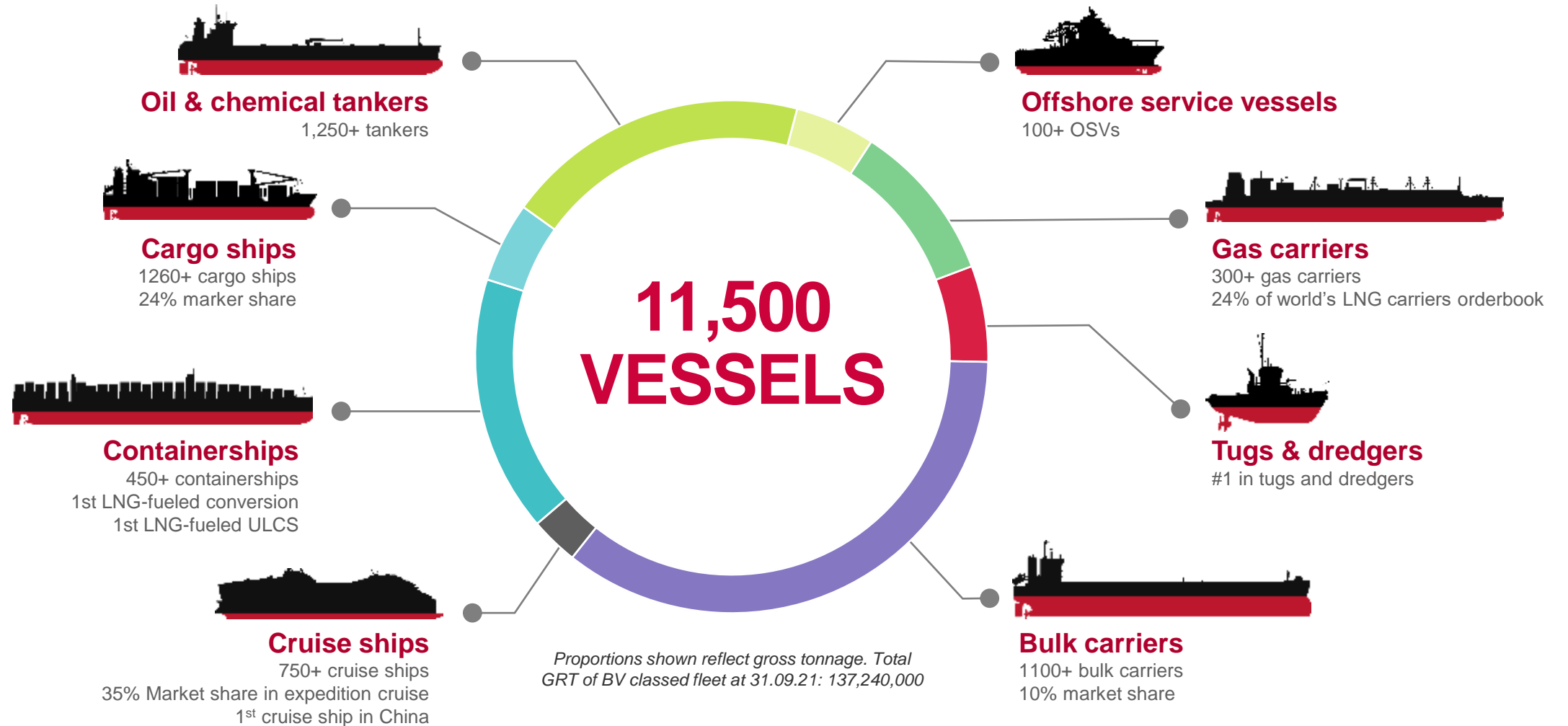
We support the world's major energy operators with classification of innovative designs and verification of offshore structures and equipment.



