Norwegian Ministry
of Climate and Environment

National Policy Frameworks:

Green Shipping – The Norwegian Approach

Sveinung Oftedal

Specialist Director


We are entering a crucial decade for the climate and the oceans
MAERSK LINE
We are entering a crucial decade for shipping and the IMO

Succeeding on green transition of shipping
Three pillar action

National spearhead policies

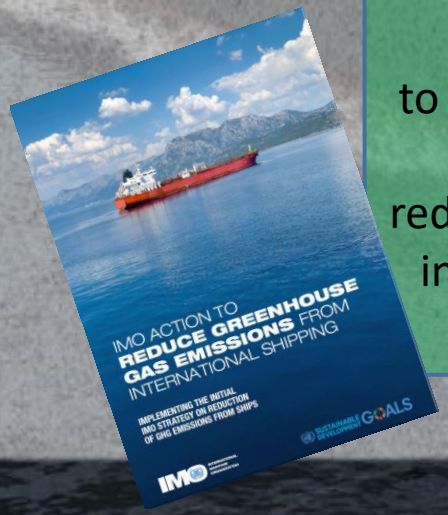
–

to introduce low/zero emission technologies and fuels

Development and implementation of the IMO legal framework

–

to ensure need emission reductions from international shipping



Assistance to developing countries

–

to ensure the required progress at the IMO and full implementation

The Government's action plan for green shipping was presented in June 2019

National Action Plan for Green Shipping

- **Reduce emissions in domestic shipping**

  Norway – low emission society

- **Increased creation of economic value in the maritime sector**

  Norway – innovative society

Ambitions and actions

- **Main ambition:**
  To reduce greenhouse gas emissions from domestic shipping and fishing by 50 percent by 2030 compared to 2005.

- **Main approach:**
  Stimulate zero- and low-emission solutions in all vessel categories

- **Enhance existing measures, and introduce new**
  Tailor made solutions for the various vessel categories

  (requirements in public tenders, grant schemes, public-private partnerships, incentives etc.)

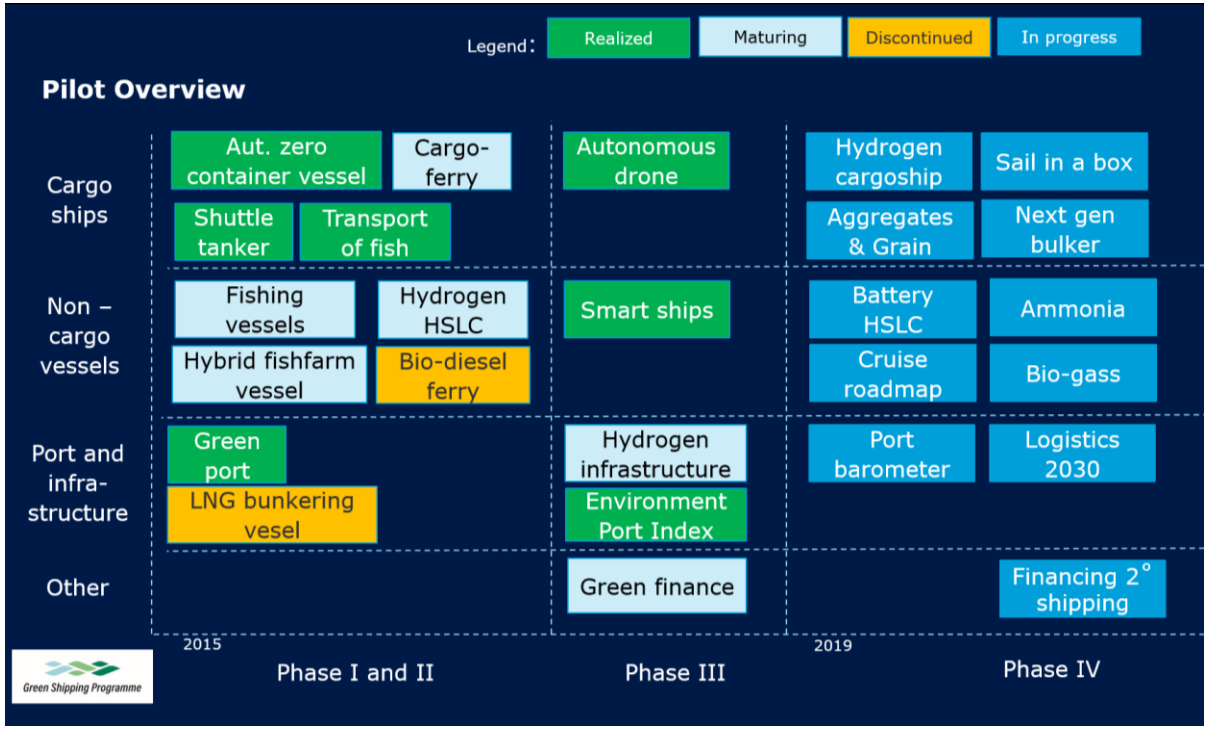
Funding agencies which is important for green shipping

- The Research Council of Norway
- Enova
- Innovation Norway

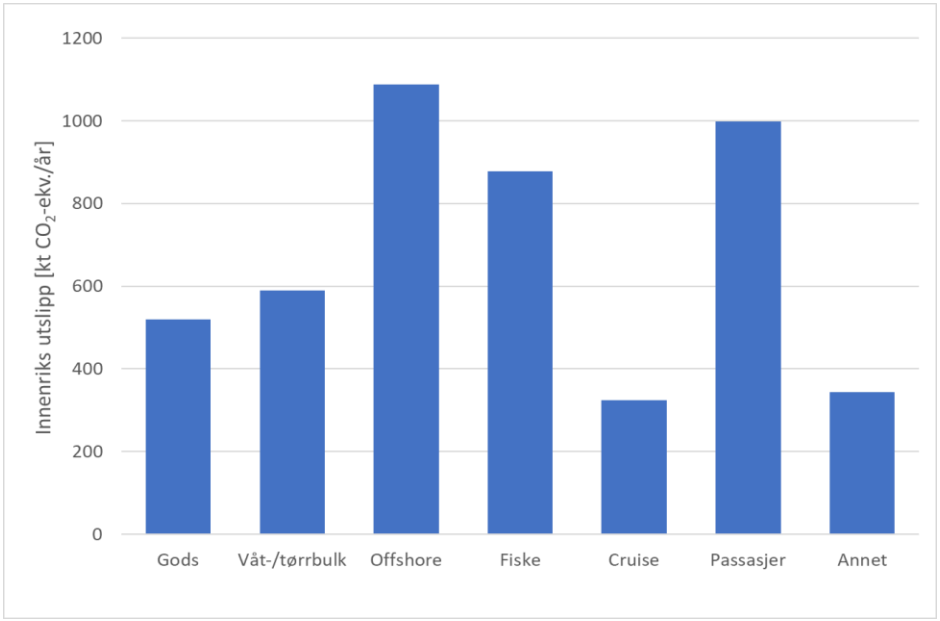
- The NOx-Agreement → The NOx-Fund

- The Norwegian Export Credit Guarantee Agency (GIEK) and Export Credit Norway
- The Norwegian Catapult

