



*Towards an integrated transport system in the  
Baltic Sea Region*

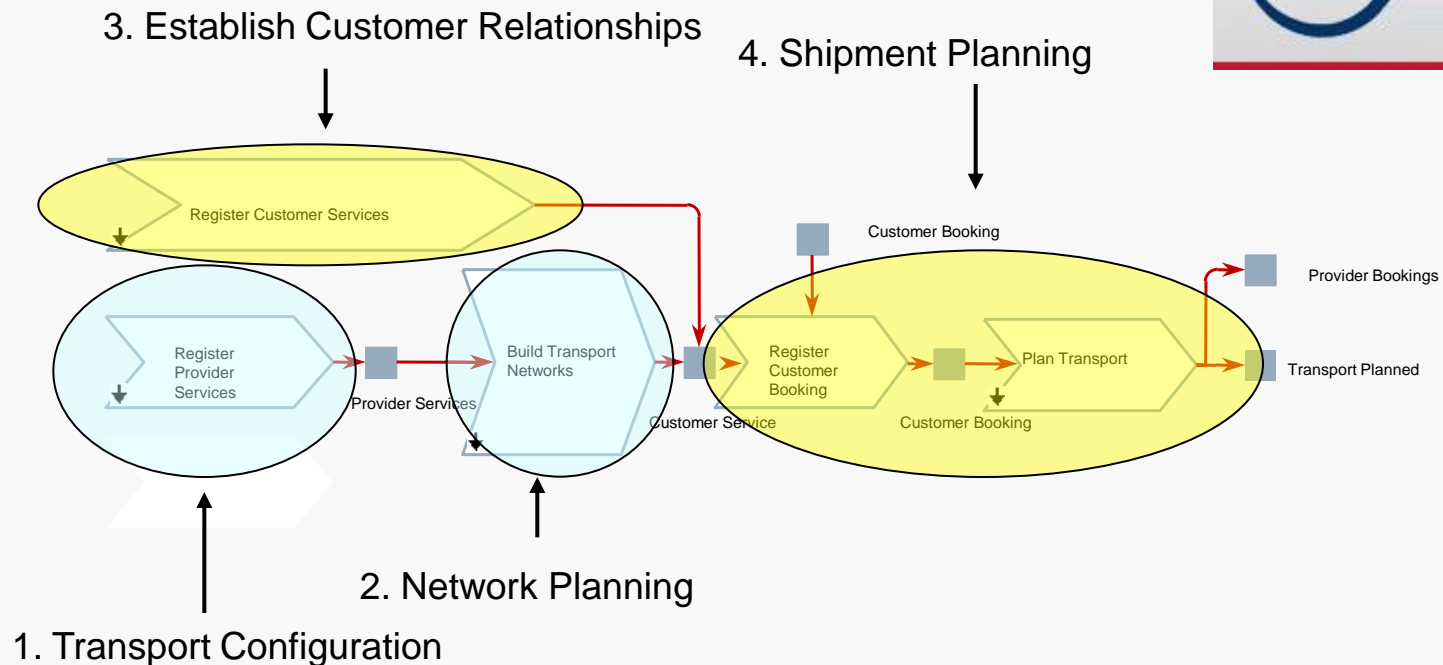
## Deployment of ICT toolbox supporting companies in optimal modal choice

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Poznan, Poland  
Leszek Andrzejewski

*Green Corridors Stakeholders Forum Gdansk, 24 October 2011*

# ITC application for planning intermodal supply chains

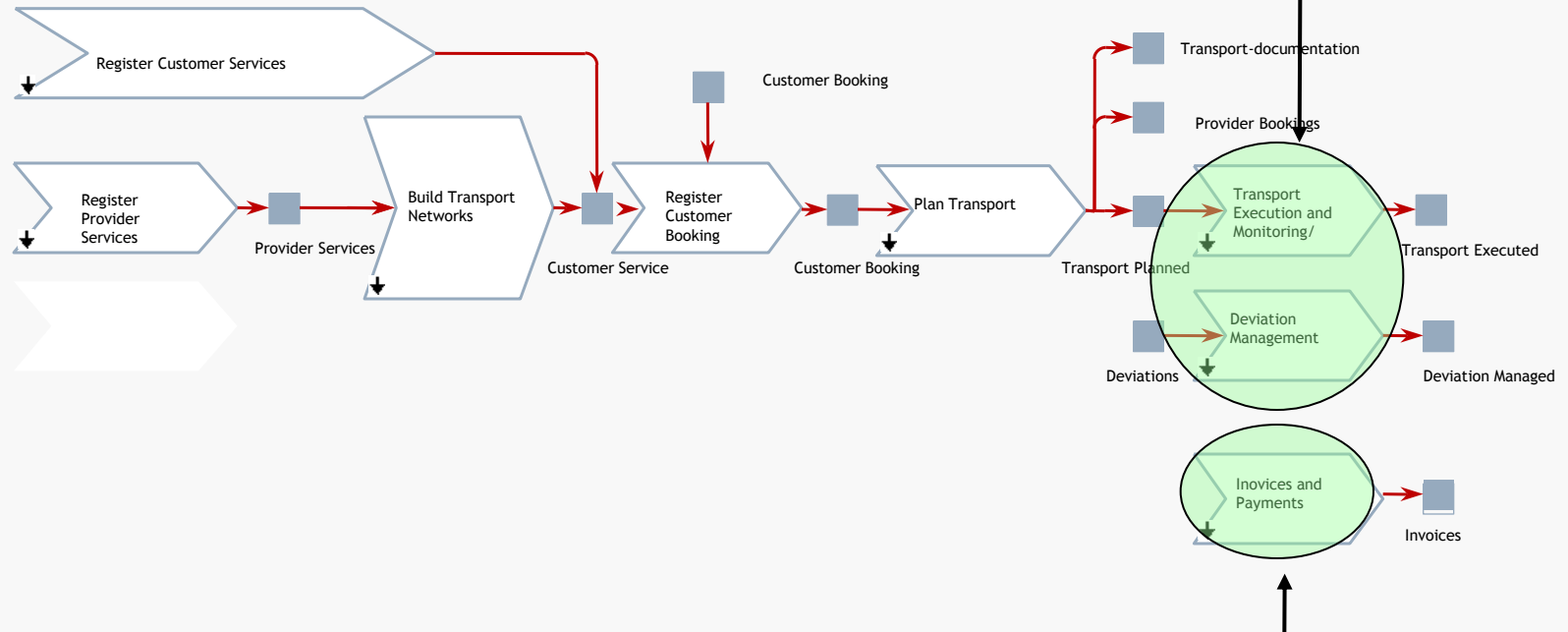
## Planning module



# ITC application for planning intermodal supply chains



## Operational module



## 5. Transport Execution

## 6. Invoice and Payments



Project part-financed  
by the European Union  
(European Regional Development Fund)



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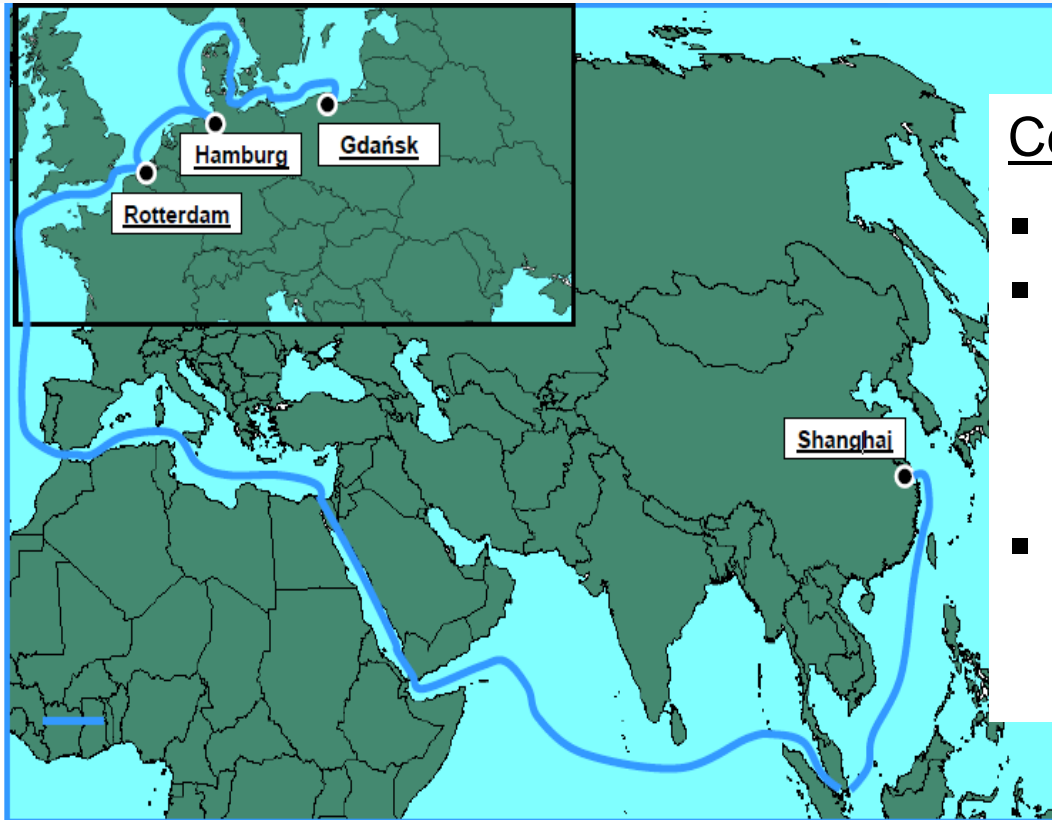
# Objectives

