



# A brief introduction to DNV GL's engagement in the Ocean Industries

NICCI/DNB seminar, Bergen

15 March 2018

OUR PURPOSE

TO SAFEGUARD  
LIFE, PROPERTY  
AND THE ENVIRONMENT

## We apply deep insights and diverse industry domain competence



- We **classify, certify, verify and test** against regulatory requirements, standards and recommended practices
- We develop new **rules, standards and recommended practices**
- We **qualify new technologies** and operational concepts
- We give **expert advice** on safety, technology, data management, efficiency, performance, risk management

# Our vision: global impact for a safe and sustainable future

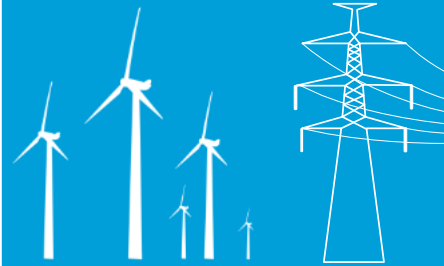
**MARITIME**



**OIL & GAS**



**ENERGY**



**BUSINESS  
ASSURANCE**



**DIGITAL  
SOLUTIONS**



**TECHNOLOGY & RESEARCH**



## Global reach – local competence



**150+**  
years

**100+**  
countries

**100,000+**  
customers

**12,500**  
employees



# Placing DNVGL in the Ocean Space –oil and gas exploration, production and transportation



# Placing DNVGL in the Ocean Space –merchant and navy ships





# Placing DNVGL in the Ocean Space –fishing and fish farming

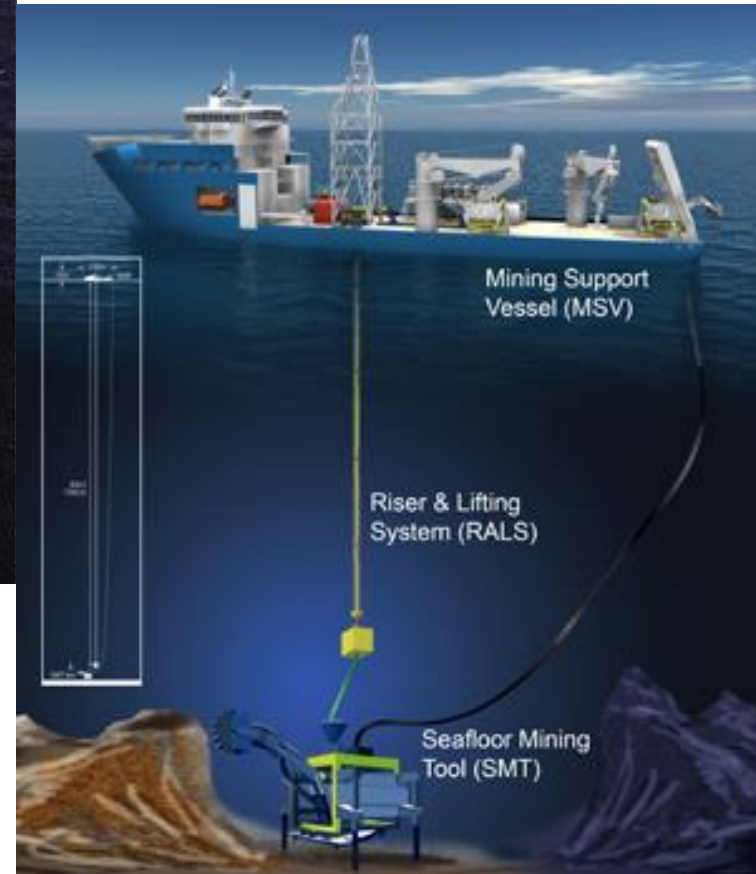




# Placing DNVGL in the Ocean Space - Offshore renewable power

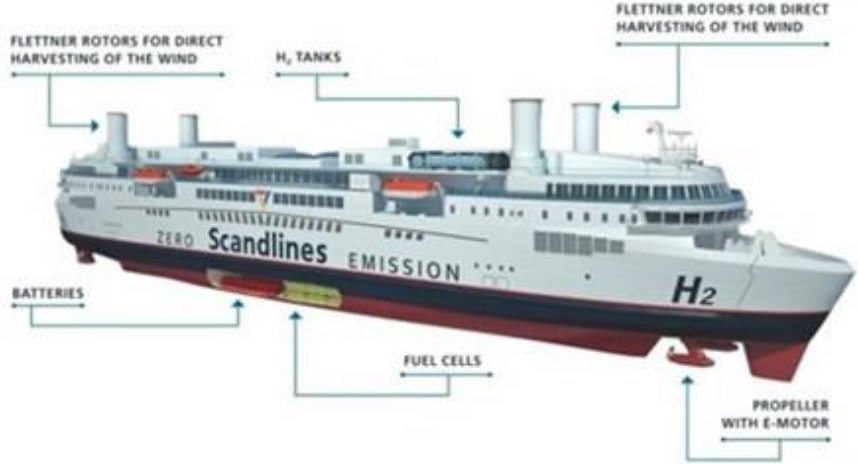
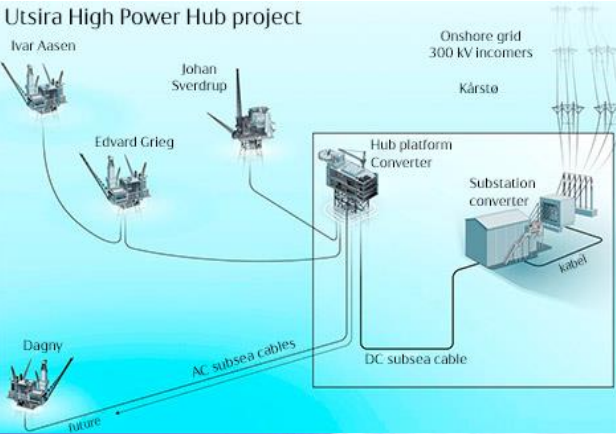