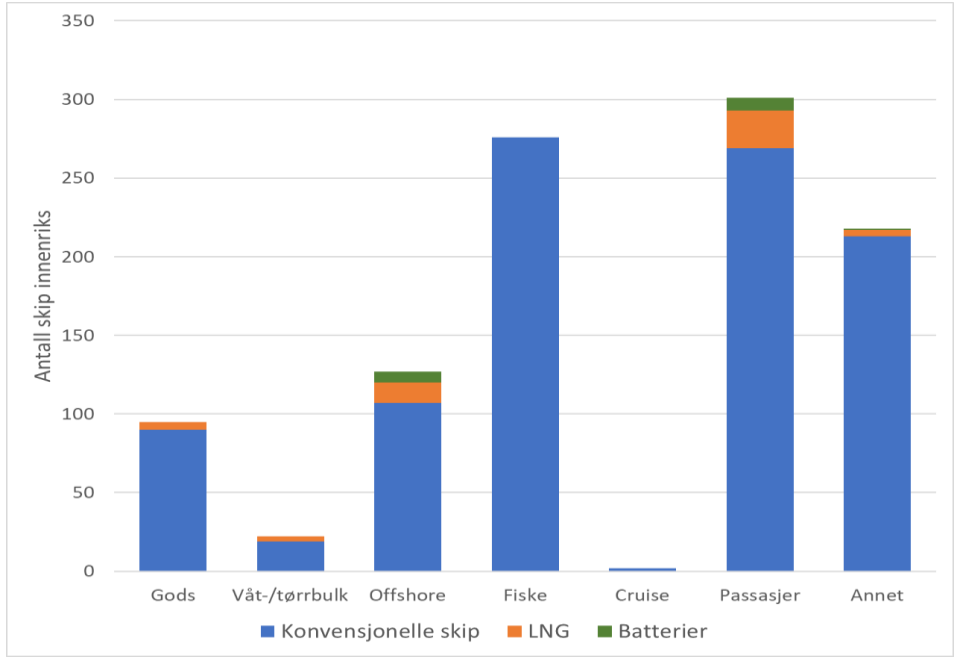
Public-Private Partnership



Green shipping has just started

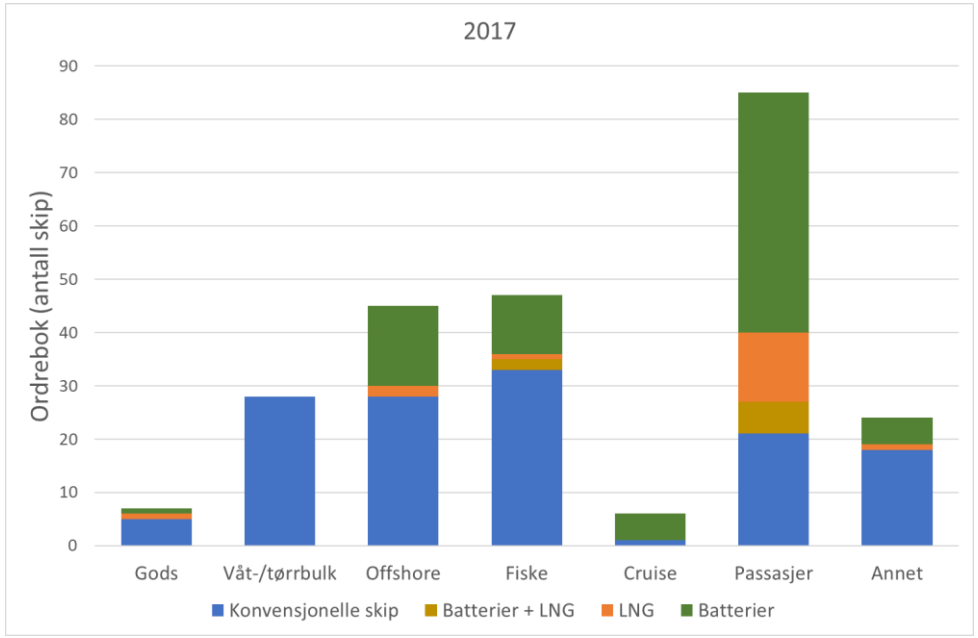


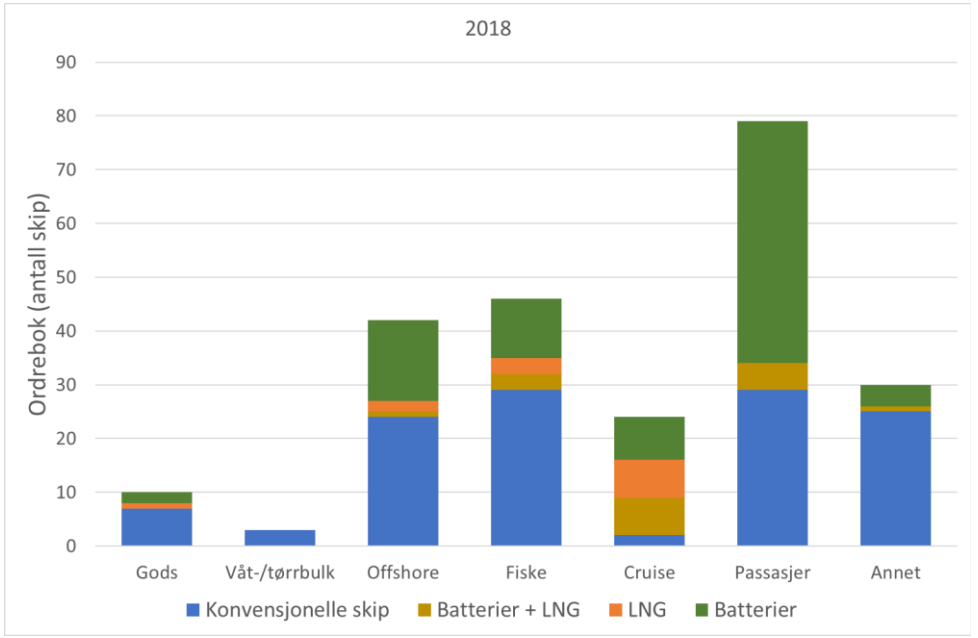
Utslipp fra sjøfart og fiske fordelt på fartøyskategori.
Estimat i CO_2-ekvivalenter, basert på AIS-data fra 2017.