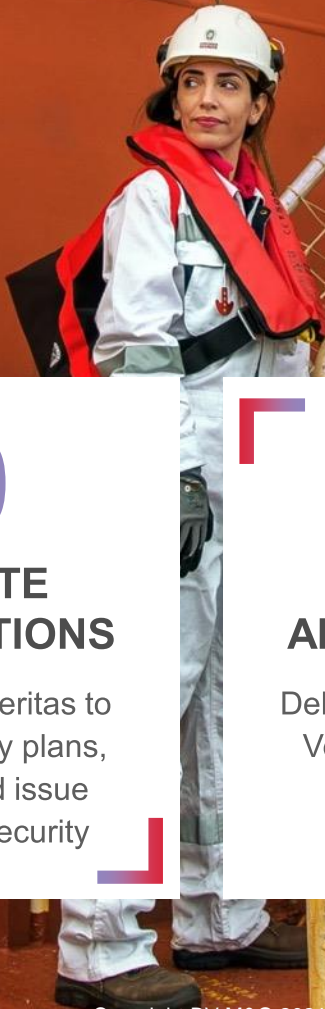
BEYOND COMPLIANCE

As the technical advisory component of Bureau Veritas Group, BV Solutions M&O responds to all marine and offshore energy challenges. Its core activities cover engineering & technical advisory, asset management and assurance solutions.

A DIVERSE FLEET DEMONSTRATING EXPERTISE IN ALL TYPES OF VESSELS



HELPING CLIENTS AND PUBLIC AUTHORITIES PROTECT CREW AND ASSETS



**200
YEARS**

**OF CLASSIFICATION
EXPERTISE**

100

**FLAG STATE
ADMINISTRATIONS**

Recognize Bureau Veritas to approve ship security plans, perform audits, and issue international ship security certificates

130

**FLAG STATE
ADMINISTRATIONS**

Delegate authority to Bureau Veritas to verify MARPOL compliance

150

**FLAG STATE
ADMINISTRATIONS**

Trust Bureau Veritas to perform statutory surveys and audits on ships and offshore units



**BUREAU
VERITAS**

OUR BEST ASSET IS OUR TRUSTMAKERS

WE PROVIDE STRONG TECHNICAL EXPERTISE TO DELIVER A BEST IN CLASS CUSTOMER EXPERIENCE

EXPERTS

Our best asset is our talent pool of marine engineers, naval architects, scientists, mathematicians and structural and materials specialists.

CUSTOMER-FOCUSED

We build long lasting relationships to enable clients to keep their crew & assets safe.

SOLUTION-ORIENTED

We work with our clients to resolve challenges safely. We constantly develop new services & solutions to support clients.

RESOURCEFUL

As a business to business to society, our rules continually evolve, based on our real-life work with clients.



BUREAU
VERITAS

BUREAU VERITAS OPENS REMOTE SURVEY CENTER IN DUBAI

BV - Dubai first piloted remote survey in Feb 2020 and their popularity with customer has increased ever since, with customer benefiting from greater flexibility in such challenging operating climate.

We believe remote surveys represent a long- term opportunity to:

- Reduce Risks
- Provide Flexibility
- Reduce Environmental





BUREAU VERITAS OPENS REMOTE SURVEY CENTER IN DUBAI

Clients can create account on [#veriSTAR](#) info enabling ship-owners to digitalize all remote survey processes and client interactions from their initial request up to the issuance of the report.

Submitting their survey request along with the supporting documents (BV will then review the request to ensure all criteria are met, including flag and class approvals)

Clients then have the option to interact within a mobile-friendly environment to easily capture and transmit all required videos, images and documentation while onboard in both a connected and disconnected environment that sync seamlessly.



SPECIAL PROJECTS

Planning Office : Review and Approval for vessels

MAJESTY 175 – GULF CRAFT

RODOPI 1 – Crane Pontoon

MATERIALS & EQUIPMENT CERTIFICATION

FPSO projects for SMB Offshore for vessels:

ALMIRANTE TAMANDARE (BUZIOS -7)