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- ❑ building data base of the transport operators and their services in selected transport corridors
  - Far East – Poland
  - Poland – Sweden / Norway
- ❑ demonstrations for the freight market stakeholders
  - functionality of a tool and how it may be helpful in freight decision making
  - all possible transport alternatives across different transport modes
  - scale of benefits resulting from the use of specific modes
- ❑ expected results:
  - set of Key Performance Indicators for transport service quality evaluation
  - set of KPI for tool's implementation process evaluation
  - demo version of the tool functionalities for further dissemination
  - deployment plan
  - cluster of transport operators

# Selected transport corridor

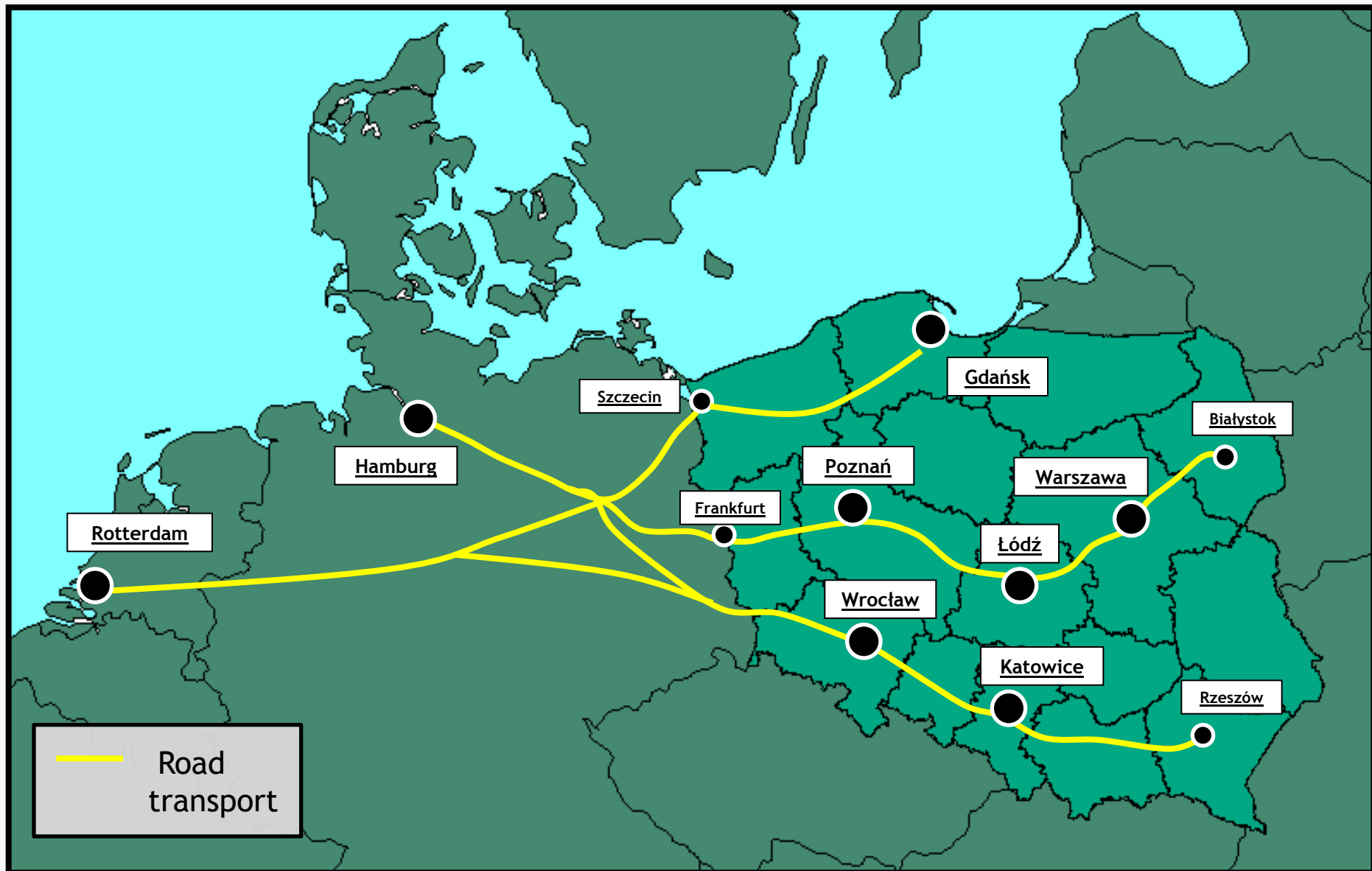
Container transport route from the Far East to Poland with the alternative use of gateway ports of Rotterdam, Hamburg or Gdansk



## Corridor profile :

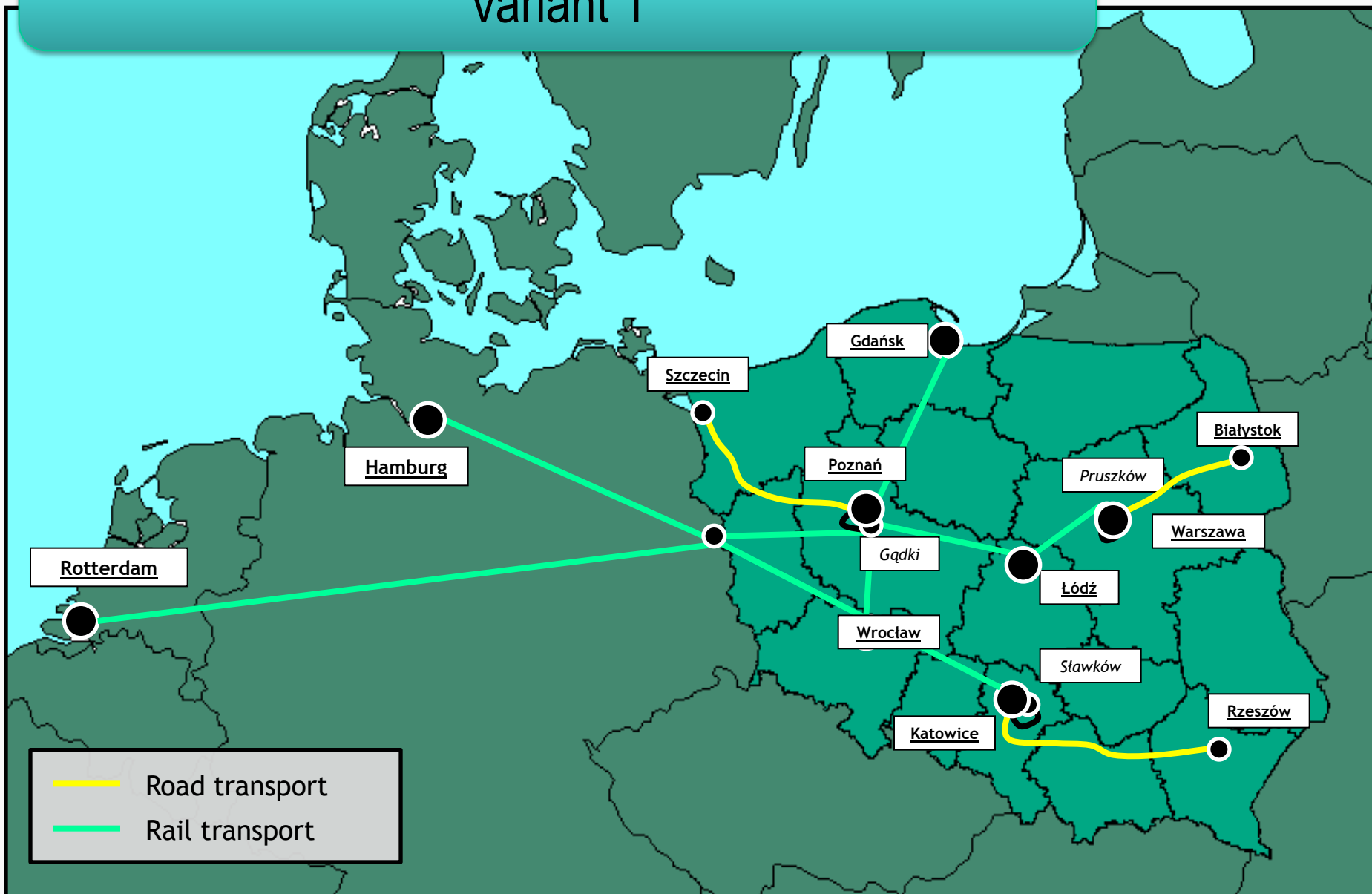
- sufficient volumes
- full range of intermodal alternatives on the last route section (Gateway European port – final receiver)
- modal balance in terms of expense level