Teknologistatus for innenriksflåten
(skip med mer enn 80 prosent av tiden i norske farvann) i 2017

Orderbook – green ships in 2017 and 2018





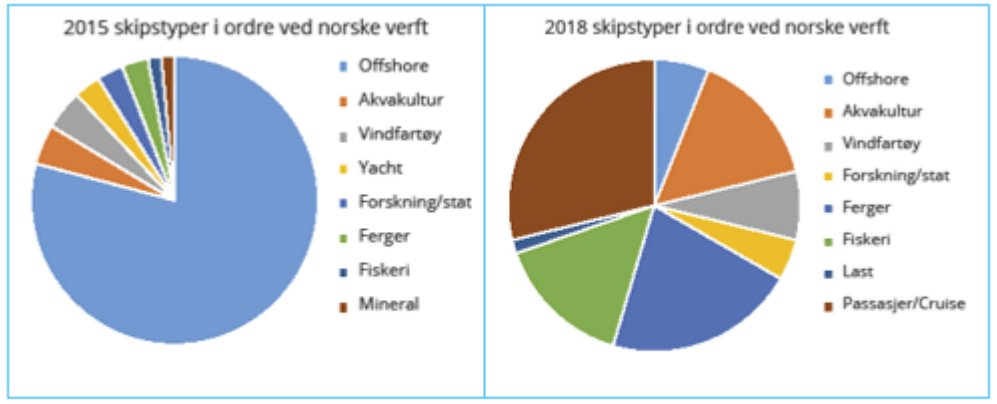


Figure 3: Vessel types on the order books of Norwegian shipyards in 2015 and 2018.

LNGpowered ships – Alternative Fuel Insight (afi.dnvgl.com)

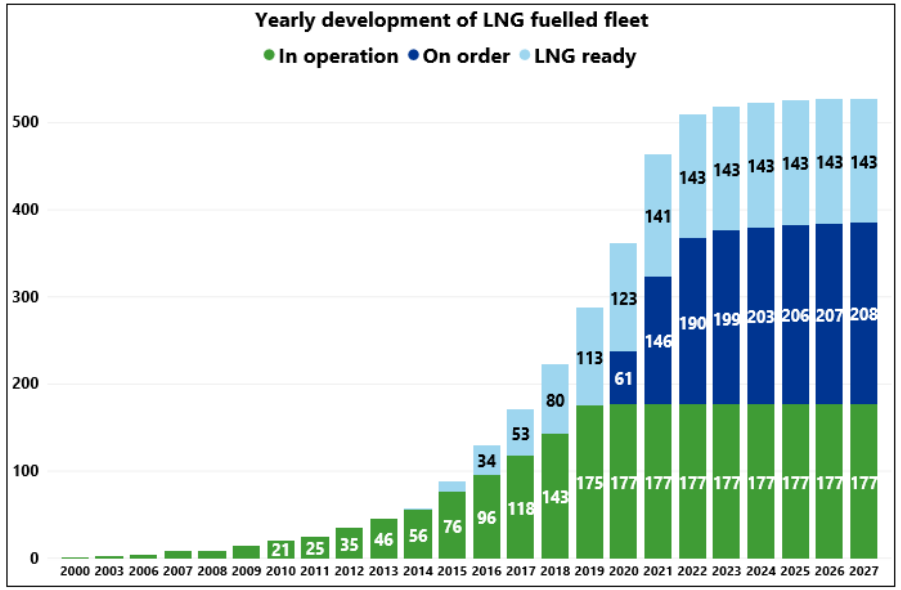
Operational status
- ☑ Contract signed
- ☑ In operation