MERO 4 - ALEXANDRE DE GUSMAO

VESSEL CONVERSION PROJECT

Boskalis conversion work – Transforming a ship into Bokalift 2 crane vessel

FSO Pargo Conversion Project For Perenco

ISPO CERTIFICATE OF COMPLIANCE

P&O Maritime

Port Facility Security Assessment and Plan

Al-Zour LNG Import Terminal, KUWAIT

Khalid Faraj Marine Shipping, Abu Dhabi

OUR EXPERTS HELP CLIENTS SOLVE COMPLEX TECHNICAL PROBLEMS, MEET REGULATORY REQUIREMENTS, GO BEYOND REGULATIONS WHEN NECESSARY, AND OPTIMIZE SAFETY AND PERFORMANCE. AS A CLASSIFICATION SOCIETY, WE BRIDGE THE GAP BETWEEN REGULATIONS AND THE NEEDS OF SHIPOWNERS AND OPERATORS. BY SETTING RULES FOR FISHING VESSELS, AND ENSURING THEY ARE MET, WE CONTRIBUTE TO SAFETY AT SEA.

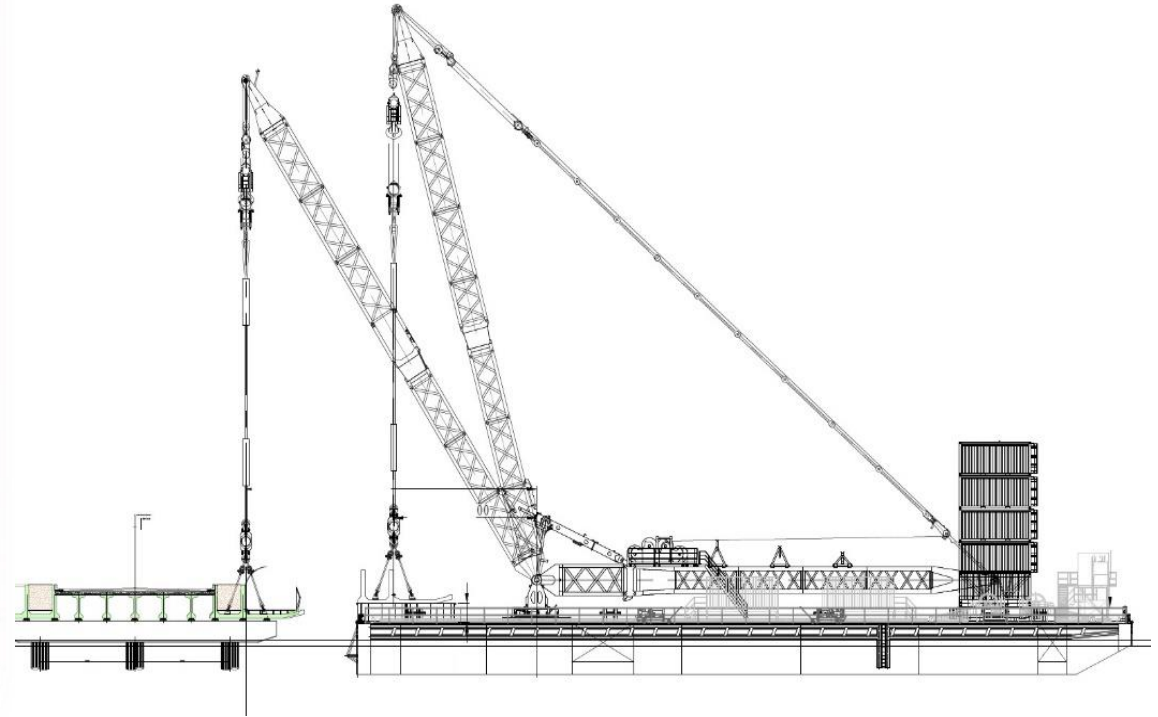
PROJECTS

Our longstanding projects include **MAJESTY 175 – GULF CRAFT**, which focuses on the review of world largest commercial yacht made from composite materials.

