# Ship Traffic Analysis on the NSR and Development of the NSR's Transport and Logistics System









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# System's Approach to Arctic Logistics

Eurasian Arctic
Transportation and
Logistics System

Optimization of Intermodal Transport Infrastructure

Optimization of Logistics and Cargo Flow

Optimization of Transport Safety and Low Environmental Footprint

Traffic Analysis

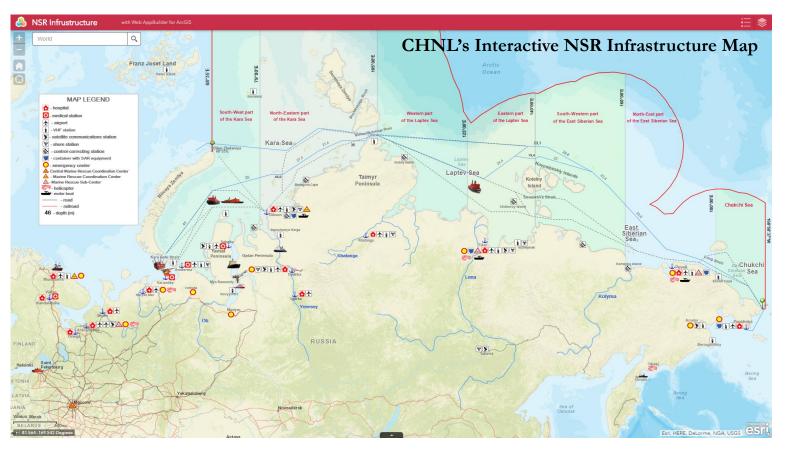
Cargo Base Analysis Cost Benefit Risk Analysis Investments & Financing Mechanism

Railway Infrastructure River Transport Infrastructure

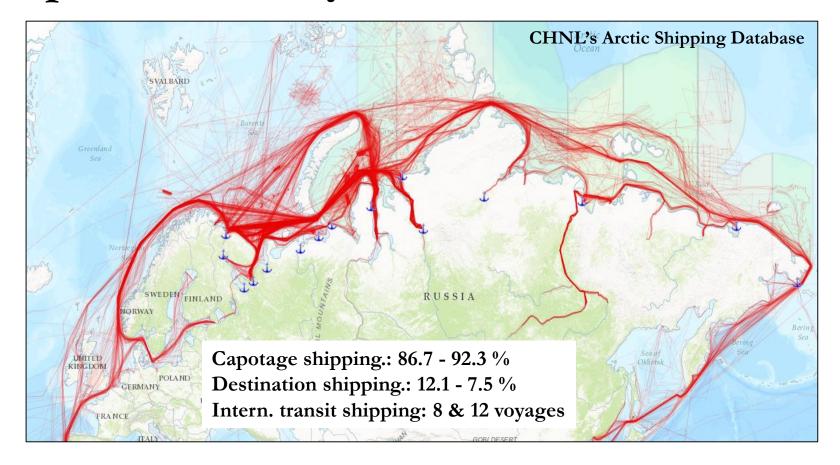
Maritime Infrastructure

Road Transport Infrastructure Air Transport Infrastructure

# Inventory of Infrastructure on the NSR



## Ship Traffic Analysis on the NSR 2016-2017



# Some NSR Transport Statistics 2016-2017

Number of vessels: 297 and 283

Number of voyages: 1,705 and 1,908

Vessels of less than 5000 GRT: 43% and 50%

Vessels with no or weak ice-class: 41.0% and 47.4%

Number of shipping companies: 129 and 121

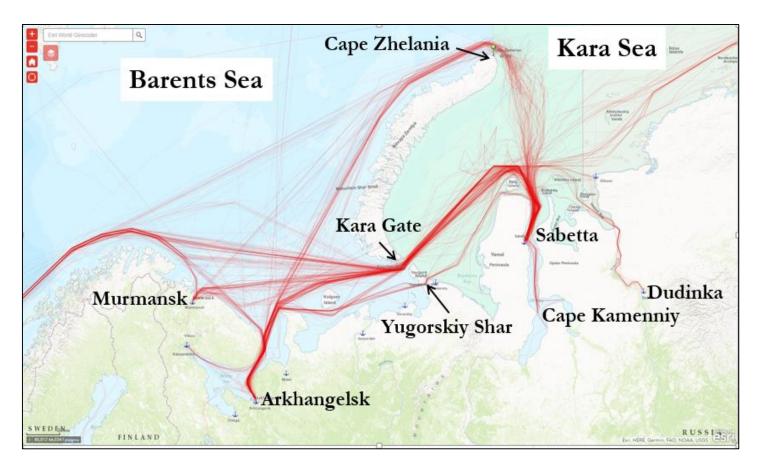
Number of Non-Russian companies: 54 and 47