# Containers on-carriage – by road



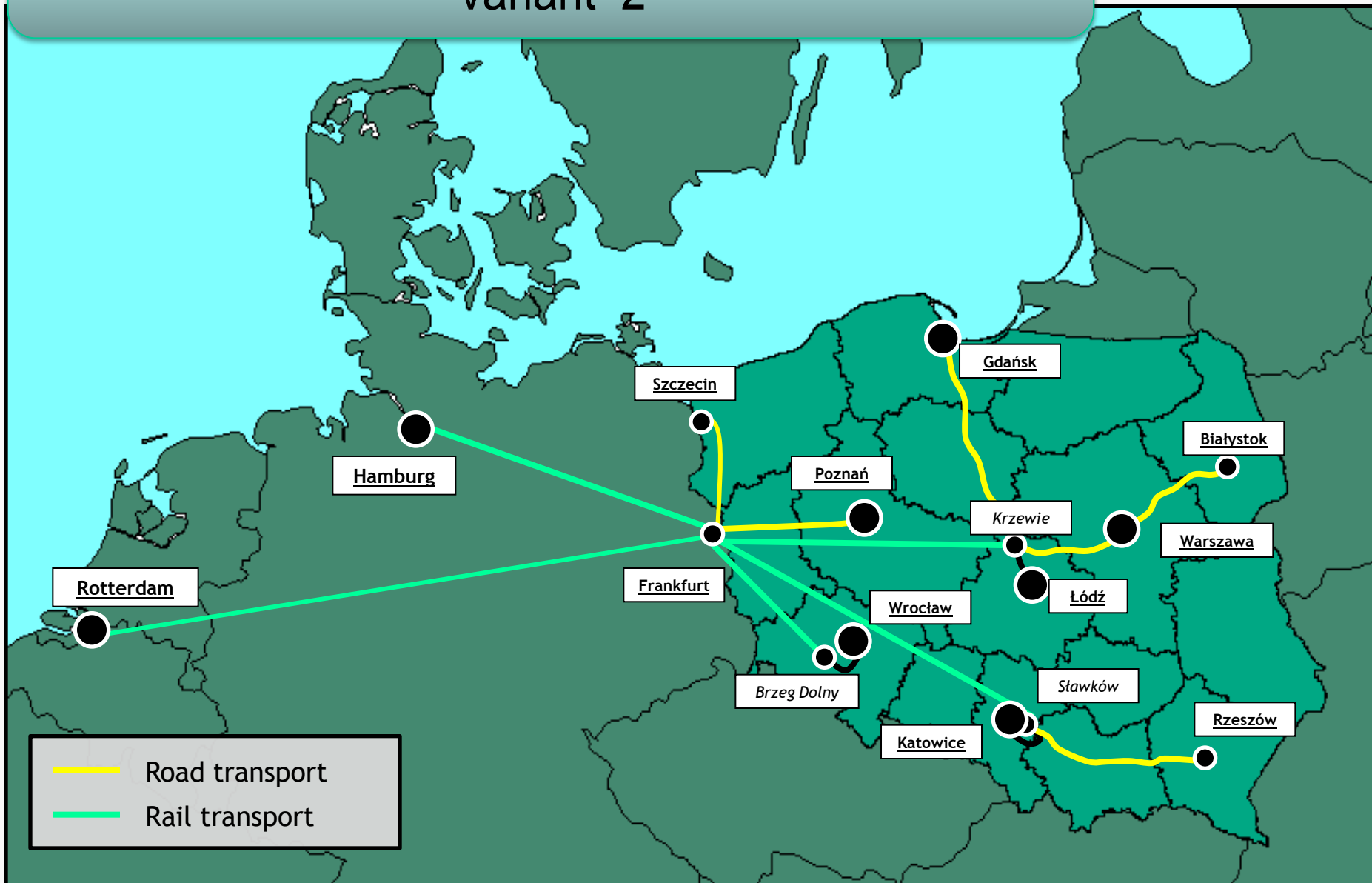
# Containers on-carriage by block trains

## Variant 1



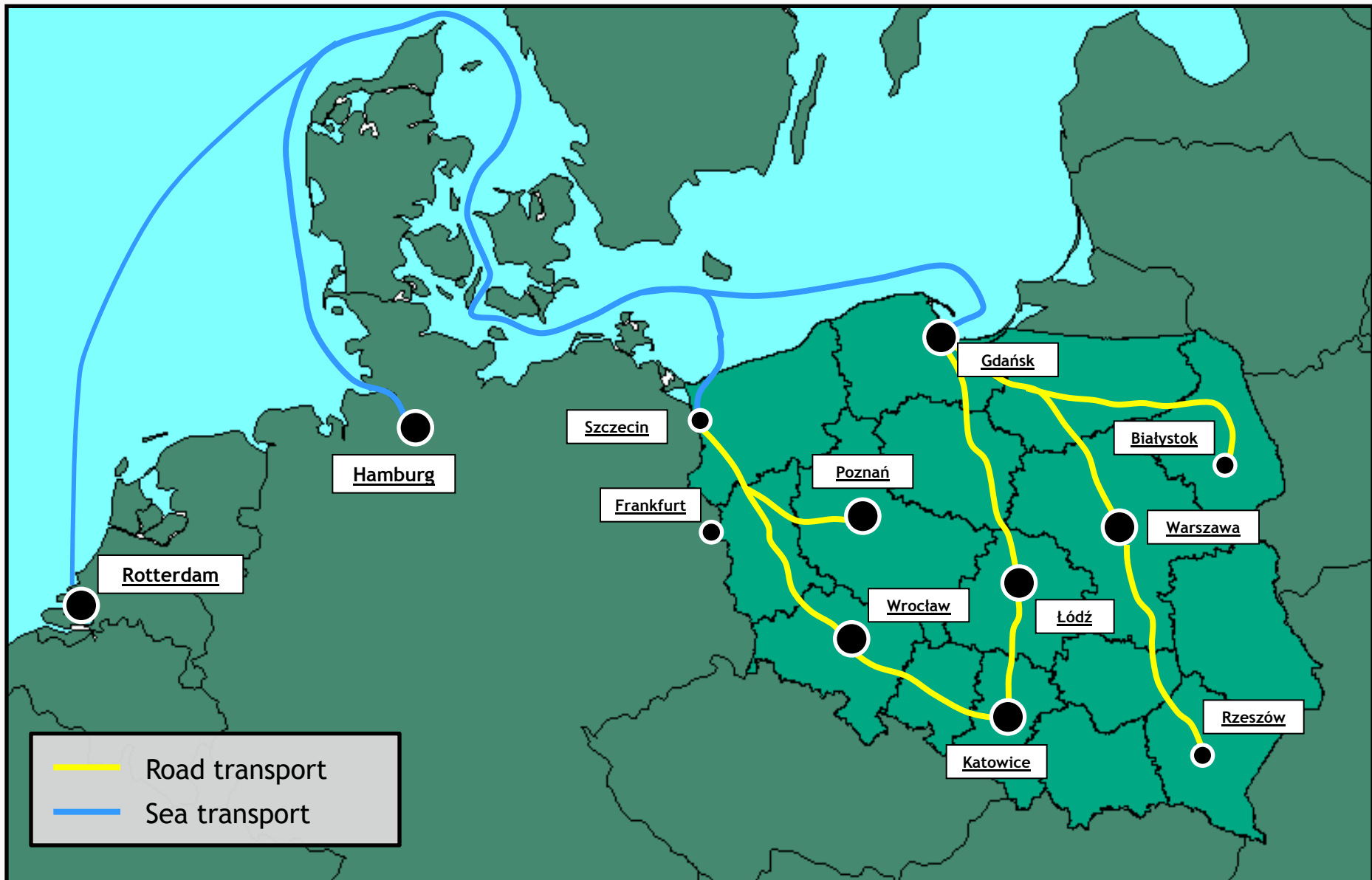
# Containers on-carriage by block trains