Using advanced composite materials, the Majesty is the world's largest mega yacht built as a MCA-LY3 yacht over 500 GT (gross tons)



RODOPI 1 – Crane Pontoon
BV Team reviewed pontoon fitted with crane working load 415 tonn
CLIENT: ARCHIRODON
PROJECT: SHURAYRAH BRIDGE
TITLE: GENERAL ARRANGEMENT MTC ON RODOPI 1



FPSO Equipment PROJECTS – SBM OFFSHORE

The market for floating production, storage and offloading (FPSO) vessels has exploded over the last few years, as the Oil & Gas industry has grown more dependent on ultra-deepwater offshore activity. Our team of professional from BV Dubai office are involved in supervising the SKID PACKAGE build and certifying a Hydrocarbon Dew Point Package for Gas Treatment

PROJECT 1: FPSO in CMHI SWS for SMB Offshore (Equipment involving BV UAE supervision is being built in STS S/Y OMAN)

VESSEL 1: ALMIRANTE TAMANDARE (BUZIOS -7), is the sixth full-field/permanent production unit planned to be deployed at the giant Búzios oil field, on Transfer of Rights under the Production Sharing regulation.

PROJECT 2: FPSO Hulls for SMB Offshore

VESSEL 2: MERO 4 - ALEXANDRE DE GUSMAO



BUREAU VERITAS M&O – VESSEL CONVERSION PROJECT

PROJECT 1: Boskalis conversion work –
Transforming a ship into Bokalift 2 crane vessel

Company Name:

Vessel Name: Bokalift 2

Ship Type: Special Service

Scope of the Conversion: Removal of all drilling equipment widening the vessel with sponsons, installation of 4000 tonn crane, upgrading of accommodation to 146 person on board.



PROJECT 2: FSO Pargo Conversion Project For Perenco

COMPANY Name: DIXSTONE, subsidiary of Perenco

Vessel Name: FSO PARGO

Ship Type: Oil Tanker

Scope of the conversion: converting an Aframax tanker capable of storing 700,000 barrels of oil to a Floating Storage and Offloading Unit (FSO).



PROJECTS

P&O Maritime Logistics receives **ISPO certificate of compliance** by **BV** on the 1st of January, officially taking over the pilotage operations for the ports of Jebel Ali and Port Rashid in the UAE.

The ISPO, initial and annual audit successful carried out by BV Auditor.



PROJECTS

Al-Zour LNG Import Terminal, KUWAIT




Project Type
PFSA/PFSP*

Location
Al-Zour, Kuwait

Date of PFSA
2019

Date of Completion
PFSP 2020 - 2021



The Kuwait National Petroleum Company (KNPC), a subsidiary of Kuwait Petroleum Corporation, is building a new liquefied natural gas (LNG) import terminal at Al-Zour in Kuwait.

Scope of the work:

Conducting and Documenting “*Port Facility Security Assessment”

