



WHEN TRUST MATTERS

Nordic Roadmap Input from Reykjavik Workshop

3rd October 2023

Input on actions: Green shipping corridors

- Shipowners and users must be made aware of their green fuel options → communication and knowledge-sharing
- Government takes lead on choice for own fleet: all zero emissions
- Introduce CfDs right now
- Zero emission substitutes mechanism (Government)
- Government subsidies CAPEX to companies
- Emission fund tax vs incentives
- Create clarity for offtakes (clear signals from government)
- Decide specific corridors /prioritized list
- Guidelines/standards for bunkering
- Infrastructure plan (government)
- Ensuring business readiness (technology/safety)
- Make green fuel available in certain ports
- Taxation on emissions
- Mandatory for all Nordic countries to be included in a green shipping corridor
 - Must start local and regional now!

Input on actions: Coordinated development of fuel availability

- Challenge the big consumers to become accessible ambassadors for the energy transformation
- Secure long-term offtake agreements of 10-15 years is an enabler to decide fuel production investment (shipowner – fuel producer). Can be a part of a green corridor
- Create an overview of the current bunker demand in different regions, and access transition scenarios – so that we have actual volumes to consider
- Nordic investment fund for renewable infrastructure – so it can be quite ... to access the funds
- Approval process of dual-fuel options, need a common approach which all flags follow - barrier for getting engines to market
- Assessment on pooling of resources for distributed production/Availability – coordinated approach hub-and-spoke
- Innovate bunkering – can it be done in hubs, can it be done at sea, etc. Offshore bunker barges – feasible bunkering for higher geographical distribution of fuels between ports.
- Common standard on life cycle carbon on alternative fuels. Otherwise the net-zero fuels will not be able to scale.
- Make a plan on Nordic energy distribution – strategic re-use of existing energy infrastructure – utilising Nordic shortholds, where there are already advantages (high-level, minister level). Linked to land transport.
- At minister level: Define step-wise goals that are aligned with firstmover targets at the EU etc.
- Just-in-time arrival Across the Nordics and avoid ballast – be more efficient on a fleet level – explore contractual innovation.
- Defaulted bunker inventory in ports.
- Invest in all techno-economic energy efficiency measures to reduce the total fuel demand
- Changing the laws related to systemic energy resources and circularity – example Danish tax on oversupply
- Assess pools of energy excess that can be utilised

Input on actions:

Coordinated development of fuel availability

- To diversify sources (wind, solar, biomass, geothermal, nuclear)
- To think on SRL (societal readiness level?)
- To define TRL for different fuel products
- Maritime fuel quality standards
- Identify end users
- Infrastructure development for given fuel (distribution, storage and bunkering)
- Develop standards for small/interments installations for store and deliver new fuels(like i.e. ISEOTT) (IMO)
- Land planning permitting need to be effective (EU/local countries)
- Costs – external market analysis (out of Nordics)
- Emergency stock level

Input on actions: Cost- and risk sharing mechanisms

- Long term horizon on stable predictable policies for large investments with long timelines to produce and use alternative fuels
- Nordic harmonization of funding criteria helping the whole value chain
- Electricity price secured
- Investment secured
- Detax 100% fuel transition companies (like for EU in NO)
- Implement CfD for green fuels to close the cost gap for early projects
- E-fuel standards
- Ensure price transparency/discovery for alternative fuels similar to fossil fuels
- E-fuel market
- Nordic collaboration
 - common trust between the Nordic countries
 - Reduce the risk by have the same approval/funding possibilities cross the Nordics
- Support mechanism for bunkering and fuel operation
- Subsidies for the whole corridor at the same time
- Firm very long-term regulation on old fuels allowed in ports (... 2030)

Input on actions: Cost- and risk sharing mechanisms

- Reduce the time for planning and env. For permits for production plants and fuel distribution. Takes too many years today.
- Need of fully funded pilot/demos (by society/env funds) since it is difficult to get companies to invest to such money in testing new solutions due to the risk.
- Policies to secure production/supply of fuels. E.g, offtake agreements, attractive loans, grant (Role of government, use money from fossil fuels producers and users)
- Policies on where it should be available and at what scale and when and what fuels – clear strategy for this on a national/regional /local level. Hubs ready when?
- Subsidies for first movers/first users of new fuels. The costs are high initially, those costs need to be shared with the society. Shipowners are waiting for the politicians to set the rules. Expensive to take investment decisions too early if going for the wrong fuel.
- The vessels already built should not be negatively impacted by change in policies. Second hand market is important ...
- Sticks and carrots, e.g.:
 - Decrease taxes on renewable fuels and increase on fossil fuels
 - Start soon, gradual implementation but long-term initiative
- “Similar” regulations in between the Nordic countries but also in line with other countries. Nordic countries need to go ahead though and do not wait for the EU and IMO
- Same regulation for “new” fuels as for chemicals used in other sectors.
- Educate society to increase knowledge about the new fuels and increase acceptance.
- Make sure that the ships actually use new fuels that they can use. Maybe pay a certain amount of the grant later, when they can share that they have used the new fuels but better to pay extended to those using a lot of the fuel
- Same regulations for cruise ships in all Nordic countries
- Requirements for new ships that they need to be dual fuel or not only we fail fuels. When somewhat later that many other actions identified

WHEN TRUST MATTERS

www.dnv.com

