#### **The Green Future of Maritime Operations**

Royal Arctic Line presentation TGFMO conference Nuuk, October 5, 2022



#### **The Green Future of Maritime Operations**



















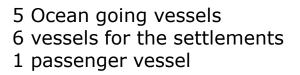
#### A modern fleet built for our purpose

#### **Atlantic & Ocean going Arctic vessels**















#### **Settlements**







Maleraq Arctica



Arpaarti Arctica

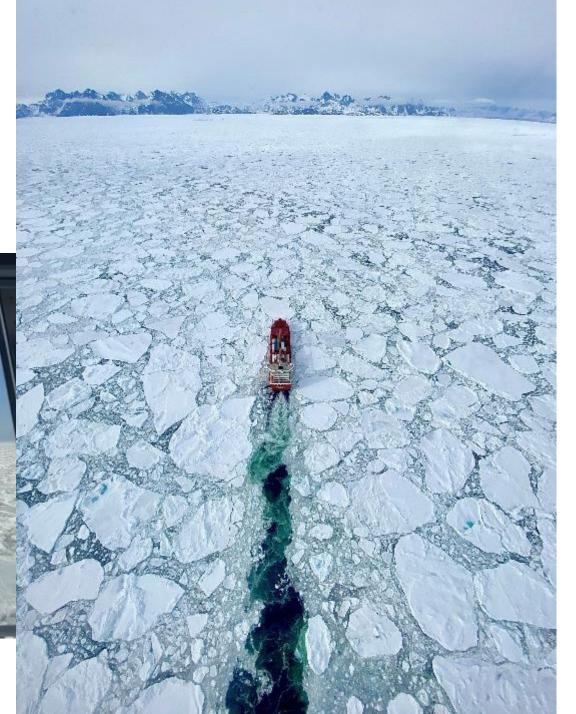


Tilioq Arctica



246 years of experience with the Arctic

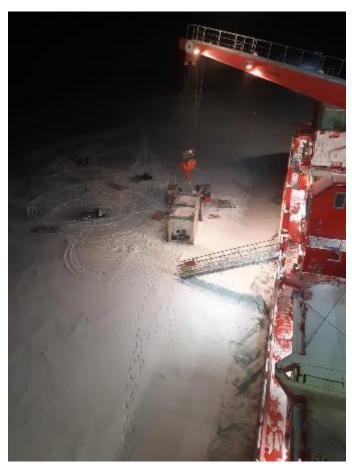






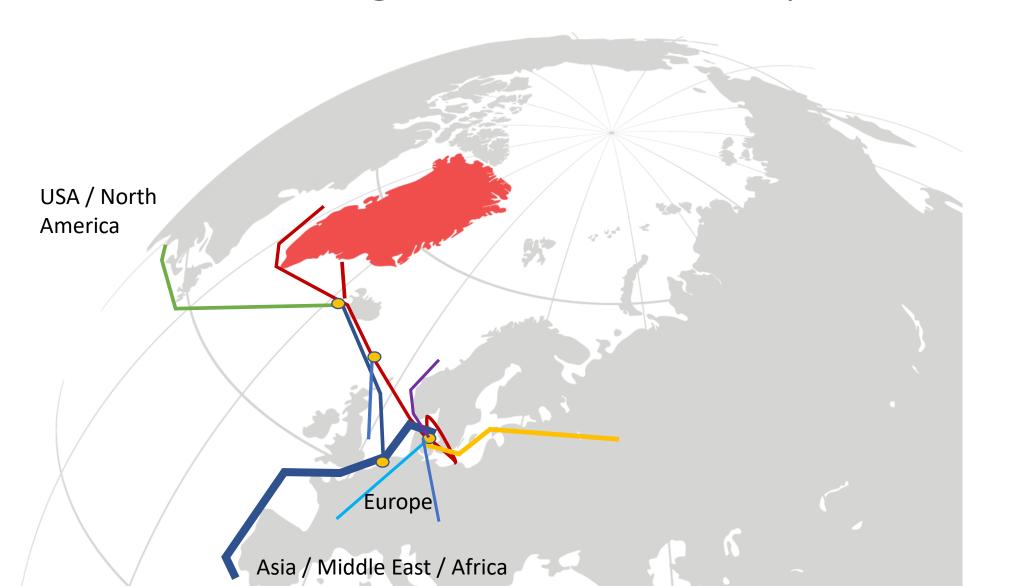
### No Port, No Quay, No Problem







### Linked to a global container system





## Owned by and proudly serving all of Greenland...













Oil Pollution risk Air Pollution Marine pollution

We all know about this...
And clearly most of us want to act!