## Variant 2

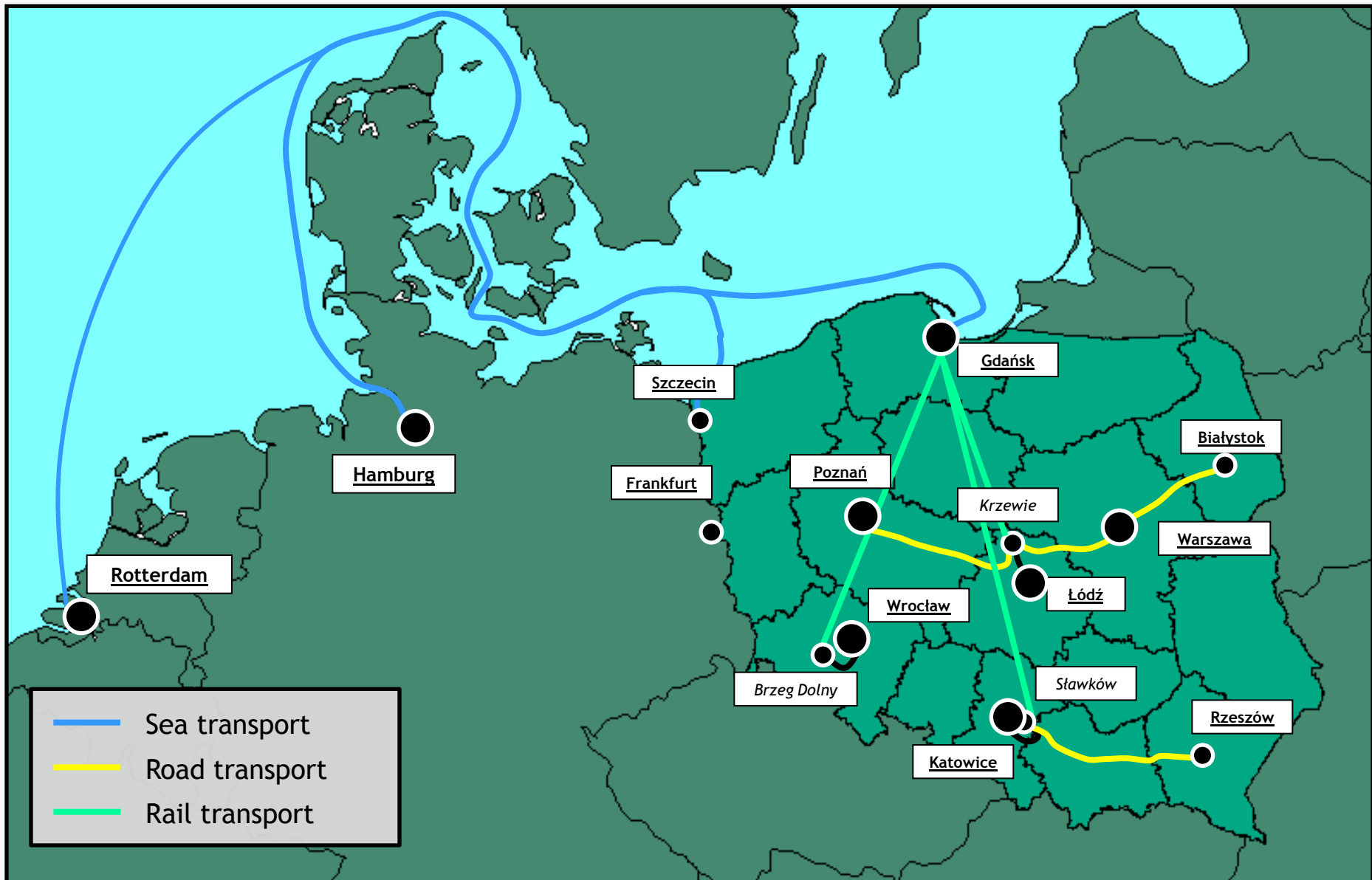




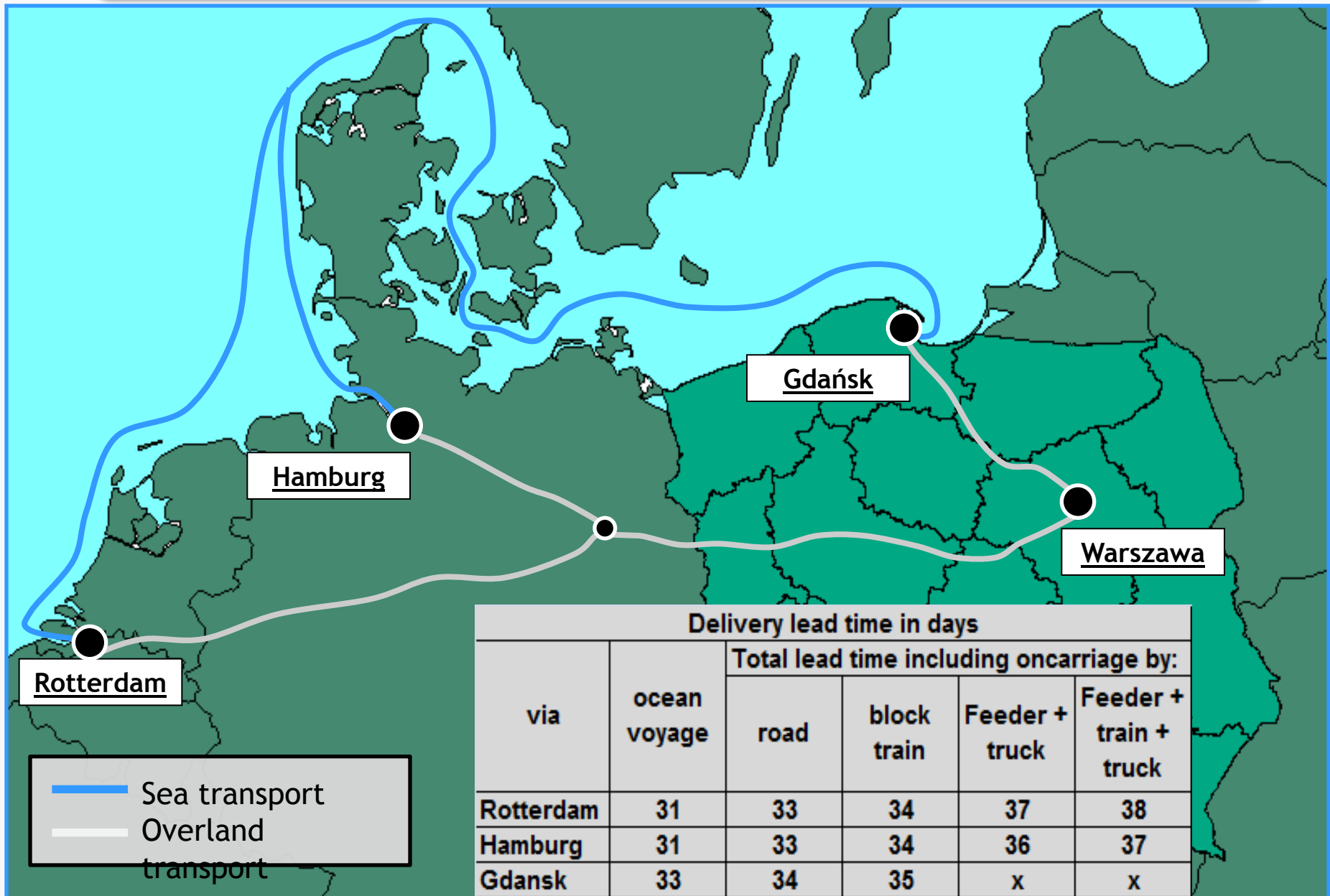
# Containers on-carriage by feeders and on road



# Containers on-carriage by feeders on rails and road



# Delivery lead time in days



# Cost analysis assumptions

## 1. Supply patterns in consideration:

- ☐ 1 x 40 FT - representing ca. 65% of supplies
- ☐ 1 x 20 FT - used for transport of heavy loads
- ☐ 2 x 20 FT – used for transport of light loads addressed to different receivers

## 2. Scope of expense analysis

- ☐ Freight charge for transport of loaded container offered by co-operating transport operators
- ☐ THC - Terminal Handling Charges in sea ports
- ☐ Charge for return of empty container (except ocean section)

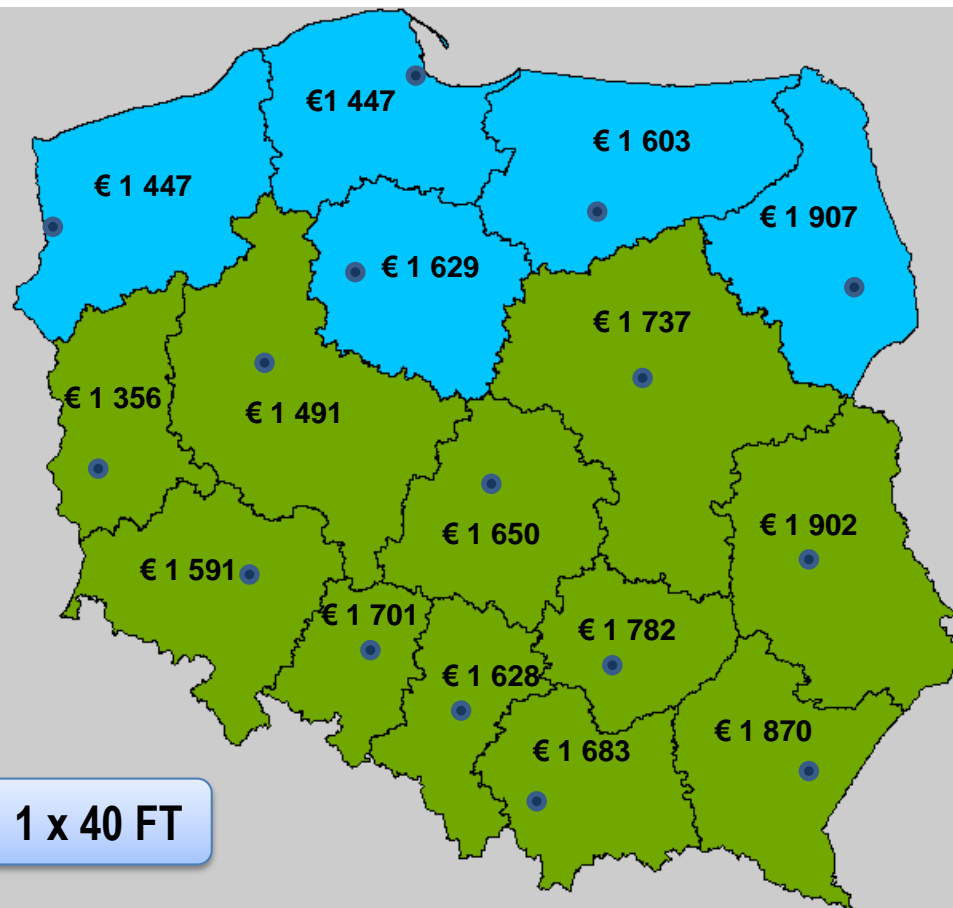
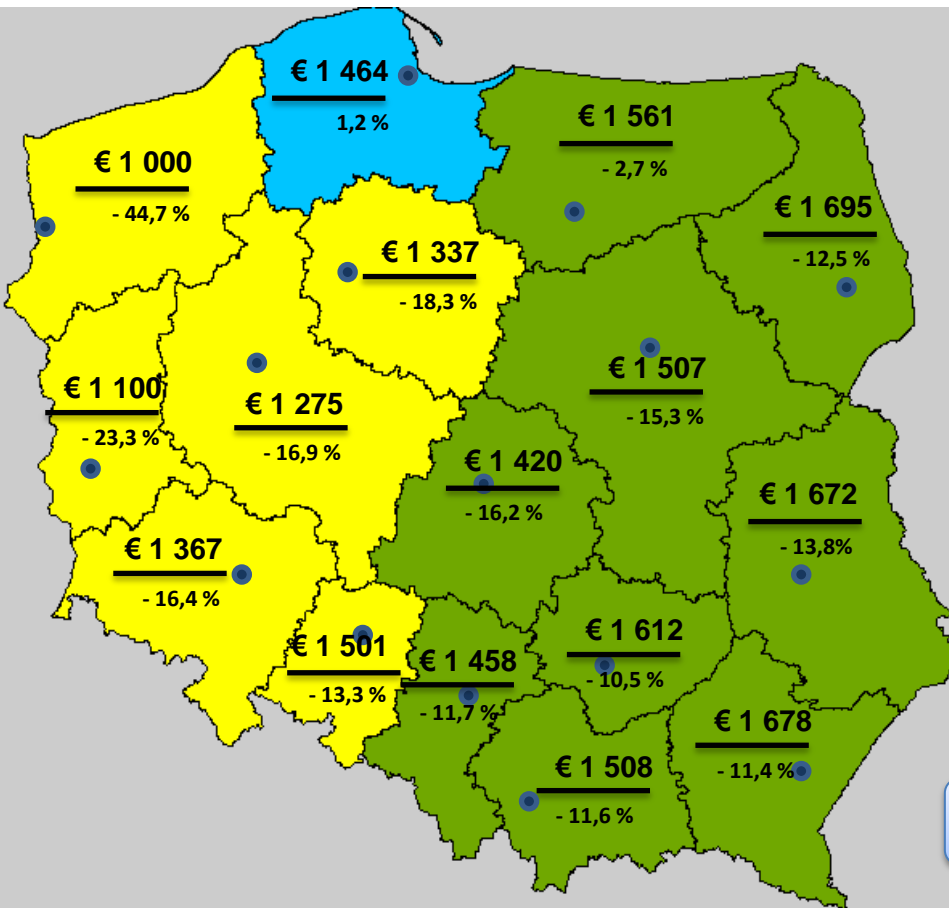
## 3. Freight charges level

