



# Changes in critical transport flows in Finland

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# Events affecting the transport system

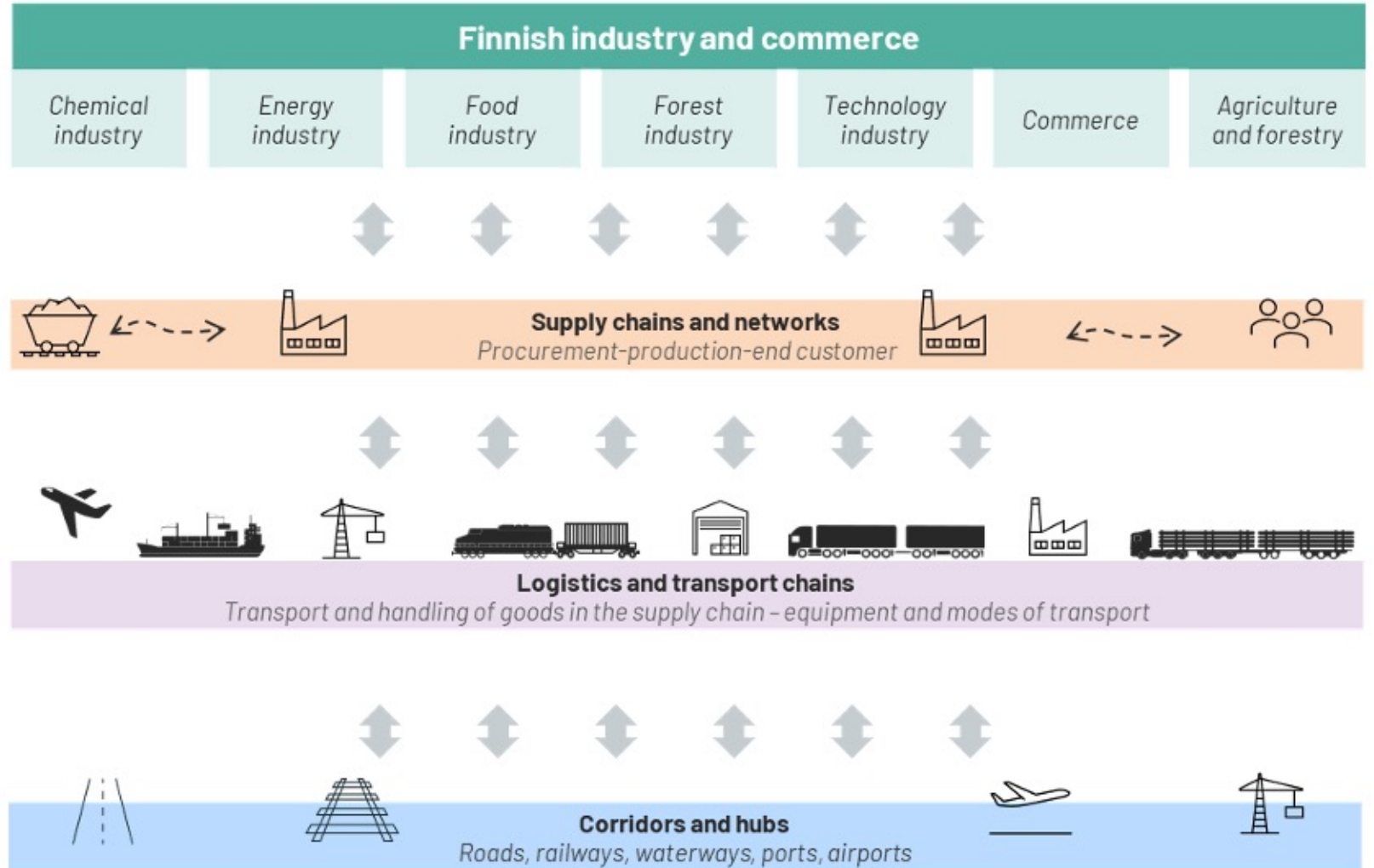
COVID 19



Russia's invasion of Ukraine

The power relations of trade blocs

The Green Transition



# "THE BIG PICTURE"

Russian trade is mostly coming to an end

Finland's position as an aviation hub has weakened

The role of maritime transport and the Baltic Sea has grown even more



Global supply chains have slowed down

Dependence on authoritarian states has finally entered the discussion

Further separation of the key trade blocs of USA, China and EU

The attractiveness of Finland as a peripheral market might be weakening



# Some of the critical raw materials and products



## AGRICULTURE AND FORESTY

### Critical input

- Fertilizers
- Protein feeds
- Plant protection agents
- Seeds