Developing “*Port Facility Security Plan” 3



PROJECTS

Khalid Faraj Marine Shipping, Abu Dhabi

Project Type
PFSA/PFSP*

Location
Abu Dhabi

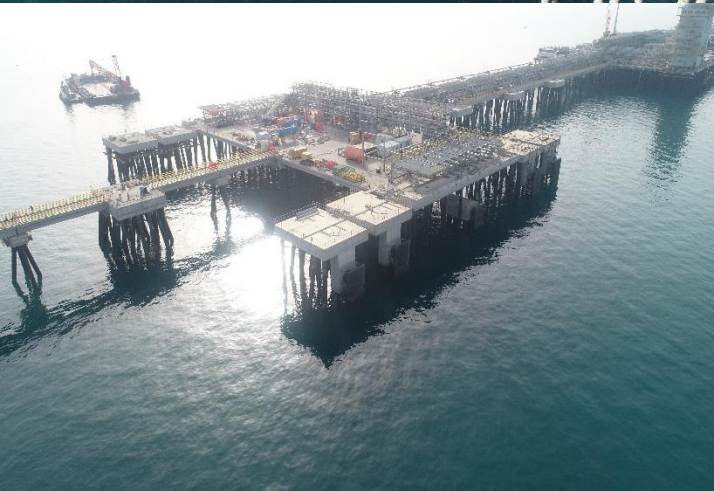
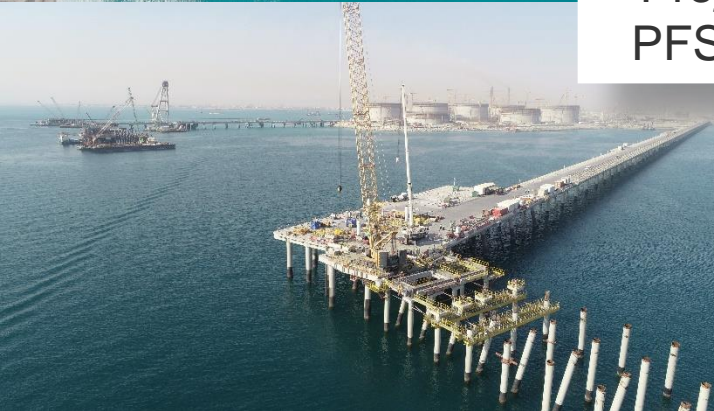
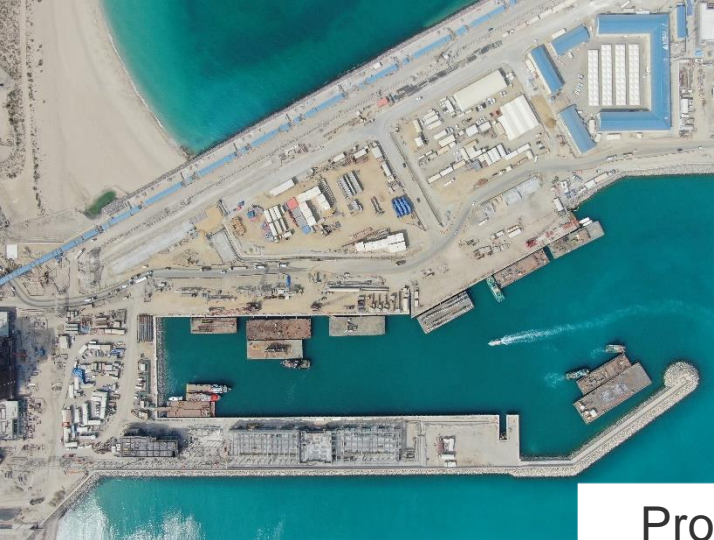
Date of PFSA
2021

Date of Completion
Draft Submitted- Jan 2022

Scope of the work:

Conducting and documenting “Port Facility Security Assessment” (PFSA)
for KHALID FARAJ MARINE SHIPPING.

Developing and documenting “Port Facility Security Plan” (PFSP) for
KHALID FARAJ MARINE SHIPPING, based on Port Facility Security
Assessment.



Qatari LNG shipping operator Nakilat has awarded a three-year contract to Bureau Veritas (BV) to carry out Condition Assessment Programmes (CAP) for its LNG carrier fleet.

BV Solutions Marine & Offshore, a unit of BV, tests, inspects, and certifies marine and offshore components.

The new contract will start this year and will cover 21 of Nakilat's LNG vessels. All of them will be close to 15 years old (3rd Special Survey) at the time of the CAP survey. All CAP surveys will coincide with Nakilat's routine dry-docking processes in Qatar