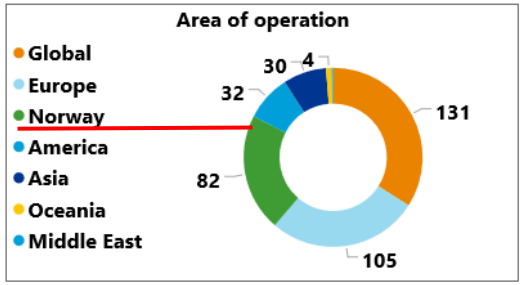
Project type
- ☑ Newbuild
- ☑ Retrofit

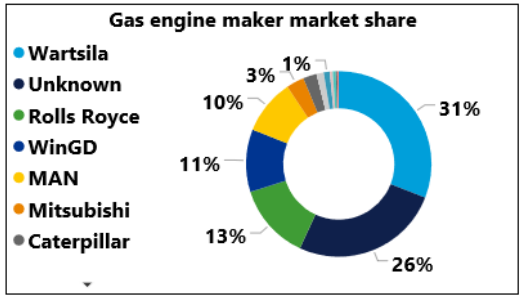
LNG fuelled ships in operation: 177

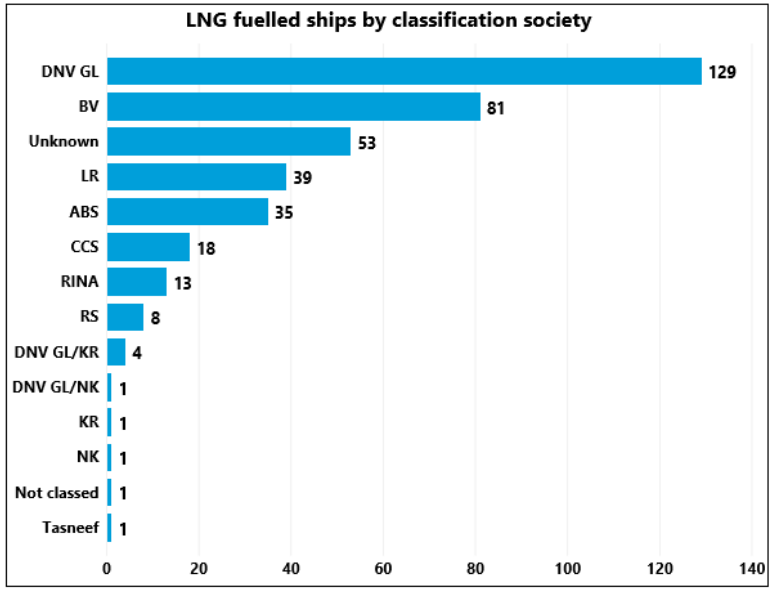
LNG fuelled ships on order: 208

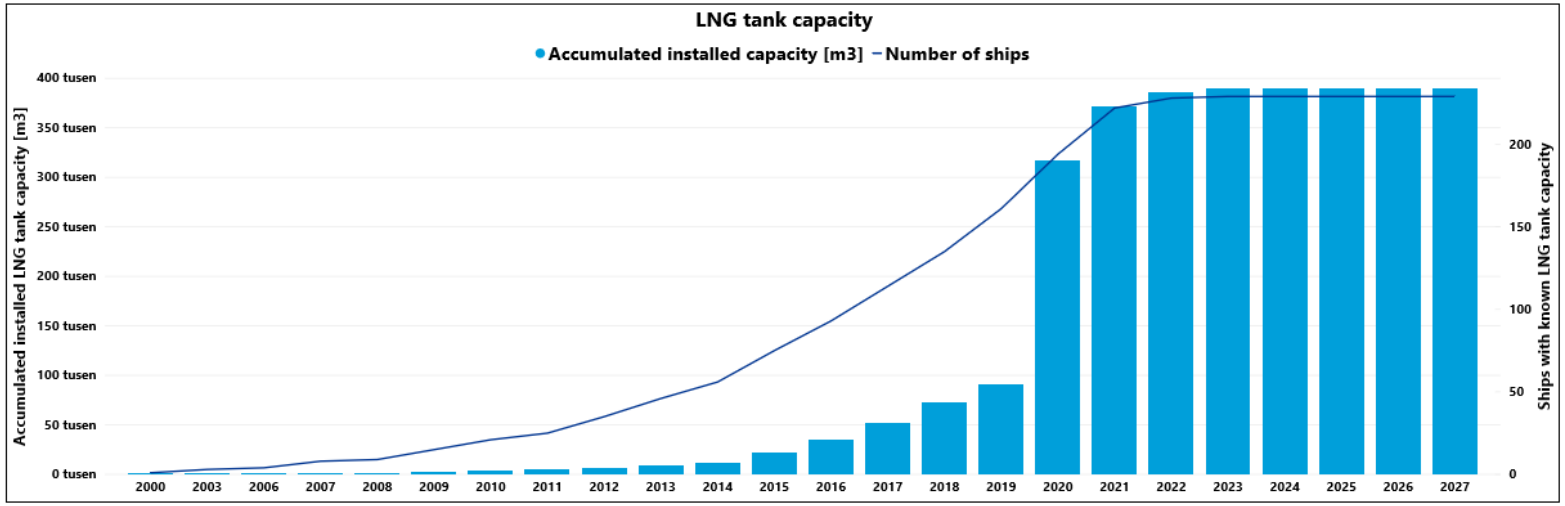
Table filter
- ☑ LNG
- ☐ LNG ready

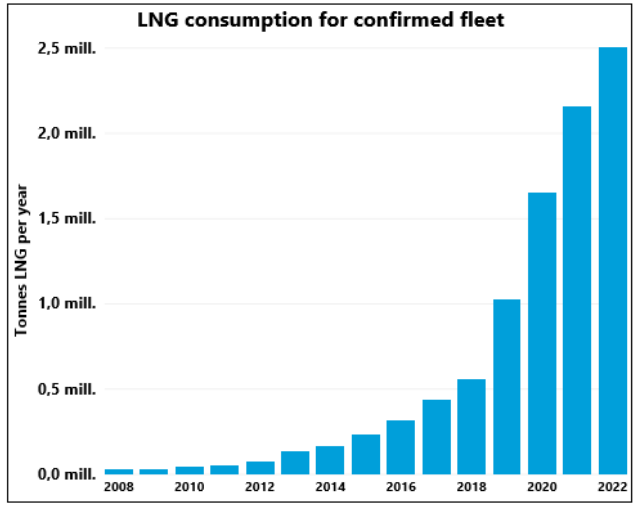












Batteries in ships – Alternative Fuel Insight (afi.dnvgl.com)

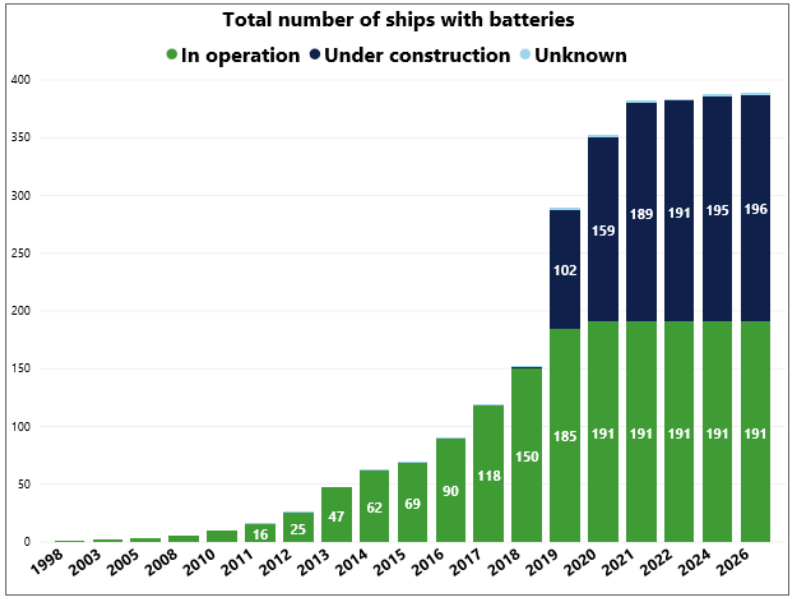
There will be 80 electric ferries (full or hybryd) in operation in Norway in 2022