### Critical output

- Food
- Timber



## CHEMICAL INDUSTRY

### Critical input

- Fertilizer raw materials
- Medicinal components

### Critical output

- Fertilizers
- Medicine
- Industrial
- Chemicals
- Plastic



## FOOD INDUSTRY AND COMMERCE

### Critical input

- Agricultural products
- Packaging materials

### Critical output

- Food



## FOREST INDUSTRY

### Critical input

- Timber and wood chips
- Chemicals

### Critical output

- Pulp
- Paper products
- Wood products
- Energy



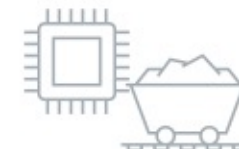
## OIL AND ENERGY INDUSTRY

### Critical input

- Crude oil
- Uranium
- Natural gas
- Energy production components

### Critical output

- Oil products
- Electricity
- District heating



## TECHNOLOGY INDUSTRY

### Critical input

- Components
- Minerals and metals

### Critical output

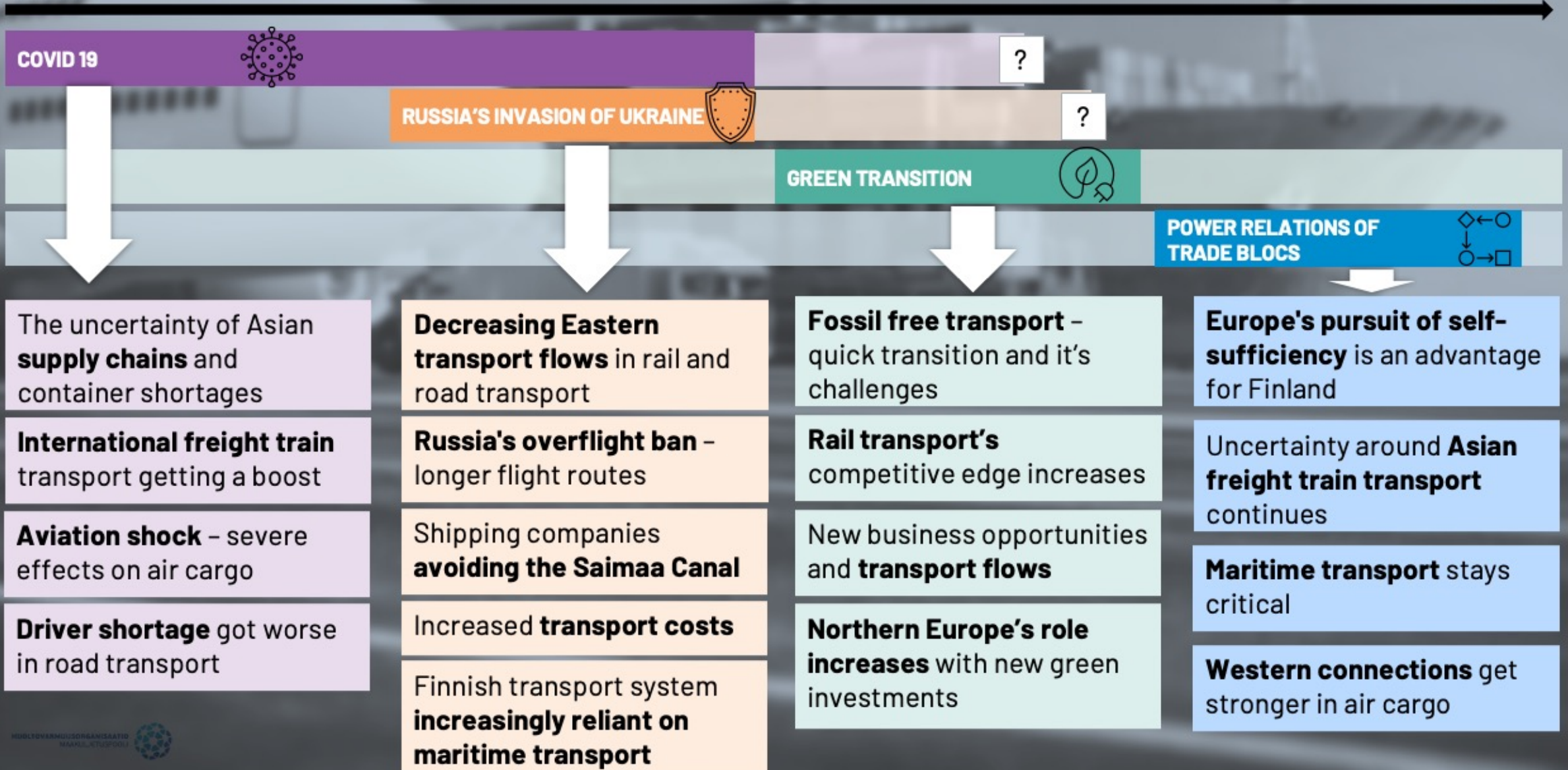
- Metal products and machinery
- Metal ores