**YOUR PARTNER
FOR LIQUEFIED
NATURAL GAS**

ADVANCING MARINE
DECARBONIZATION



SOLUTIONS
Marine & Offshore

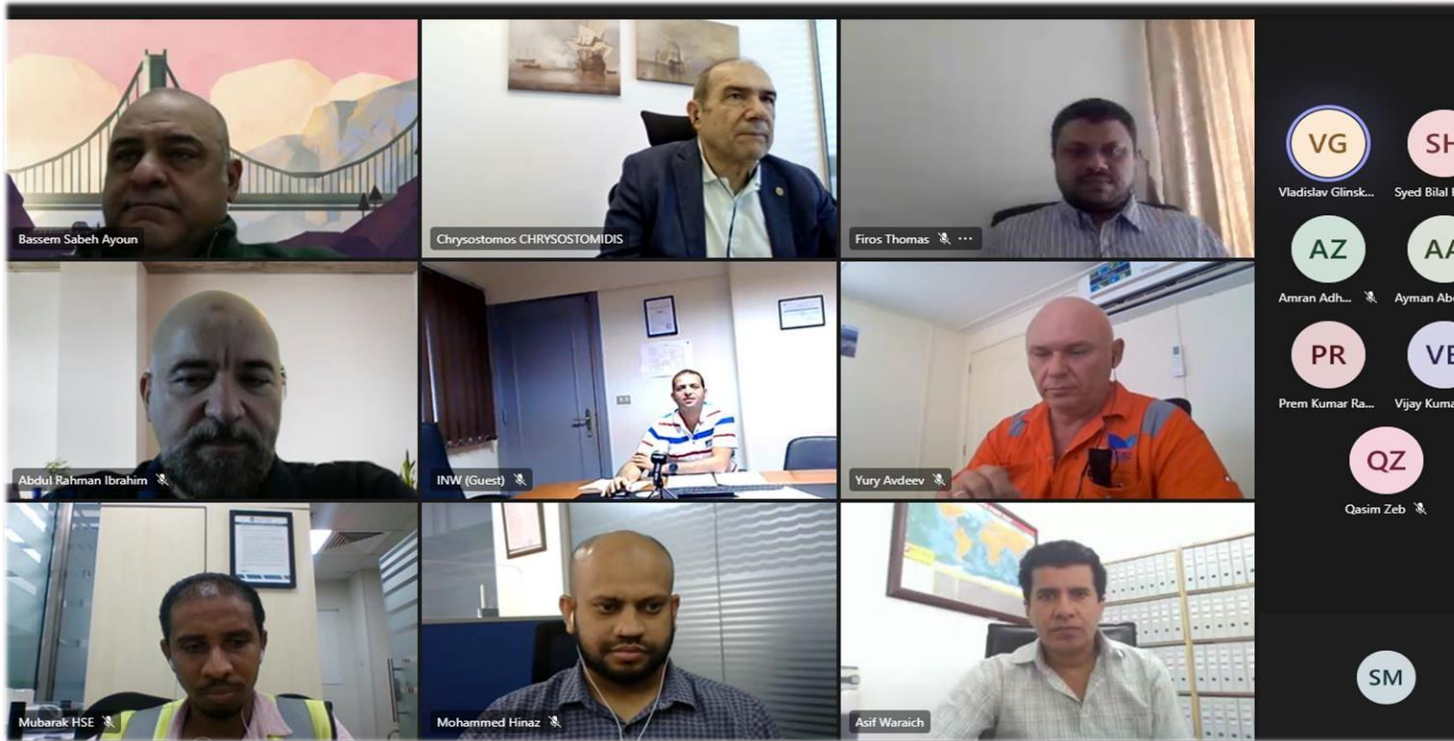


BUREAU VERITAS – TRAINING SOLUTION











IN THE PAST FEW YEARS, BUREAU VERITAS – MARINE & OFFSHORE HAS SUCCESSFULLY OFFERED THE MOST DYNAMIC AND INGENIOUS TRAINING COURSES FOR THOUSANDS OF INTERNATIONAL PARTICIPANTS.

IN THE AGE OF COVID-19 WE WITNESSED A DISTINCTIVE RISE OF E LEARNING.

SEEING CHANGE AS AN OPPORTUNITY BUREAU VERITAS ADAPTED TO THE NEW LEARNING STYLE BY PROVIDING ADVANCED TRAINING COURSES BASED ON DISTANCE LEARNING.