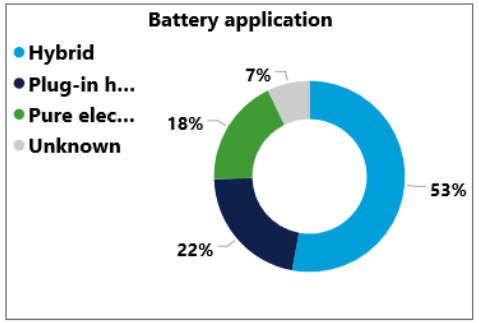
Operational status
- ☑ In operation
- ☑ Under construction
- ☑ Unknown

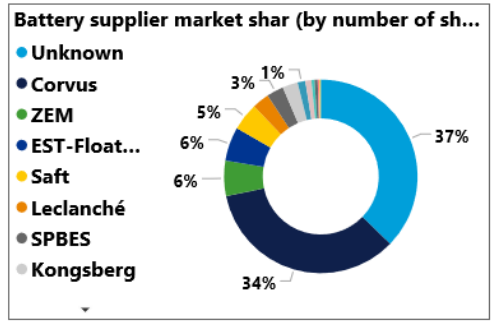
Newbuild/Retrofit
- ☑ Newbuild
- ☑ Retrofit
- ☐ Unknown