# Events affecting the transport system

2020

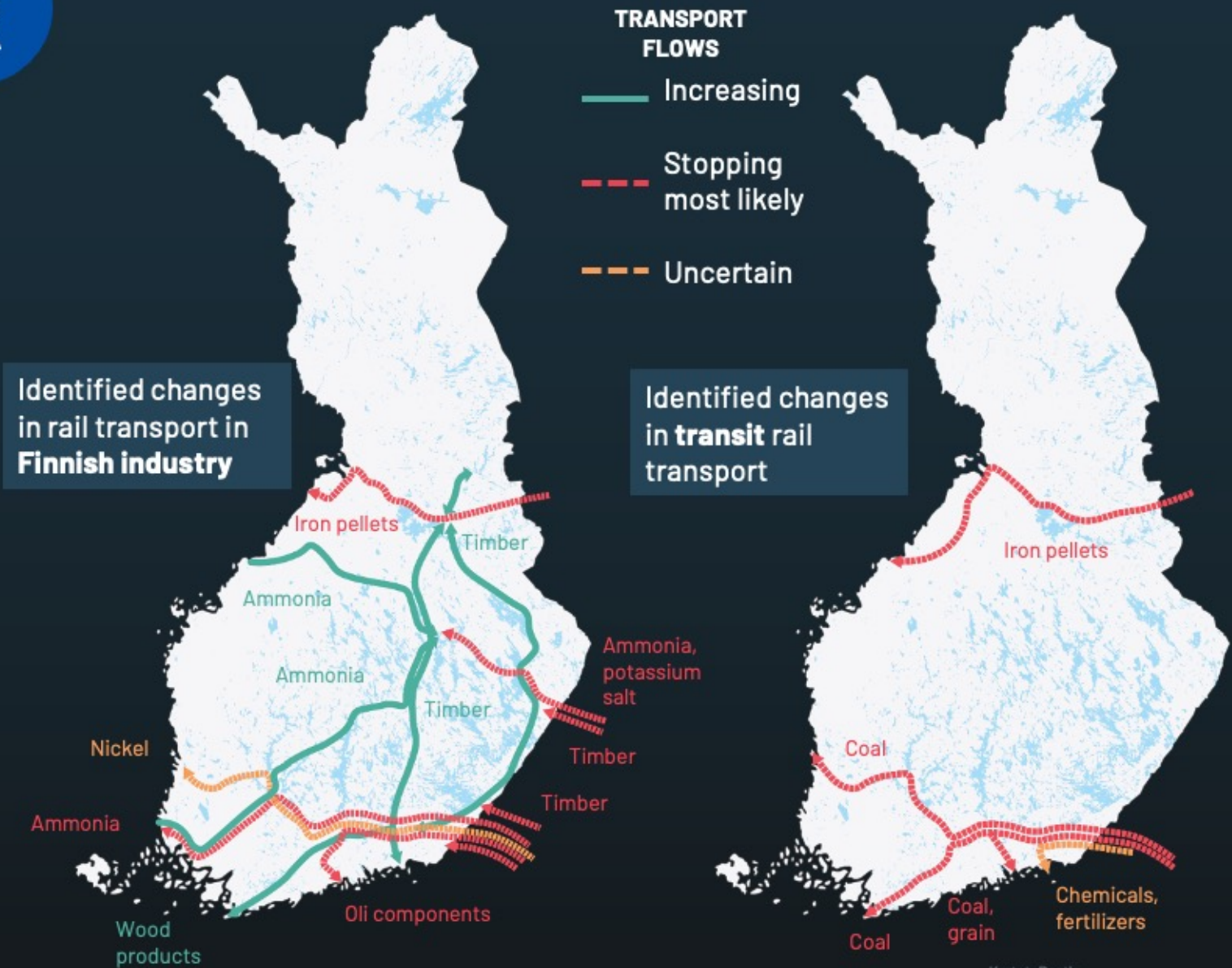
2025



# RAIL TRANSPORT



- Eastern traffic reducing → pressure to find new transport customers
- Timber transport increasing
- How will Finland connect to the west with rail in the future?
  - *Tornio/Haaparanta*
  - *European rail gauge?*



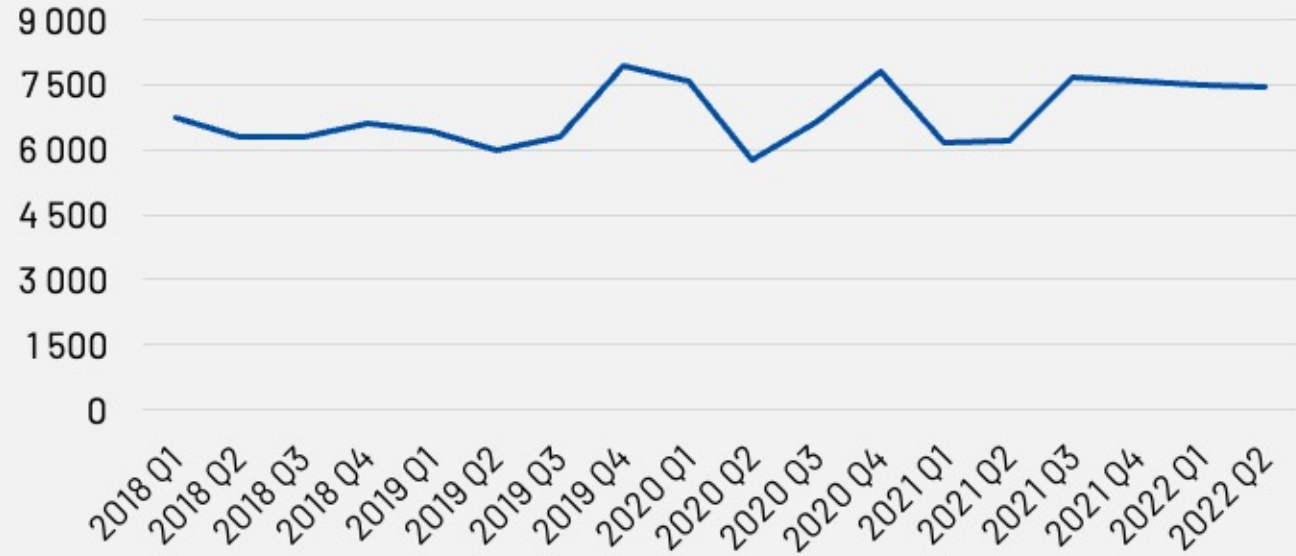
Kartat: Destia

# ROAD TRANSPORT



- Eastern road transport coming to an end
- The domestic market is stable
- The driver shortage is emerging in all industries
- Challenges in the availability of heavy equipment and components - delivery times 1-2 years
- Rising transport costs
- Alternative power train development
- The deterioration of the road network is worrying

Transport performance of domestic truck traffic 2018-2022, million tkm



# MARITIME TRANSPORT



- Role has increased
- Due to a shortage of containers, some shift to bulk carriers
- Crude oil shipments from Russia have ended
- The effects of the green transition are a challenge for northern maritime transport
- Finland's extensive port network is important for security of supply
- Finnish tonnage is important



MAP: **Finnish maritime transport in 2018**





# PORTS – A FEW HIGHLIGHTS



## Kokkola

- End of export transit of iron pellets
- The amount of ore imports has increased

## Pori

- The amount of ore imports has increased
- The export of ores and concentrates is growing.