- ☐ charges representing level valid in the 1st part of 2011
- ☐ charges do not embrace volume discounts

# FREIGHT RATES COMPARISONS – THE FIRST MODAL CHOICE

Route: Hamburg - Poland

Route: Rotterdam - Poland



1 x 40 FT



Road



Block train



Feeder

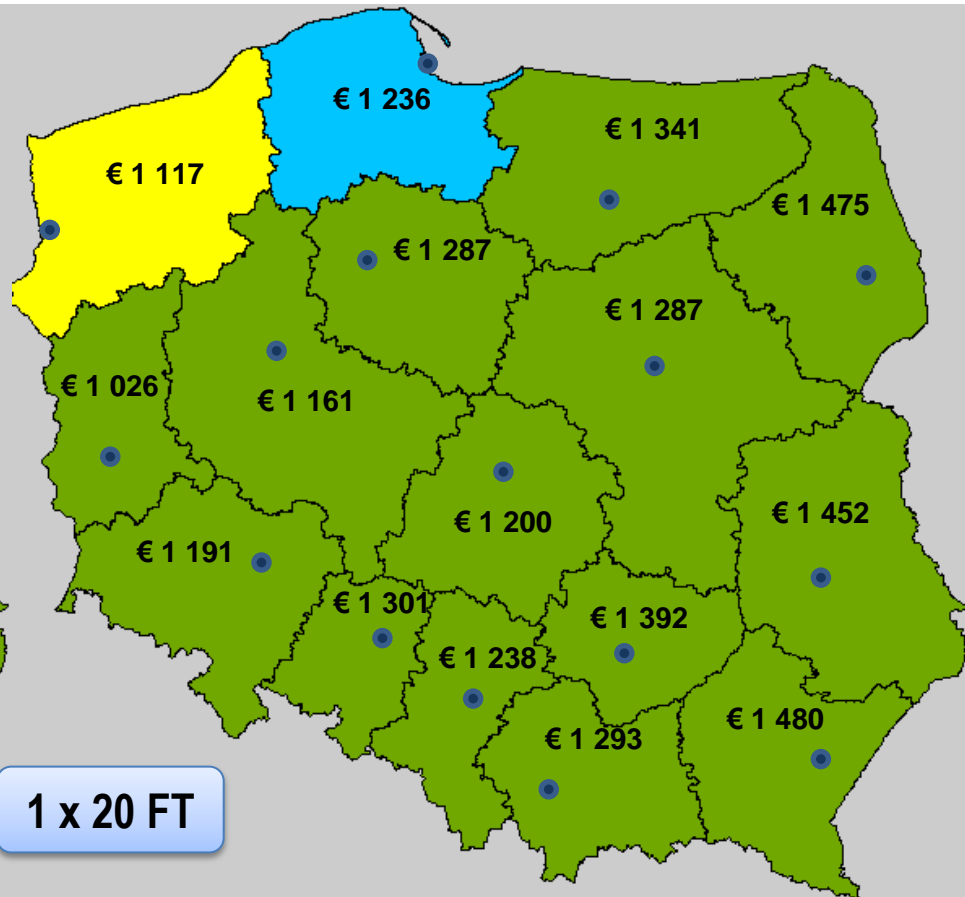
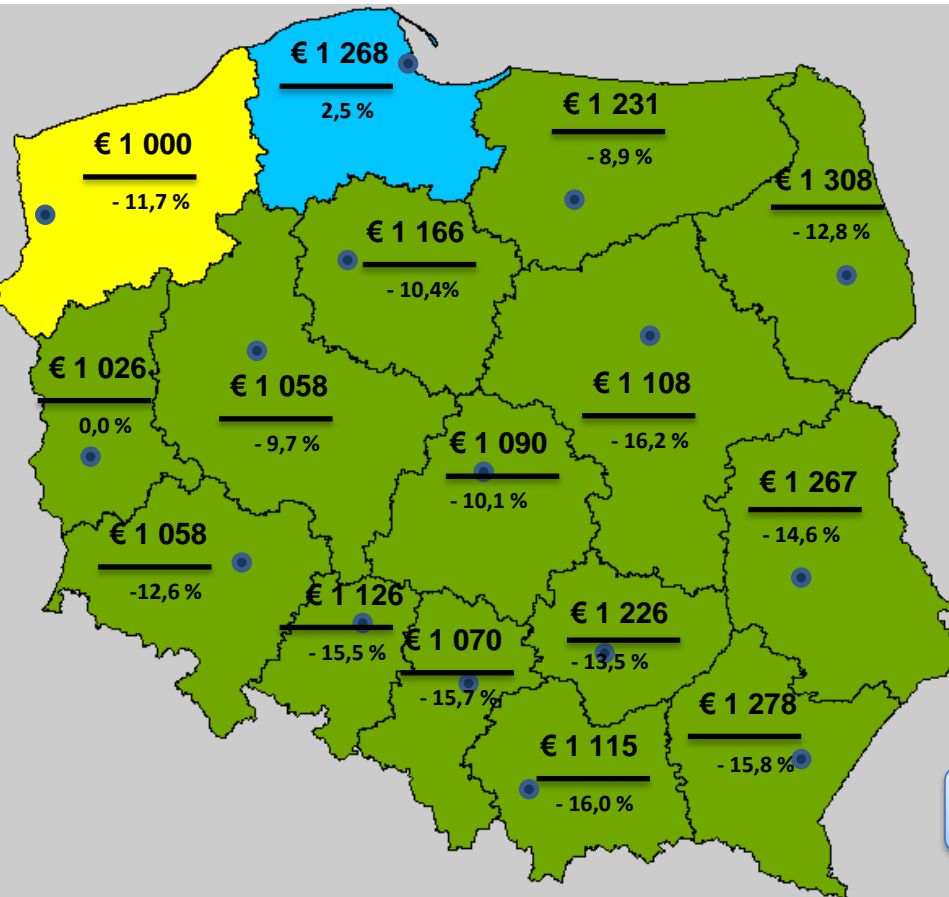


Direct ocean deliveries

# FREIGHT RATES COMPARISONS – THE FIRST MODAL CHOICE

Route: Hamburg - Poland

Route: Rotterdam - Poland



1 x 20 FT



Road



Block train



Feeder

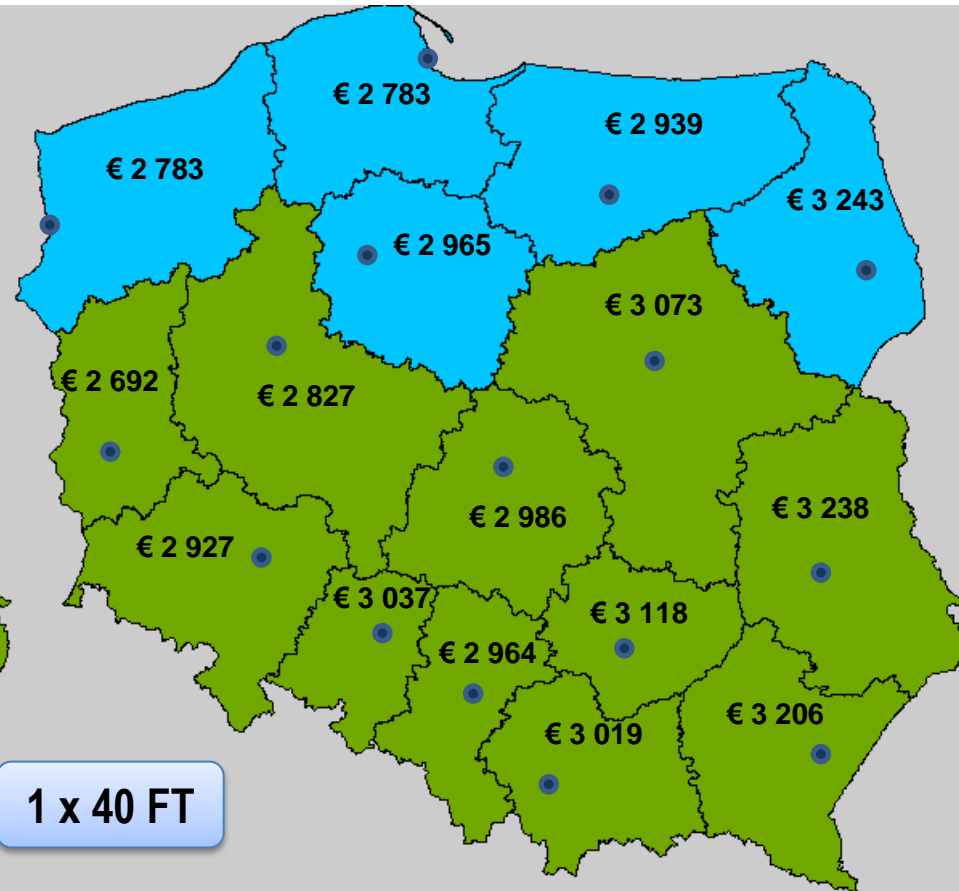
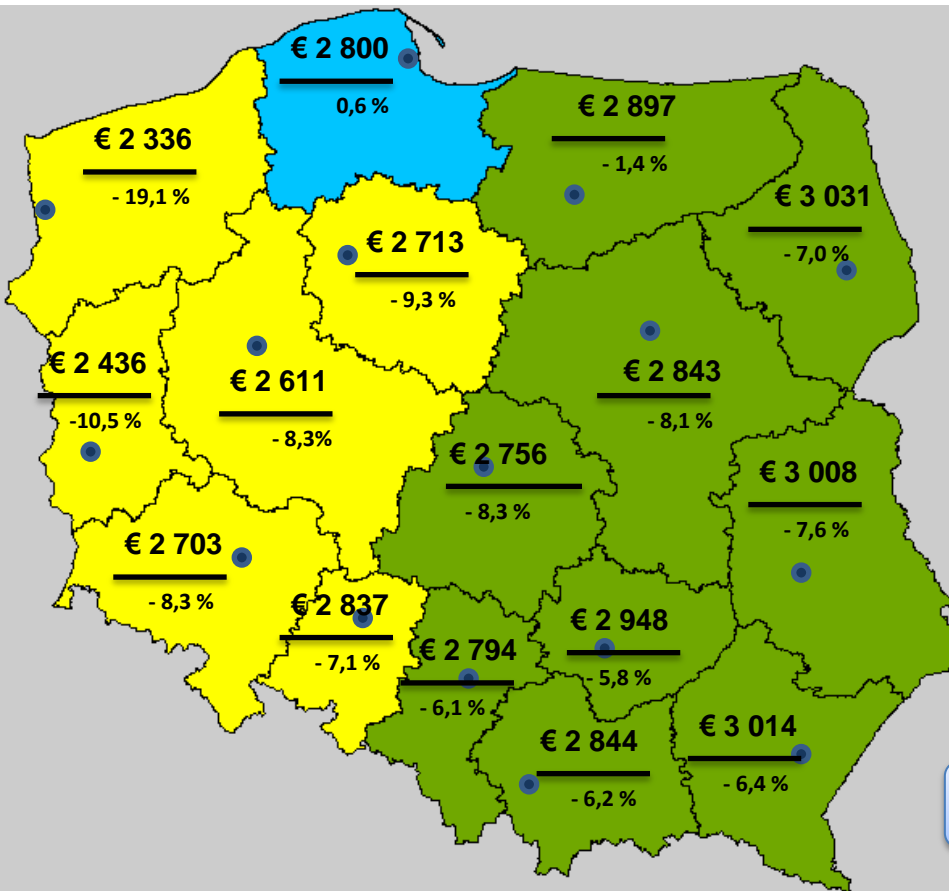