# Placing DNVGL in the Ocean Space – Ocean mining





# Placing DNVGL in the Ocean Space – alternative energy sources





# DNV GL Maritime - The world's leading ship and offshore classification society

## Global reach

Survey stations in 100+ countries and expertise in all ship and offshore segments

**12,160**

ships and mobile offshore units in DNV GL Class, 282.6 mill GT (January 2018)

**20%**

market share (Gross Tonne) of the world's classed ships and mobile offshore units

## Quality

Among the top ranking societies in Port State Control performance



## DNV GL Maritime in India

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- 26 employees
- In India since 1972
- DNV GL has approx. 10% of the Indian Flag Vessels in Class
- DNV GL is closely associated with Technical Management companies, Crew Management offices, Crew Training centers (of important Shipping Companies from around the world) based out of India

## Examples of opportunities in Maritime



- Large spending by Government due to general security scenario
- “Make in India” focus with technology transfer being a key Governmental requirement
- Government spending expected to be in the range of USD 40 Bill by 2030 towards Indian Navy and Coastguard orders
- Ageing Naval fleet which requires to be renewed, large requirement of Patrol Vessels by the Coastguard due to a long coastline
- Navy and Coastguard depending on Class for assuring Quality
- India want to develop environmental friendly short sea/coastal shipping as an alternative to road transportation.
- LNG will become more important in the energy mix in India. FSRUs and also smaller carriers including inland waterways vessels will be in demand



## Roundtable conference, declaration of collaboration, and start up



The Green Coastal Shipping Program will be realized by the industry and government working together in a long-term partnership program

## DNV GL Oil & Gas - Setting the benchmark in oil and gas

**50+**

years ago, we helped pioneer the marine warranty market

**65%**

of offshore pipelines designed and installed to DNV GL standards

**170**

industry standards and recommended practices + 100 joint industry projects each year

**14**

laboratories and test centres across three continents

## DNV GL O & G in India

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- 51 employees
- Active in the O&G market since early 1980s.
- DNV GL is a well recognized brand in both upstream and downstream O&G industries for its Safety, Risk Management and verification services.



## Examples of opportunities in Oil & Gas

### OIL & GAS



- India imports 82% of its oil needs and aims to bring that down to 67% by 2022 by replacing it with local exploration, renewable energy and indigenous ethanol fuel
- India has declared an ambition to include more LNG in the future energy mix.
- India was the fourth top net crude oil (including crude oil products) importer of 163 Mt in 2015.
- India produced 36.95 MTs of crude petroleum in 2015-16. The total oil refining capacity in India stood at approx. 233 MMT as of 2016.
- India has launched the first auction in Jan 2018 of exploration blocks under its new licensing policy and sought bids for 55 blocks spread across the country.

# DNV GL Energy - An energy technology power house

## Largest

independent technical advisor on renewable energy and 2,300 energy experts

## >25

standards and guidelines published as a leading certification body

## No 1

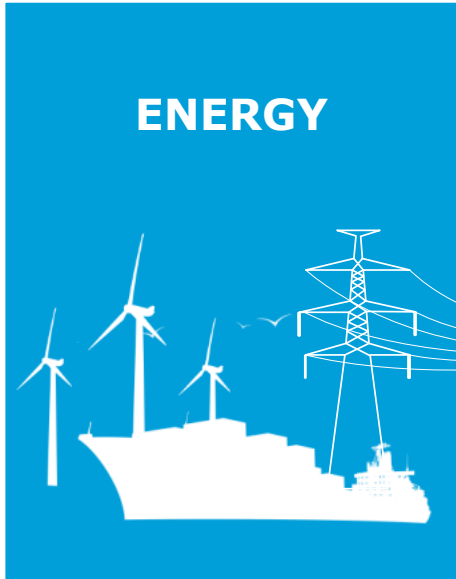
in high power and high voltage testing with 10 laboratories incl. our leading lab in Arnhem

## 90

years experience in the power industry, including 30 years in energy efficiency and wind energy

## DNV GL Energy in India

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- 45 employees in
- DNV GL is the preferred technical partner for both wind and solar
- DNV GL has been active in the Indian Renewable Energy market since 1996 when it completed its first wind assignment.



## DNV GL supports offshore wind development in India



«Experts from BA Energy successfully complete five-year FOWIND project work to help establish India as a new offshore wind energy market».

# DNV GL Digital Solutions - Digital asset ecosystem software and digital solutions

- Structure (ship, offshore O& G, offshore wind power)
- Processing and plants
- Pipelines
- Ships
- Electric grids
- QHSE and Enterprise Risk
- Industry data platform (Veracity)
- Data management services
- Cyber security services
- Smart city services



# DNV GL Business Assurance in India

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- Close to 200 permanent employees
- One of the leading certification bodies in India





# Thank you for your attention!

**Jon Rysst**

Jon.Rysst@dnvgl.com

+47 97047520

**www.dnvgl.com**

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