## Raahe

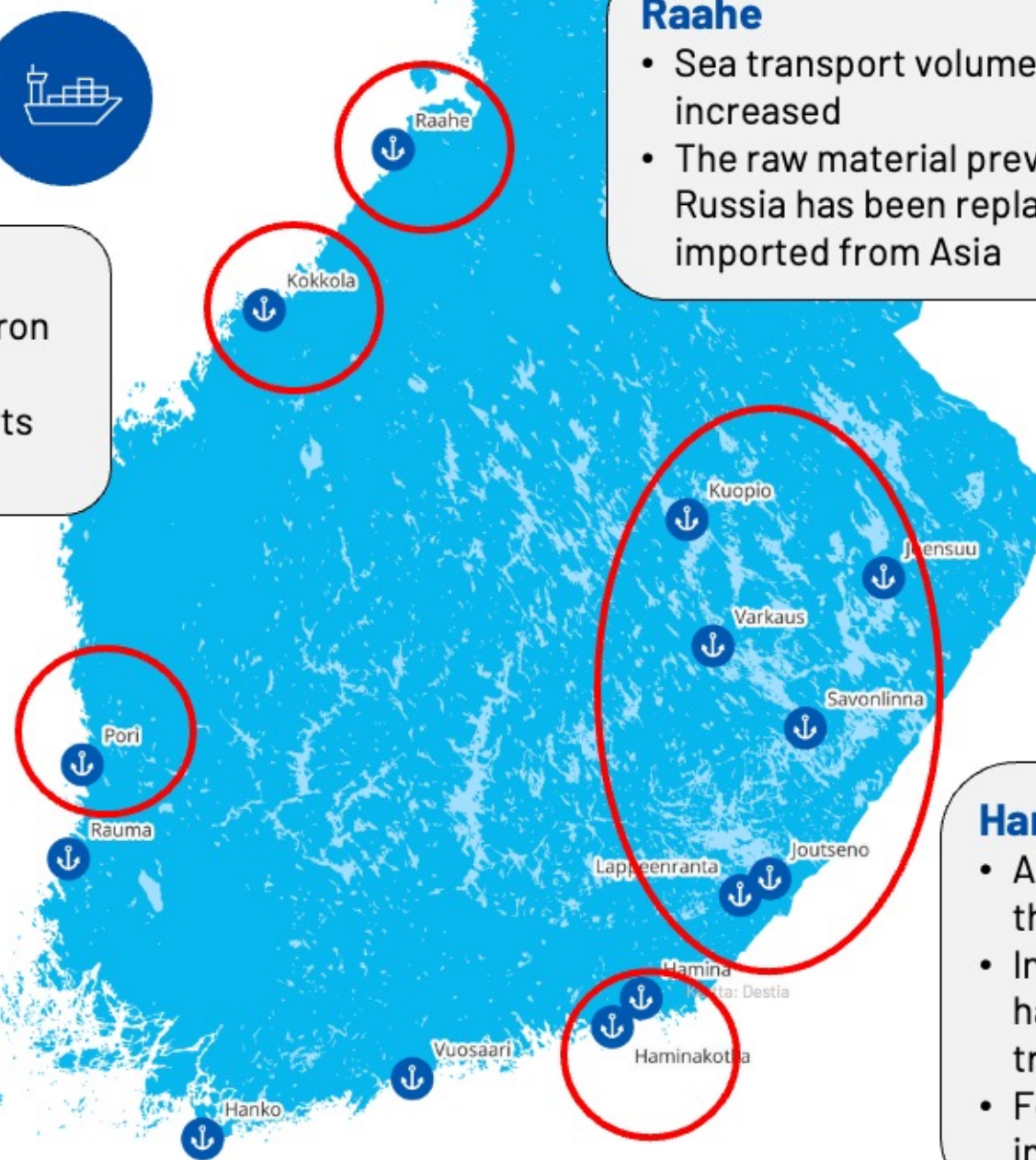
- Sea transport volumes of **iron ore** have increased
- The raw material previously procured from Russia has been replaced with iron ore imported from Asia

## Inland waterway ports

- Export and import transports have ended
- Within the country, timber floating, e.g., to the port of Lappeenranta