FEATURES OF BUREAU VERITAS TRAINING

-  Over 100 Instructors Globally
-  Dedicated Training Service Team
-  Fully Integrated Exercises & Workshops
-  Over 10,000 Delegates Annually
-  Present in 42 countries
-  Blended Flexible Learning Competency
-  Global Accredited Bodies
-  Industry Recognised Qualifications
-  Full Training Portfolio
-  Expert Service Team

WE WORK WITH YOU TO ADDRESS TOMORROW'S BIGGEST CHALLENGES



DECARBONIZATION

Develop alternative fuels and propulsion systems to reach net zero emissions

—
Develop green hydrogen from fuels such as ammonia and methanol

—
Protect the marine environment (air, water, marine life)

DIGITALIZATION

Improve cybersecurity

—
Enable development of smart and autonomous ships

—
Develop 3D Class

SAFETY

Better address traditional physical safety risks

—
Ensure compliance with regulations and best practice

—
Address new biosafety risks

—
Enable safe transformation linked to new fuels and smart ships



WE COLLABORATE WITH INDUSTRY EXPERTS TO CREATE A COMPLETE ECOSYSTEM OF CYBER PROTECTION FOR CONNECTED VESSELS

SHIP OWNERS & SHIPYARDS

Protect in-service ships by developing a cyber risk policy

—
Ensure newbuilds are cyber secure by design

Notations:
CYBER MANAGED
CYBER SECURE

EQUIPMENT MANUFACTURERS

Prove sufficient hardening for onboard equipment

—
Ensure marine technology meets high standards for cyber security

Certificate:
TYPE APPROVAL

INDUSTRY PARTNERS

We partner with organizations and companies worldwide to improve cyber security for ship owners, addressing threats from design to operation.

ACHIEVE COMPLIANCE WITH IMO RESOLUTION MSC.428 (98)

OPERATING MORE SAFELY AND MORE EFFICIENTLY BY LEVERAGING DIGITAL TECHNOLOGIES

3D CLASSIFICATION

Owners, shipyards, ship designers and Bureau Veritas can work on the 3D model via a collaborative platform: performing calculations, exchanging information and addressing Classification comments.

PREDICTED & OPTIMIZED SURVEY SCHEME

We are developing solutions to enable clients to undergo planned machinery maintenance and condition based maintenance.

REMOTE INSPECTION TECHNIQUES

We reduce cost and risks linked to access through the use of efficient Remote Inspection Techniques using drones, ROVs and crawlers to assess the asset's structural condition.

REMOTE SURVEYS

By using live streaming and augmented reality, our surveyors can also conduct remote surveys to reduce the logistics impact of occasional surveys. Our network of 8 Remote Survey Centers enables 24/7 service coverage.

WE SUPPORT THE DIGITALIZATION OF SHIPS AND SHIPS' OPERATIONS THROUGH A PROGRESSIVE RANGE OF CLASSIFICATION NOTATIONS

TIER 1

COMPUTER BASED SHIPS

Covering the cyber safety of computer based systems and digital solutions capturing data onboard.

TIER 2

CONNECTED SHIPS

Covering ship-to-shore data transfers, means of remote access to ship's data, connectivity performance and cyber security.

TIER 3

AUGMENTED SHIPS

To address the potential of data driven operating models from shore, ship's monitoring, remote support and ship's efficiency.

TIER 4

AUTONOMOUS SHIPS

We are conducting design review and issue Approval in Principle from ships remotely operated from shore up to fully autonomous ships.



CLASSIFICATION EXPERTISE THROUGHOUT THE ASSET LIFECYCLE

BUREAU VERITAS CLASSIFICATION



DESIGN

- Approval In Principle
-
- Design Assessment
-
- Joint Development Project
-
- Advise On Imo Regulations
-
- Advise On Notations
-
- Advise On Approved Equipment



CONSTRUCTION

- Request For Certificate
-
- Plan Approval
-
- Yard Inspection
-
- Issue Compliance Certificates
-
- Equipment Certification
-
- Support Throughout The Construction Process
-
- Surveys And Plan Approval Upon Delivery



SERVICE

- Annual And Class Surveys
-
- Unplanned Surveys
-
- Issuance Of Certificates
-
- Advise On Regulation Compliance Throughout Service Life



END OF LIFE

- Administration Procedures To Withdrawn Class And Flag Certificates
-
- Testing And Certification Of Materials



**BUREAU
VERITAS**

Shaping a World of Trust

MARINE-OFFSHORE.BUREAUVERITAS.COM