Direct ocean deliveries

# FREIGHT RATES COMPARISONS – THE FIRST MODAL CHOICE

Route: Shanghai - Hamburg - Poland

Route: Shanghai - Rotterdam - Poland



1 x 40 FT



Road



Block train



Feeder

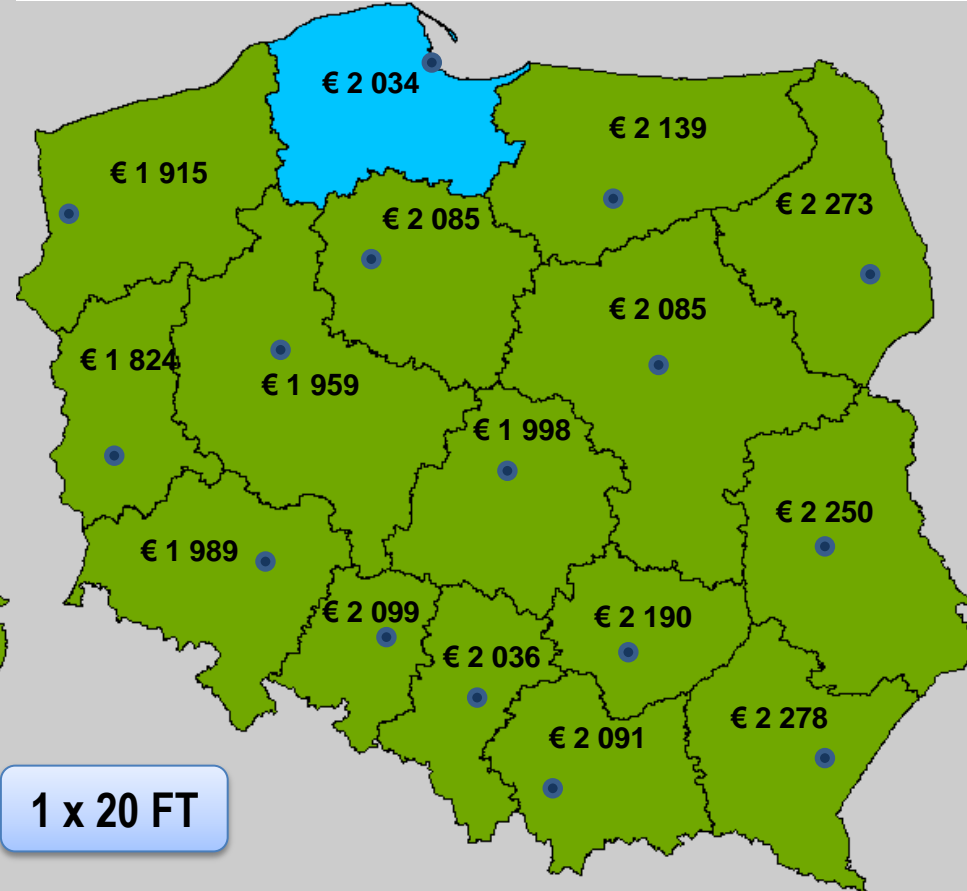
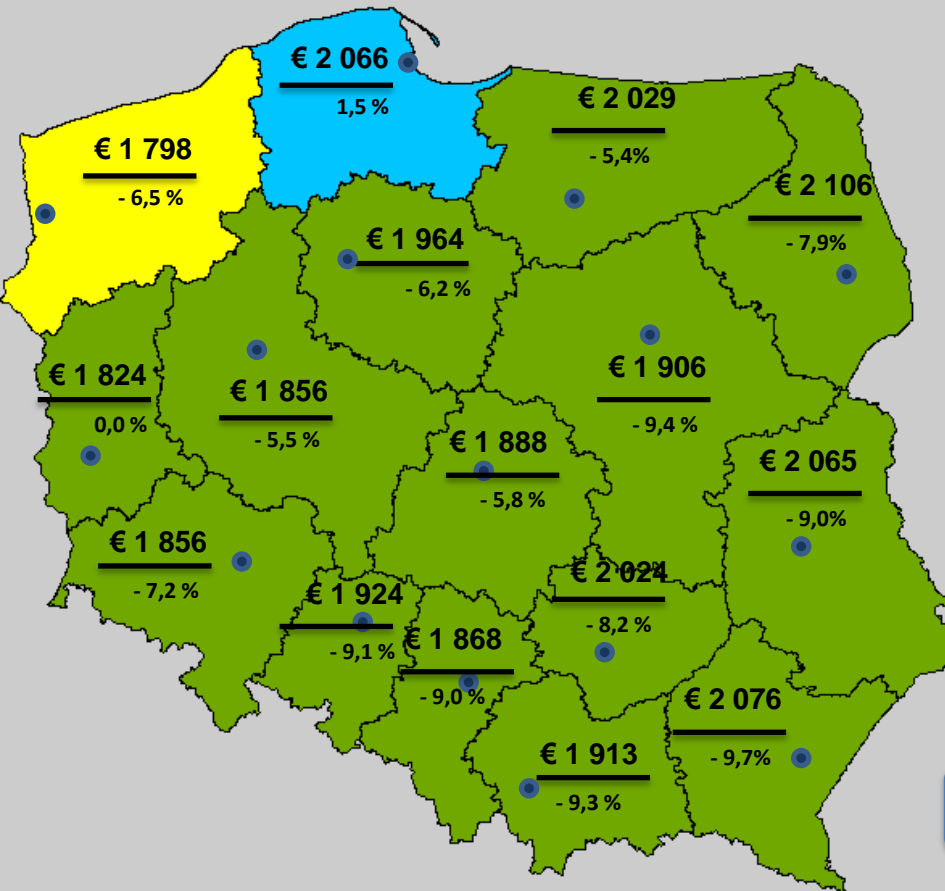