## HaminaKotka

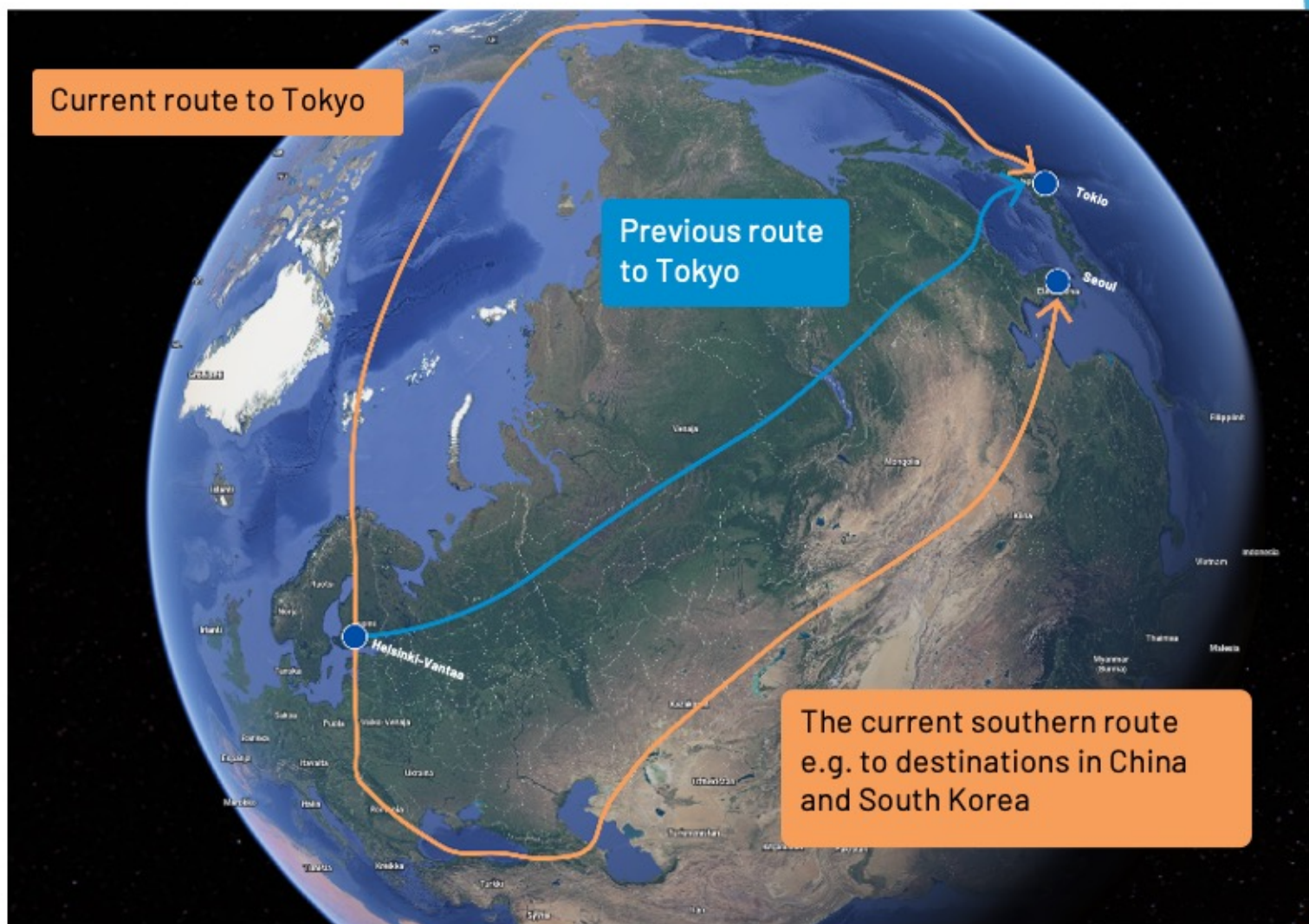
- A significant increase in the import of timber
- Inland water transports have been transferred to transport via HaminaKotka
- Fertilizer imports increased in 2022