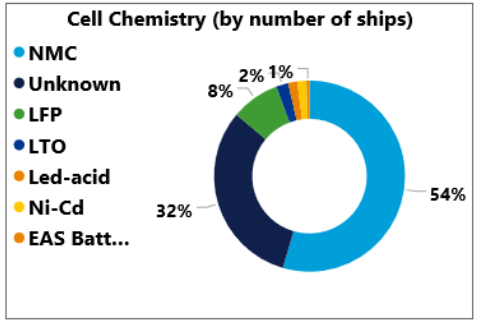
Ships with batteries in operation: 192

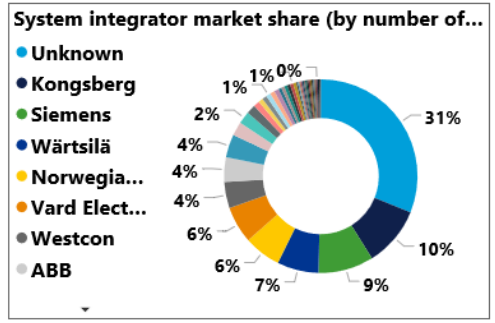
Ships with batteries on order: 196

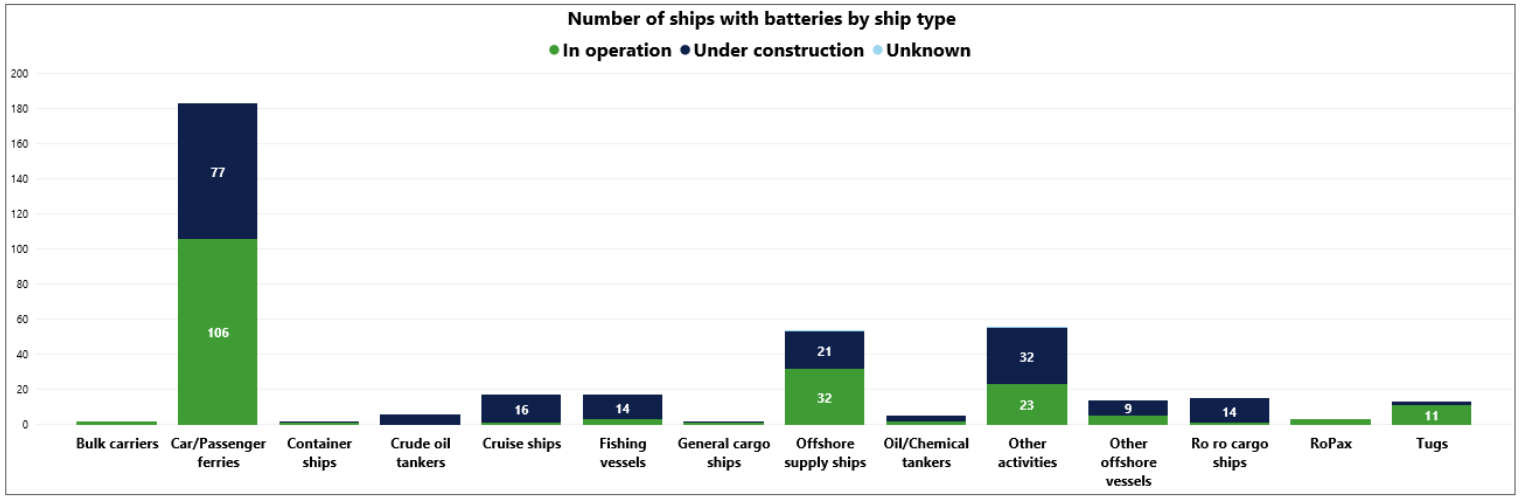


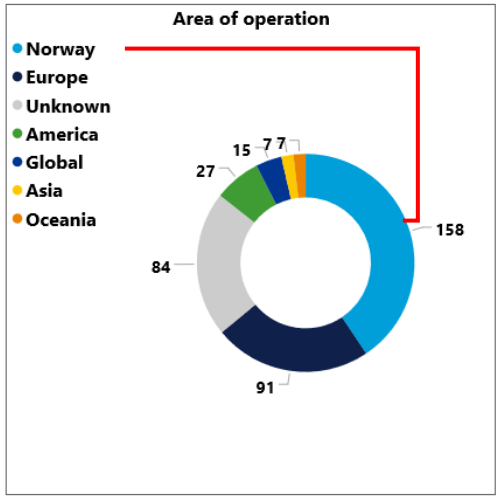




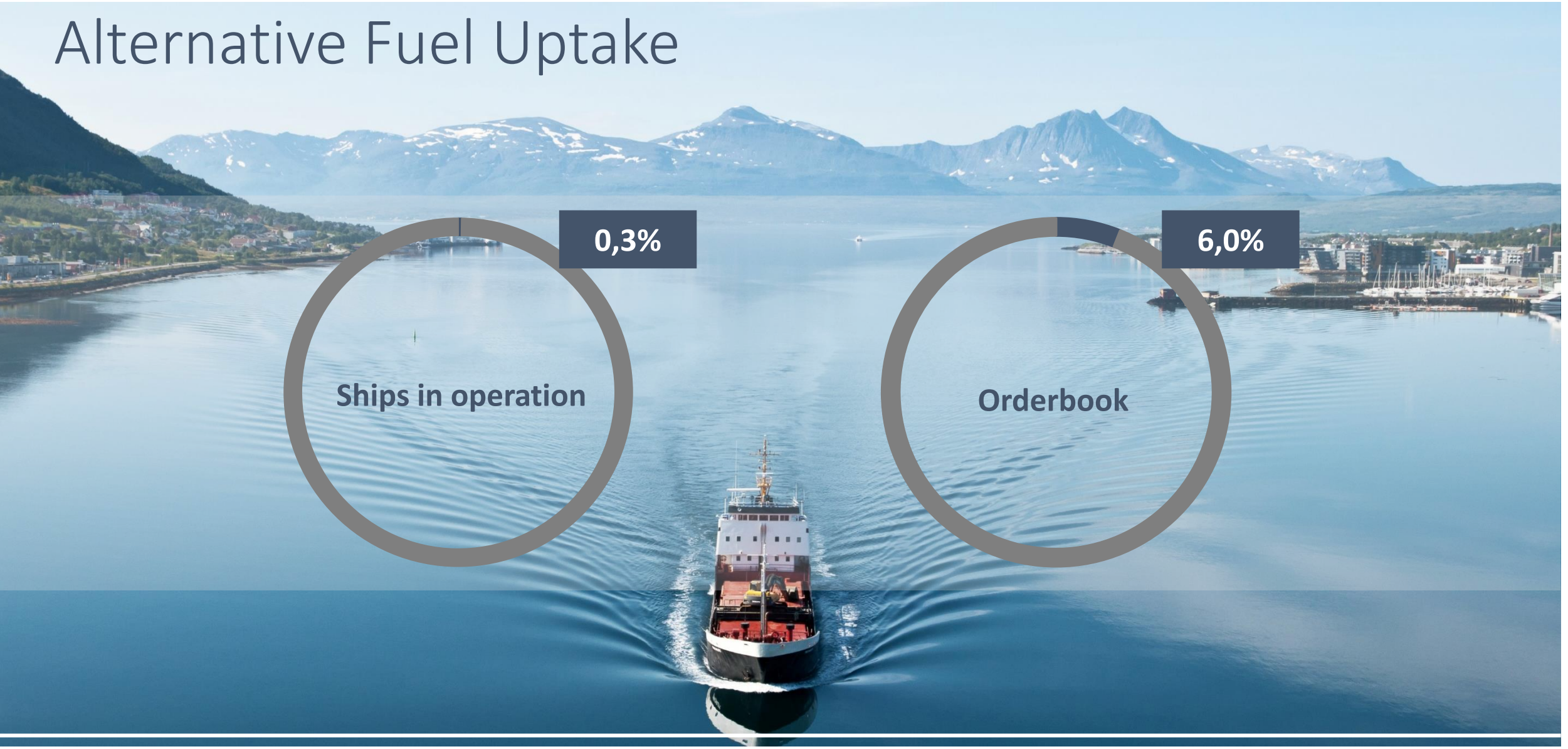








Alternative Fuel Uptake



DNVGL – Energy Transition Outlook 2019

"Klimakur" analysis:
Domestic shipping will need to contribute substantially to in order to meet Norway's 2030 emission target

Klimakur 2030

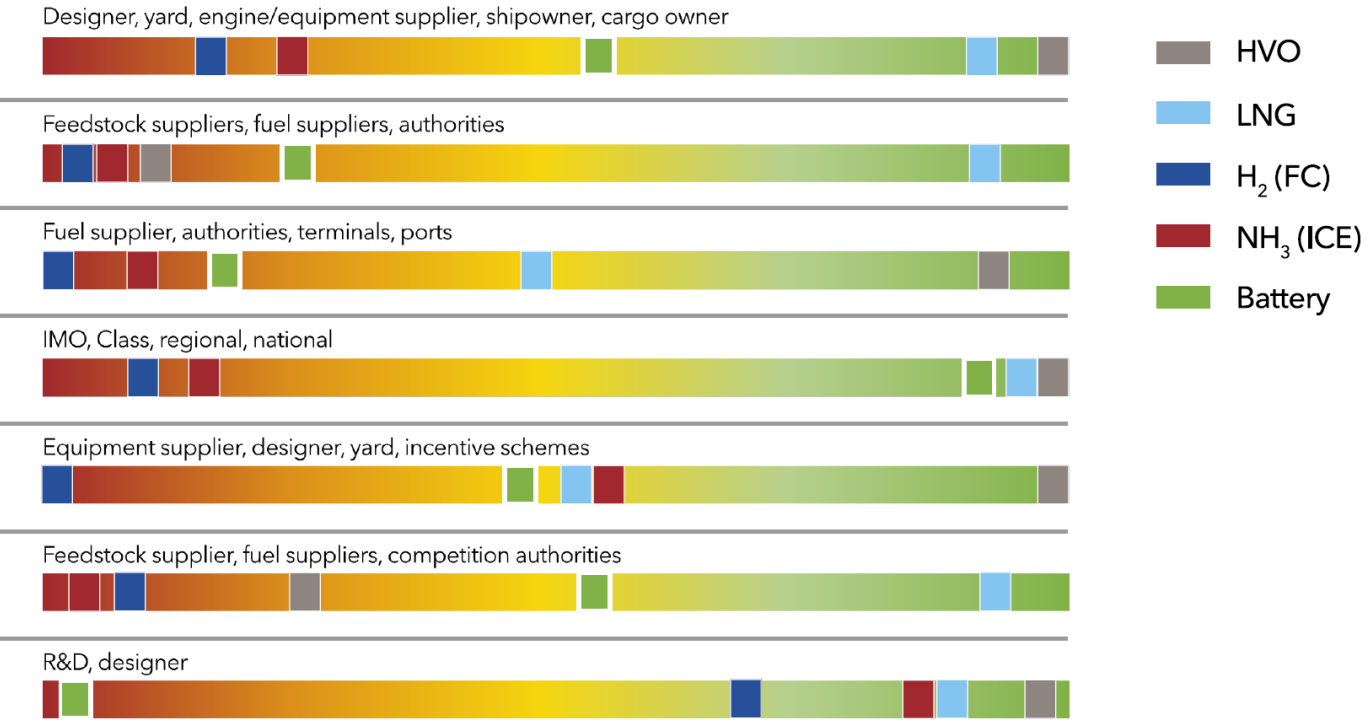
Barrierers to overcome

The Alternative Fuel Barrier Dashboard: Indicative status of key barriers for selected alternative fuels

Barriers exists on many levels for different fuels.