Direct ocean deliveries

# FREIGHT RATES COMPARISONS – THE FIRST MODAL CHOICE

Route: Shanghai - Hamburg - Poland

Route: Shanghai - Rotterdam - Poland



1 x 20 FT



Road



Block train



Feeder



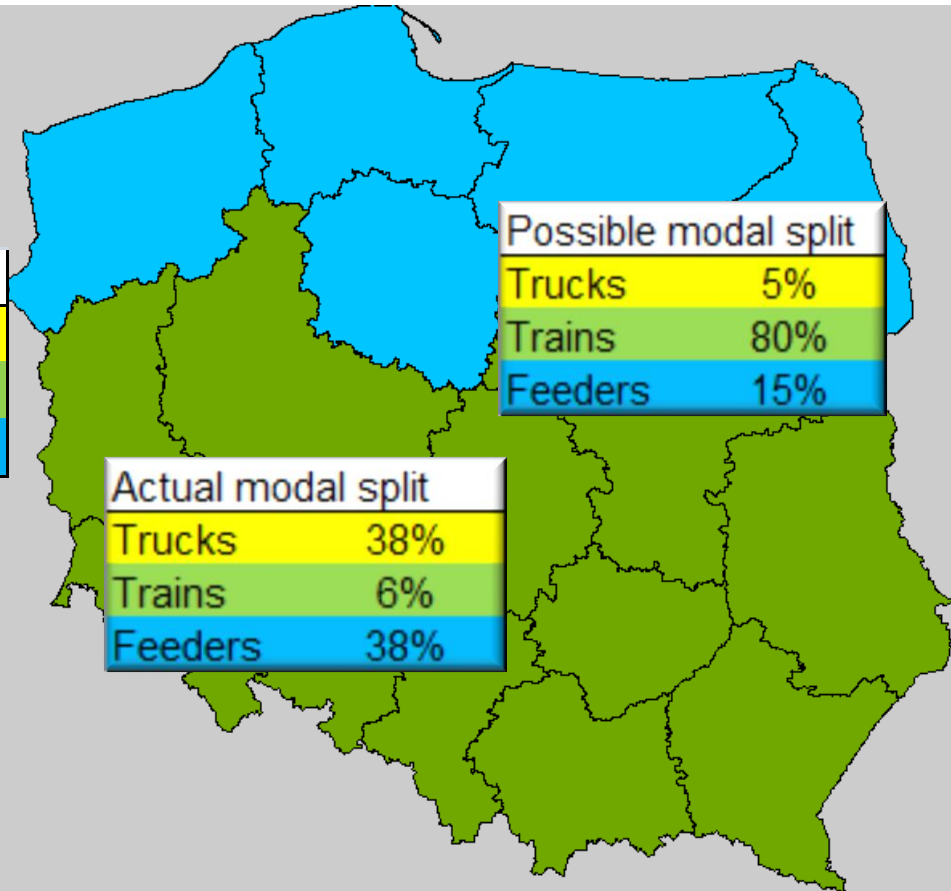
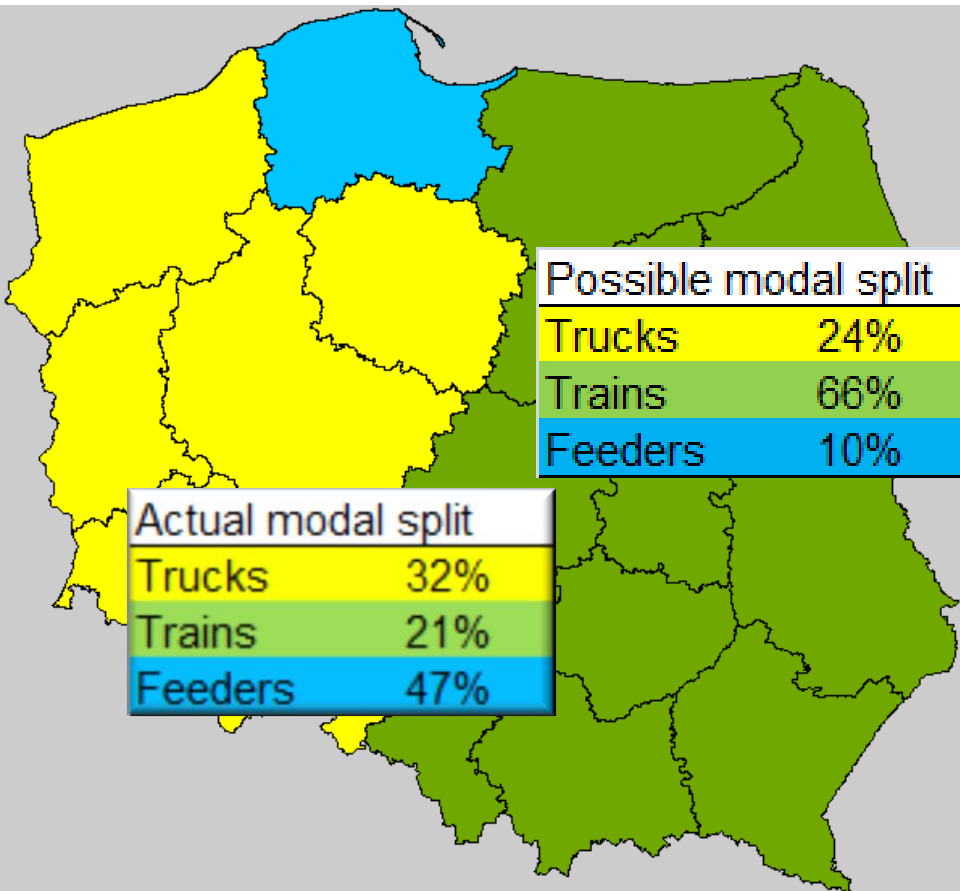
Direct ocean deliveries



## MODAL SPLIT

Route: Hamburg - Poland

Route: Rotterdam - Poland



Road



Block train



Feeder



Direct ocean deliveries

# Direct container line Shanghai - Gdansk

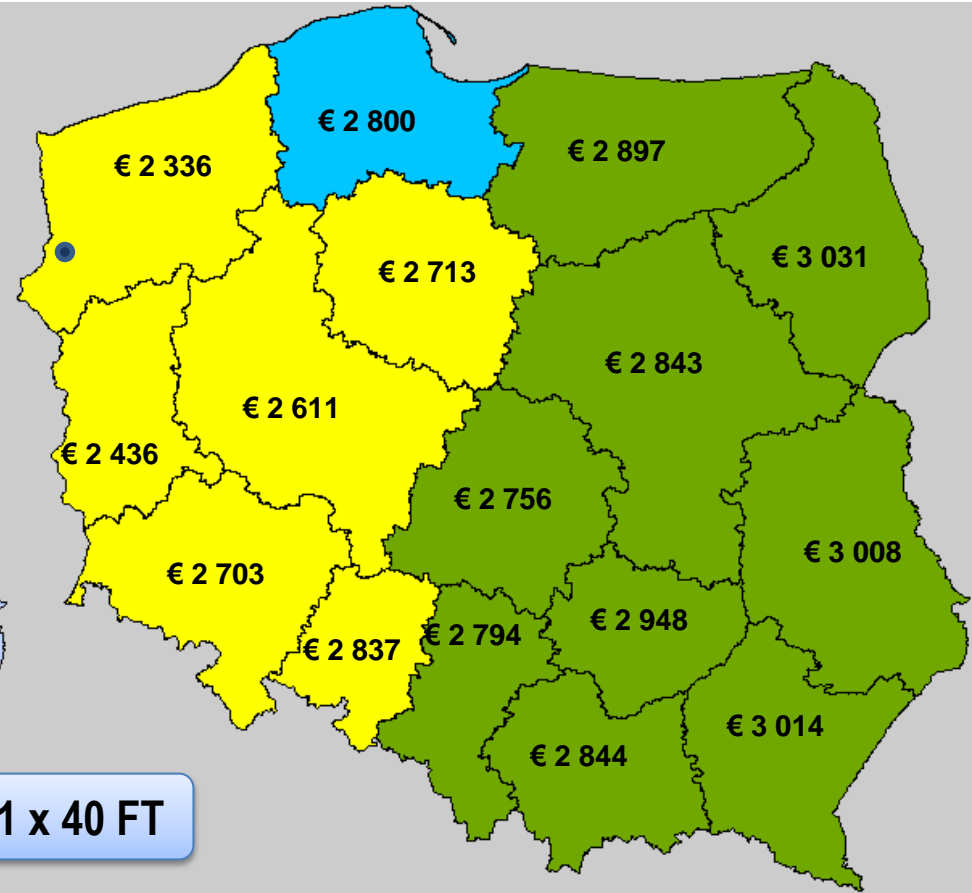
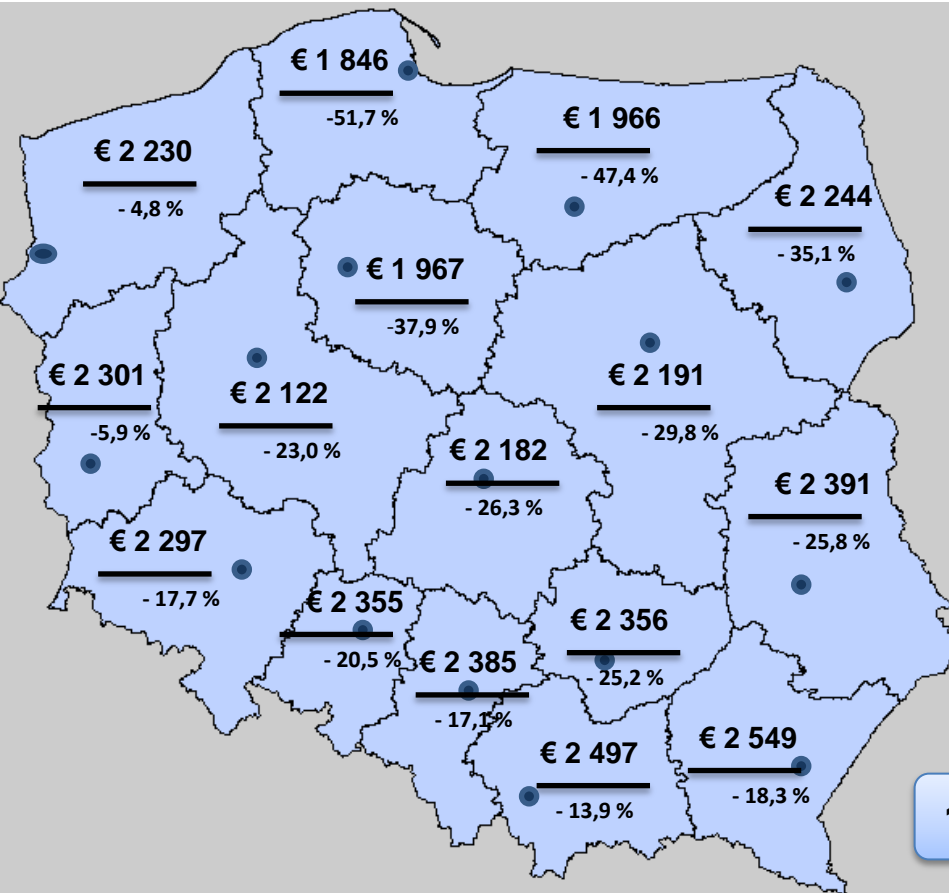