Voyages made by Russian vessels: 70% and 81%

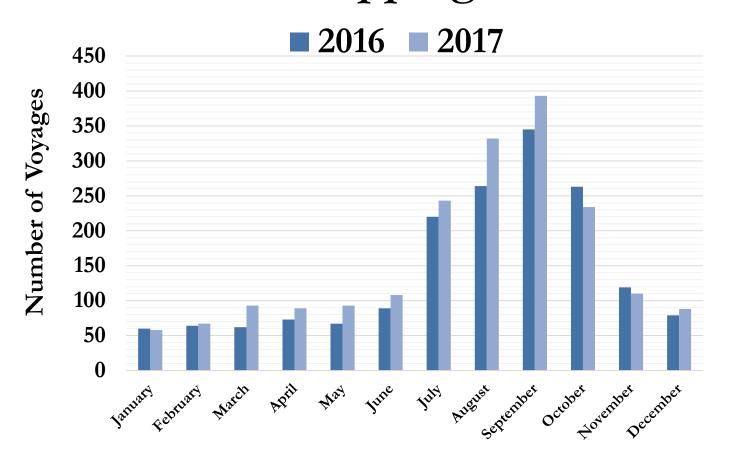
Voyages from European ports to NSR: 65 and 63

Voyages from Asian Pacific ports to NSR: 39 and 12

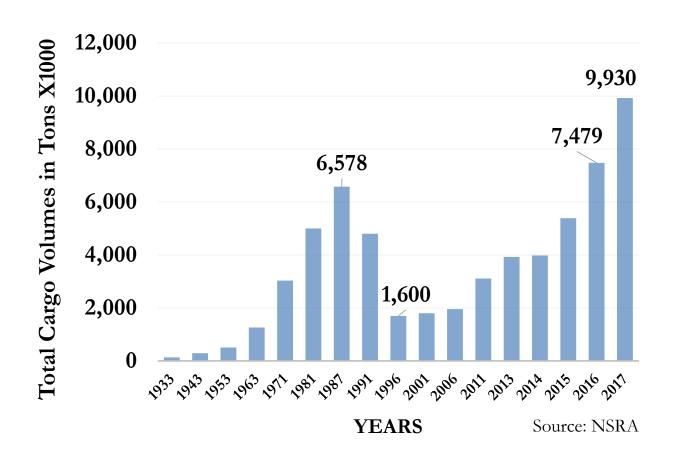
### SW Part of the Kara Sea



## Year-Round Shipping on the NSR



## Total Cargo Volumes on the NSR 1933-2017



# Three Modes of Maritime Transportation

#### Capotage Shipping

#### **Destination Shipping**

Int. T. Shipping

Resupplying remote Arctic communities with goods

Transport oil, coal, metals and ore from remote locations

Geological and geophysical exploration of Arctic seas

Establishing and servicing energy and mining projects

Servicing and maintaining several new security/military bases

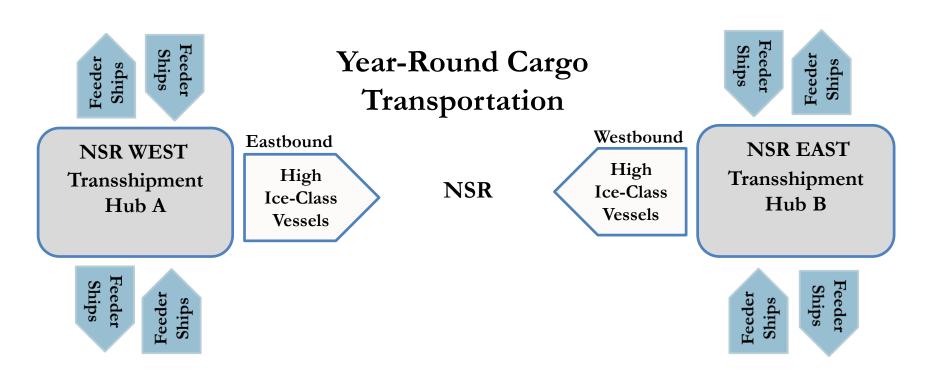
Modernization of existing Arctic ports and new port development

Shipments of project cargo for large Arctic energy and mining projects

Transport of LNG from the Yamal LNG plant (to be replaced by capotage) Demonstration voyages; repositioning of vessels

Transport of oil products and project cargo (e.g., windmill components); transport of coal and frozen fish/meat

# Arctic Transshipment Hubs



# NSR's Future Transshipment Hubs



An image of the Arctic sea ice on March 24, 2016 (maximum ice extent)

#### Thank You!