Adoption of alternative fuels depend on

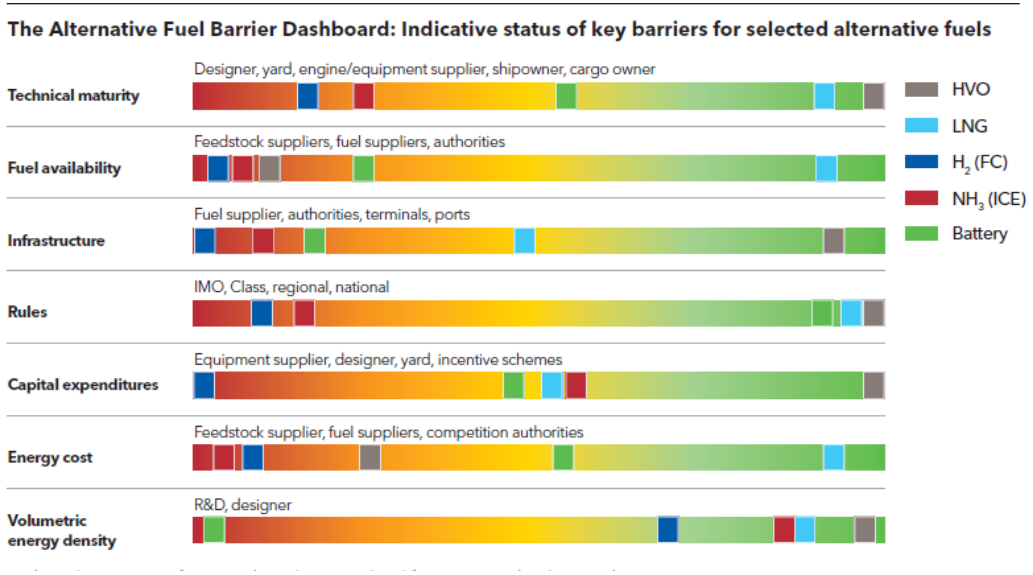
- demand from charters/cargo owners,
- proactive regulators,
- procurement policies and
- incentive schemes and international cooperation

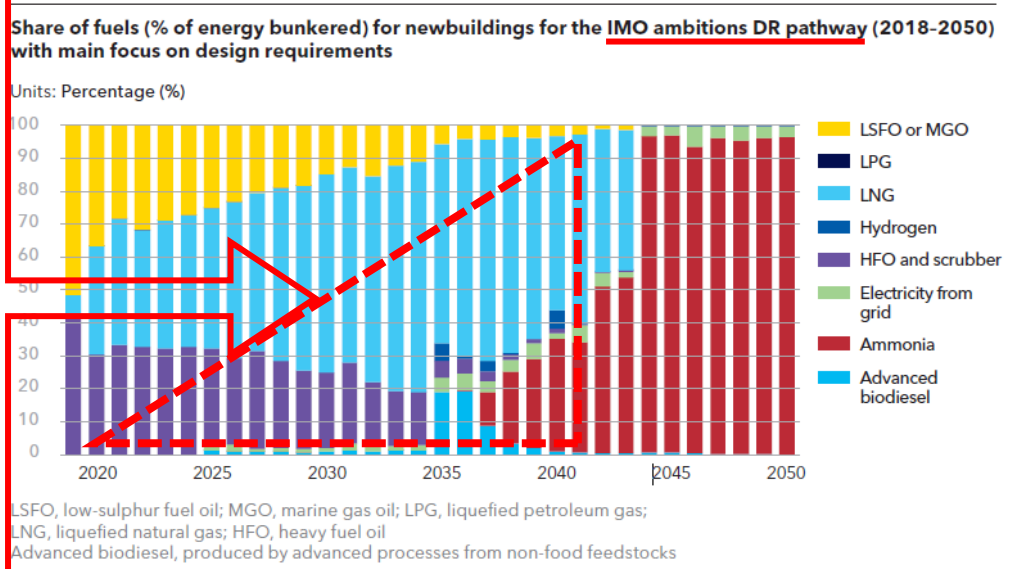


Basic facts – The 2050 ship is designed today.

Policy ambitions can only be met if new firm policy action is taken

- 2020: This is the decade which defines 2050
- Speed up – scale up:
  - A wide reaching regulatory approach
  - Coordinated funding approach (all phases)
  - Assistance to developing countries





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Attending IMO meetings
IMO Events
IMO Goodwill Maritime Ambassador scheme

UN agency launches new global project to tackle maritime GHG emissions

Briefing: 08 13/05/2019

A major international project to support the International Maritime Organization (IMO)'s initial strategy for reducing greenhouse gas emissions from shipping has been launched.

Entitled GreenVoyage-2050, the project will initiate and promote global efforts to demonstrate and test technical solutions for reducing such emissions, as well as enhancing knowledge and information sharing to support the IMO GHG reduction strategy.

GreenVoyage-2050 is a collaboration between IMO and the Government of Norway and will run for an initial two-year period. More than 50 countries in 14 sub-regions across the globe are expected to participate, including developed countries and strategic partners from the private sector, who will contribute expertise and experience.

The project will also build capacity in developing countries, including small island developing states (SIDS) and least developed countries (LDCs), to fulfil their commitments to meet climate-change and energy-efficiency goals for international shipping.