### Well timed for cleaner shipping

- The road to a sustainable future

Fleet replacement





2016-2022 New Fleet / New technology

#### ROYAL ARCTIC

Sustainability Strategy

**ESG** 

SBTi / TCFD

Measurements

HFO ban for non purpose-built vessels

HFO ban for all vessels

Development of new fuels (P2X) and propulsion systems New fuels & infrastructure to support it



CII / EEXI
Emission
measurement and
compliance

Improvement Effort

2023 2024 2029 "2032"

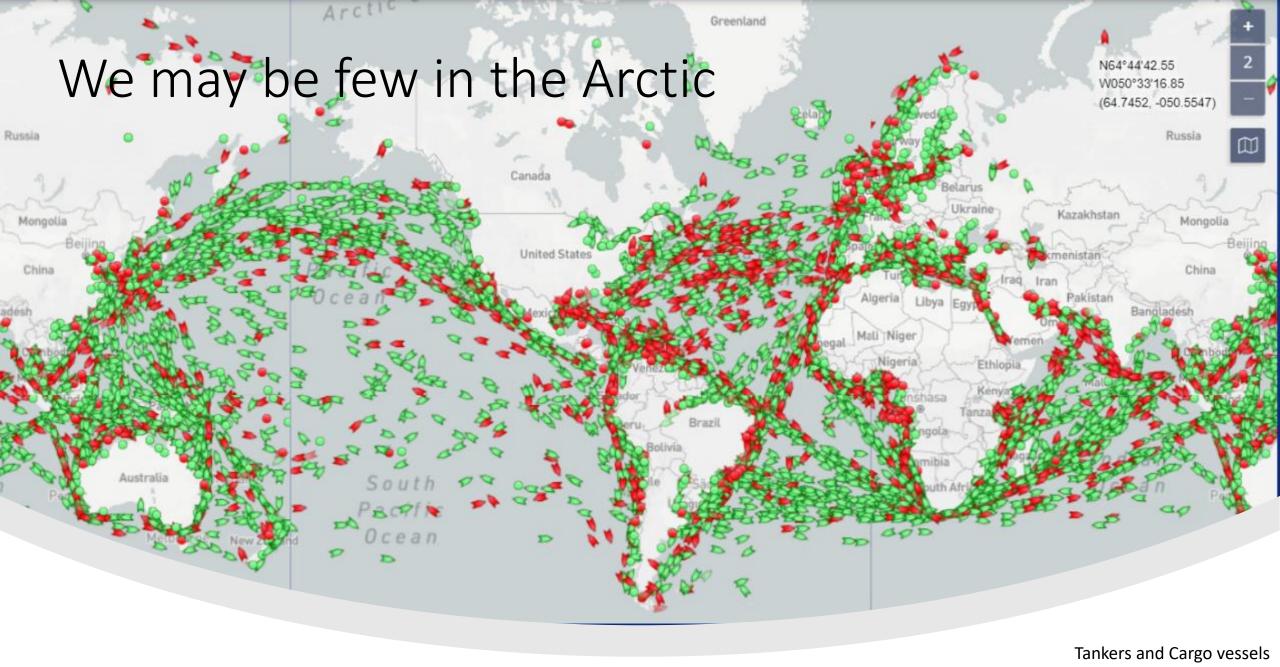


#### Risks: It's not all about emissions



- Marine pollution
  - Toxicity (Ammonia, Hydrogen, Methanol)
- Handling risks & feasibility
  - Bunkering infrastructure
  - Health and Safety
  - Space / Volume requirements on board





Tankers and Cargo vessels
August 26, 2022
Marinetraffic.com

# But -50% before 2050 is -50%



Table 3-2 Share of fuel consumption by ship type and size category in 2017, IMO Arctic polar

code area								
Ship type	<1000 GT	1000 - 4999 GT	5000 - 9999 GT	10000- 24999 GT	25000- 49999 GT	50000- 99999 GT	≥100000 GT	Totals
Oil tankers		1 %	1 %	3 %	16 %	2 %	1 %	23 %
Chemical and Product								
tankers	0 %	1 %	1 %	2 %	1 %			5 %
Gas tankers							1 %	1 %
Bulk carrier		0 %		1 %	4 %	0 %	0 %	5 %
General cargo	0 %	1 %	4 %	7 %	2 %			15 %
Container vessels			1 %	1 %				2 %
Ro Ro vessels	0 %			U %				0 %
Reefers	0 %	1 %	1 %	0 %				3 %
Passenger	0 %	1 %	1 %	1 %	1 %	1 %	0 %	6 %
Offshore supply vessels	0 %	2 %	1 %					3 %
Other offshore vessels	0 %	0 %	0 %					0 %
Other activities	2 %	3 %	4 %	3 %	0 %			12 %
Fishing vessels	5 %	19 %	1 %					25 %
Total	7 %	29 %	15 %	19 %	24 %	3 %	2 %	100%

Source: DNV GL – Report No. 2019-0226, Rev. 0 – www.dnvgl.com