# AIR CARGO



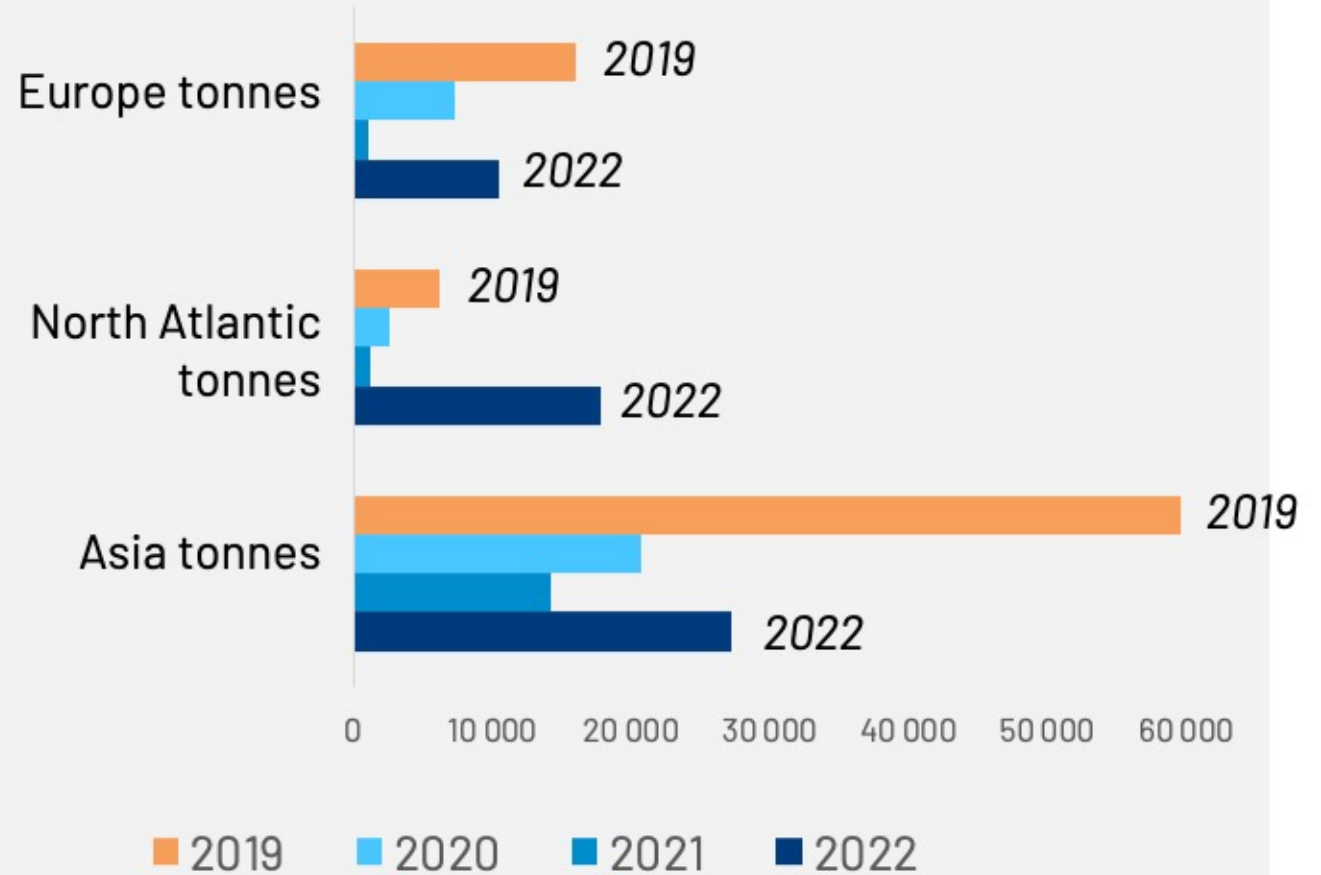
- The pandemic: belly freight capacity out of play
  - 75% of Finnish air cargo is belly freight
- Russia's overflight ban: significant loss of competitive advantage for Helsinki-Vantaa
- Finnair's Asia strategy renewed
  - from a focused Europe and Asia broker to a more decentralized strategy: Middle East, Europe, North America, narrower Asia
- Finland's extensive airport network is important for security of supply





North Atlantic volumes are increasing

### Finnair air cargo 2019-2022 (January-June)





Finland's logistics system has withstood the "shocks" of the operating environment well.

Resilience is at a good level, but we must prepare for the future by developing western connections and recognizing the vulnerability of the Baltic Sea.



# The openness of the Baltic Sea is easily taken for granted

*- Excerpt from an interview conducted during work*