Initially, eight countries, from five high-priority regions (Asia, Africa, Caribbean, Latin America and Pacific), are expected to take pilot roles, to pursue and undertake actions at the national level. These pilot countries will then become "champions", galvanising momentum by supporting other partnering countries in their

IMO Secretary-General Kitack Lim (left) and Mr Sveinung Oftedal, Specialist Director of the Norwegian Ministry of Climate and Environment, signed the GreenVoyage-2050 project. The project is a direct response to the need to provide

IMO-Norway Global Partnership Project

GreenVoyage2050

Overall objective:

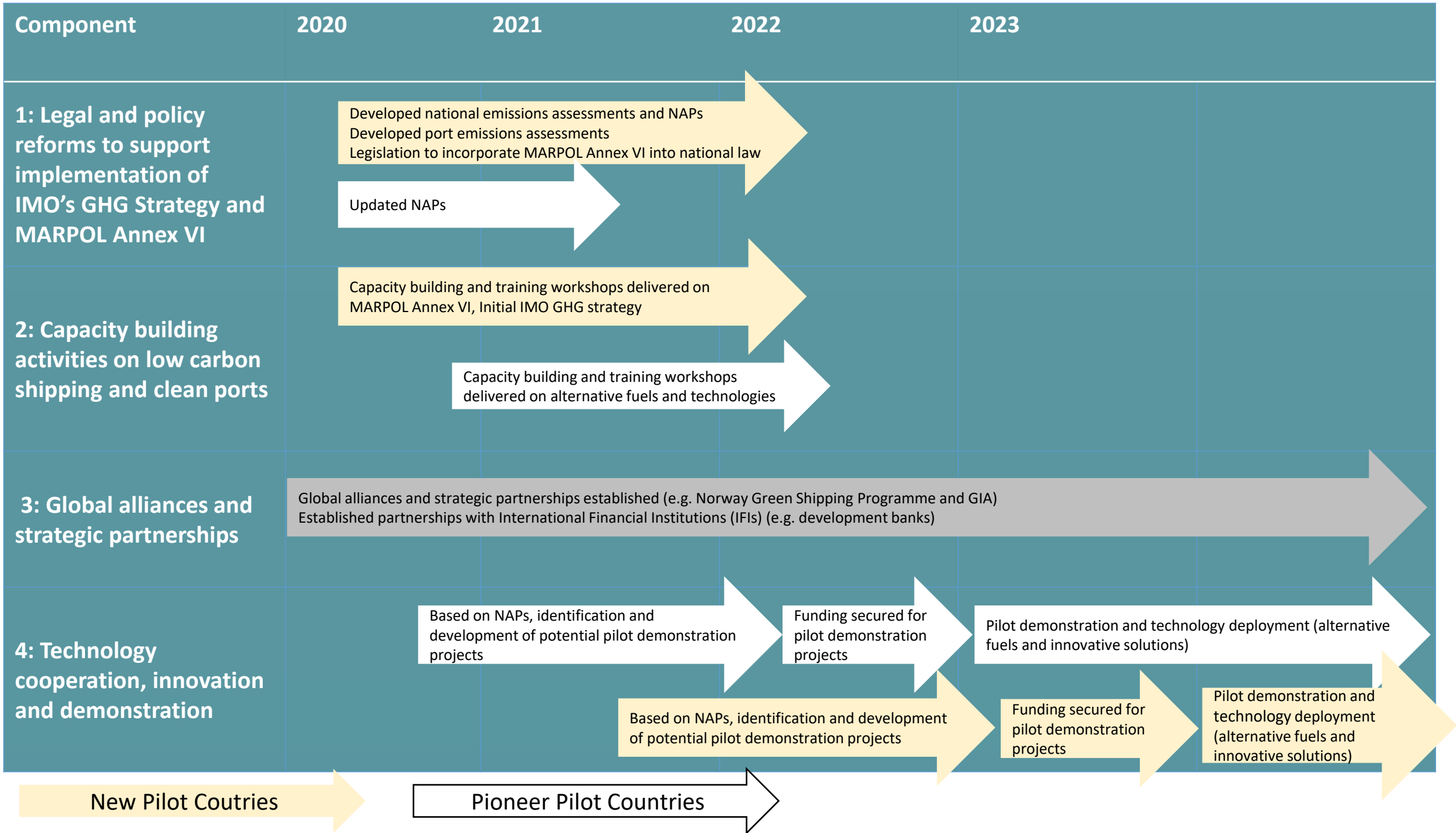
Support international shipping in achieving GHG emissions reductions by at least 50% by 2050 compared to 2008.

Specific objectives:

- Support developing countries, including SIDS and LDCs, in meeting their commitments towards relevant climate change and energy efficiency goals for international shipping.

- Creation of strong partnership between 12 developing countries and, at each country level, systematically pursue:

    - Legal and policy reforms to support implementation of the Initial IMO GHG Strategy;
    - Building capacity (human and institutional) in the area of low carbon shipping and clean ports; and
    - Initiate and promote efforts to demonstrate and test technical solutions for reducing emissions, as well as enhancing knowledge and information sharing.


Component
2020
2021
2022
2023
1: Legal and policy reforms to support implementation of IMO's GHG Strategy and MARPOL Annex VI
Developed national emissions assessments and NAPs
Developed port emissions assessments
Legislation to incorporate MARPOL Annex VI into national law
Updated NAPs
2: Capacity building activities on low carbon shipping and clean ports
Capacity building and training workshops delivered on MARPOL Annex VI, Initial IMO GHG strategy
Capacity building and training workshops delivered on alternative fuels and technologies
3: Global alliances and strategic partnerships
Global alliances and strategic partnerships established (e.g. Norway Green Shipping Programme and GIA)
Established partnerships with International Financial Institutions (IFIs) (e.g. development banks)
4: Technology cooperation, innovation and demonstration
Based on NAPs, identification and development of potential pilot demonstration projects
Funding secured for pilot demonstration projects
Pilot demonstration and technology deployment (alternative fuels and innovative solutions)
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New Pilot Coutries
Pioneer Pilot Countries

IMO-Norway Global Partnership Project

GreenVoyage2050

Funding:

- Government of Norway is providing funding of NOK 50 millions (US$ 5.4 millions) for initial two years, focusing on 12 pilot countries.
- Subject to government approval, Norway will provide additional funds to secure continuation until 2023 (revised IMO Strategy expected to be adopted) and enable project expansion to include additional beneficiary countries.

Next steps:

- IMO to finalize country selection process for first phase of the project;
- Countries to join project via signing a letter of commitment, including in-kind co-financing to the project; and
- Initiate activities at national, regional and global level.

For further information, please contact Project Coordination Unit (Astrid Dispert, adispert@imo.org).

Green Shipping – The Norwegian Approach

- Taking National Action
- Building a Global Framework
- Assisting Developing Countries

Thank you for your attention!