Source : DCT Gdansk S.A,

# FREIGHT RATES COMPARISONS – THE FIRST MODAL CHOICE

Route: Shanghai - Gdansk - Poland

Route: Shanghai - Hamburg - Poland



Road



Block train



Feeder

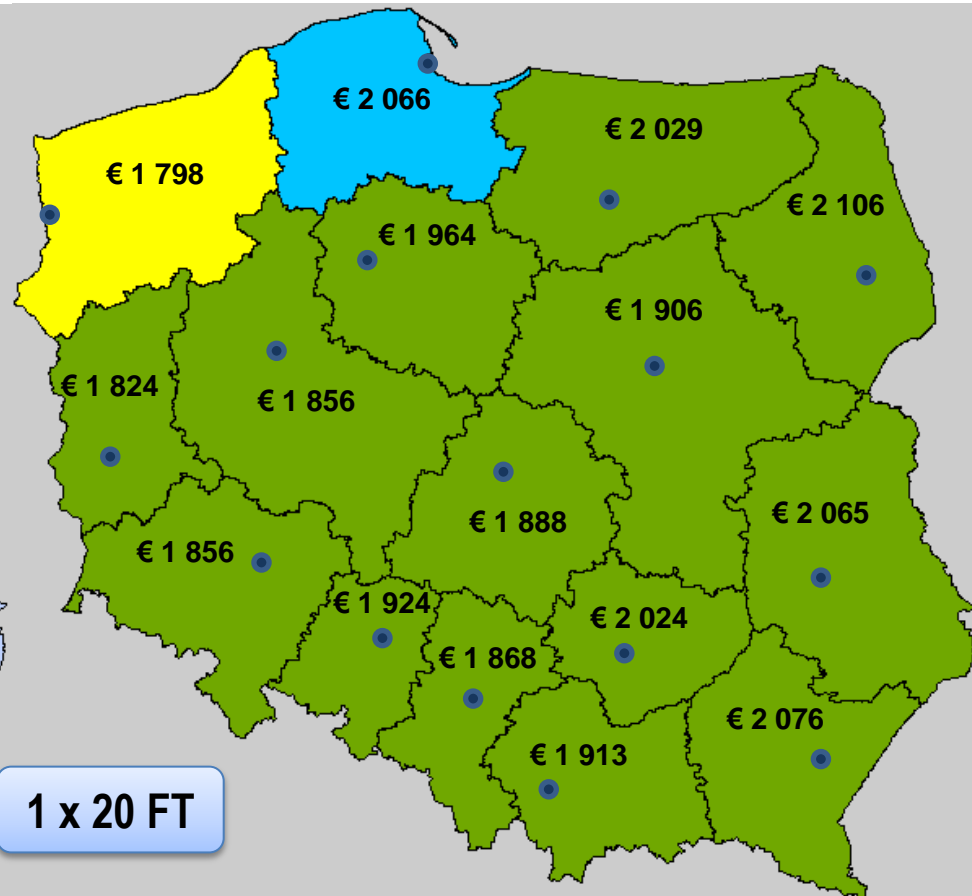
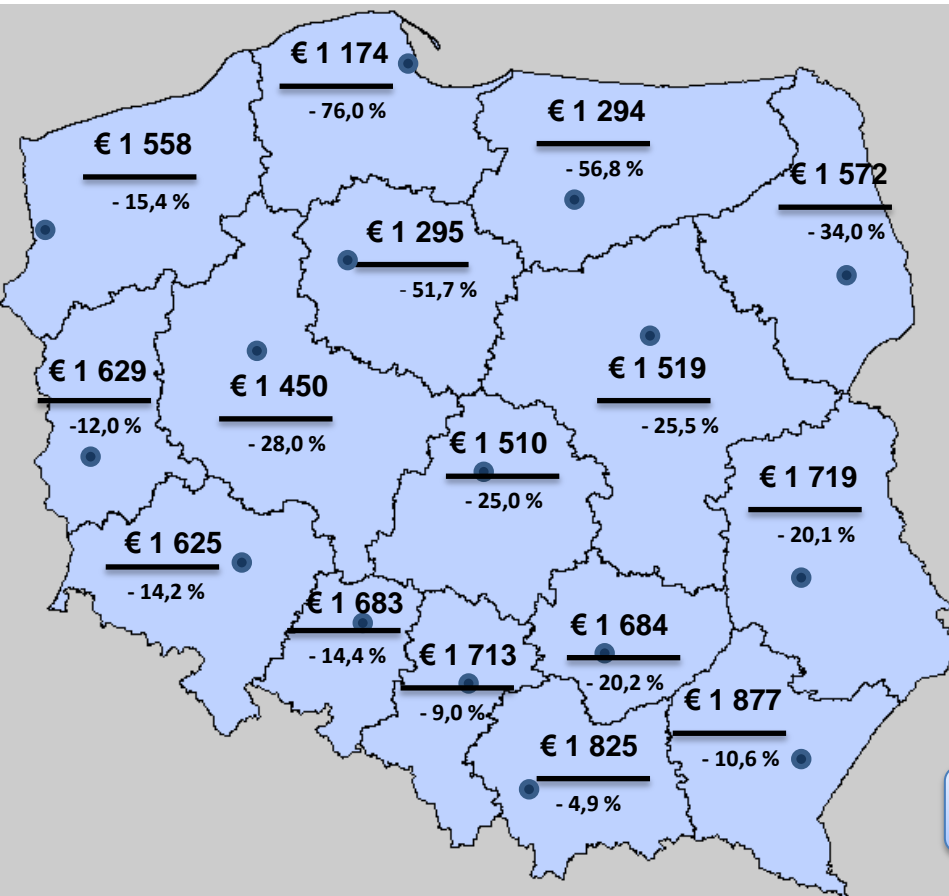


Direct ocean deliveries

# FREIGHT RATES COMPARISONS – THE FIRST MODAL CHOICE

Route: Shanghai - Gdansk - Poland

Route: Shanghai - Hamburg - Poland



Road



Block train



Feeder



Direct ocean deliveries

# Summary

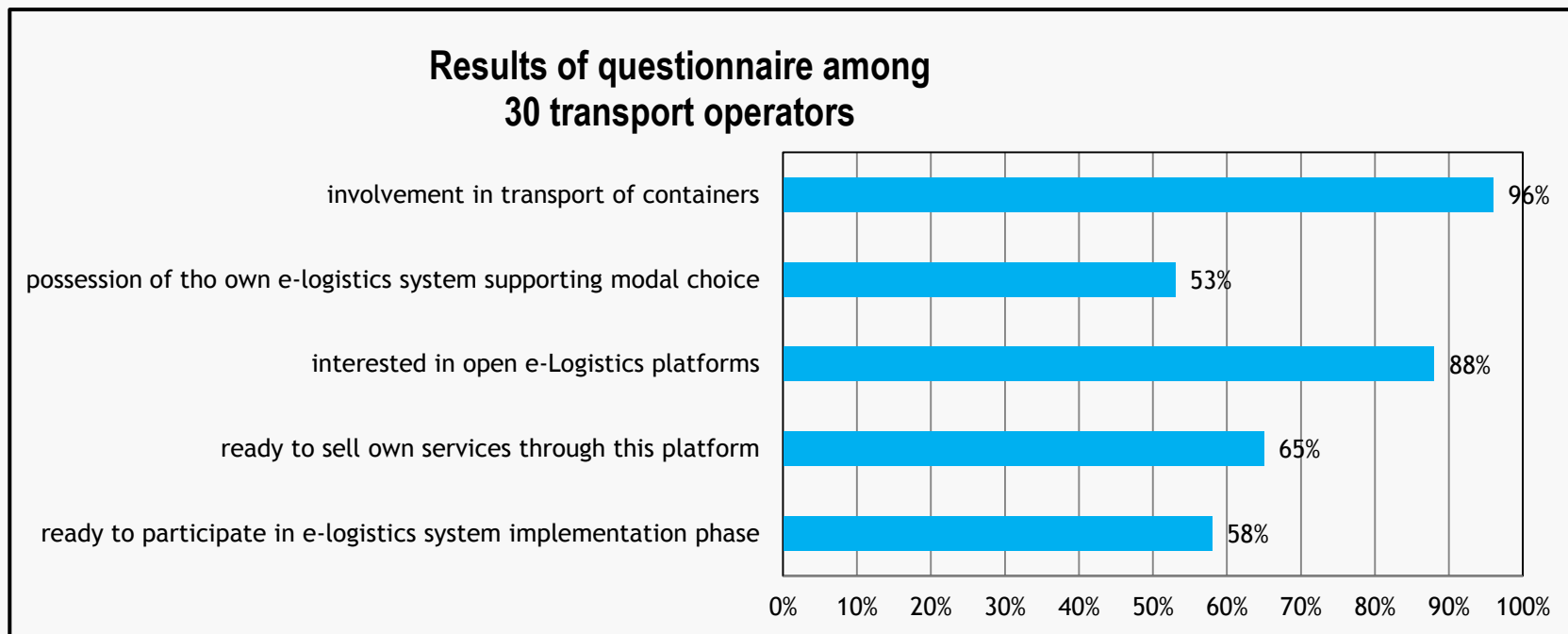
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## Works completed

- ❑ Basic data base of transport services in selected transport corridors:
  - Shanghai – Poland via ports of Rotterdam, Hamburg and Gdansk
  - Sweden/Norway - Poland
- ❑ Alternative modal comparison of transit times and transport expenses
- ❑ Demonstrations of ITC tool and potential benefits from different modal solutions
  - Poznan – June' 2010
  - Poznan - October '2010 (workshop of the FLAVIA project)
  - Warsaw – June'2011
  - Sopot – October 2011
  - Katowice – November 2011 (planned)

# Ongoing works – preparing implementation phase

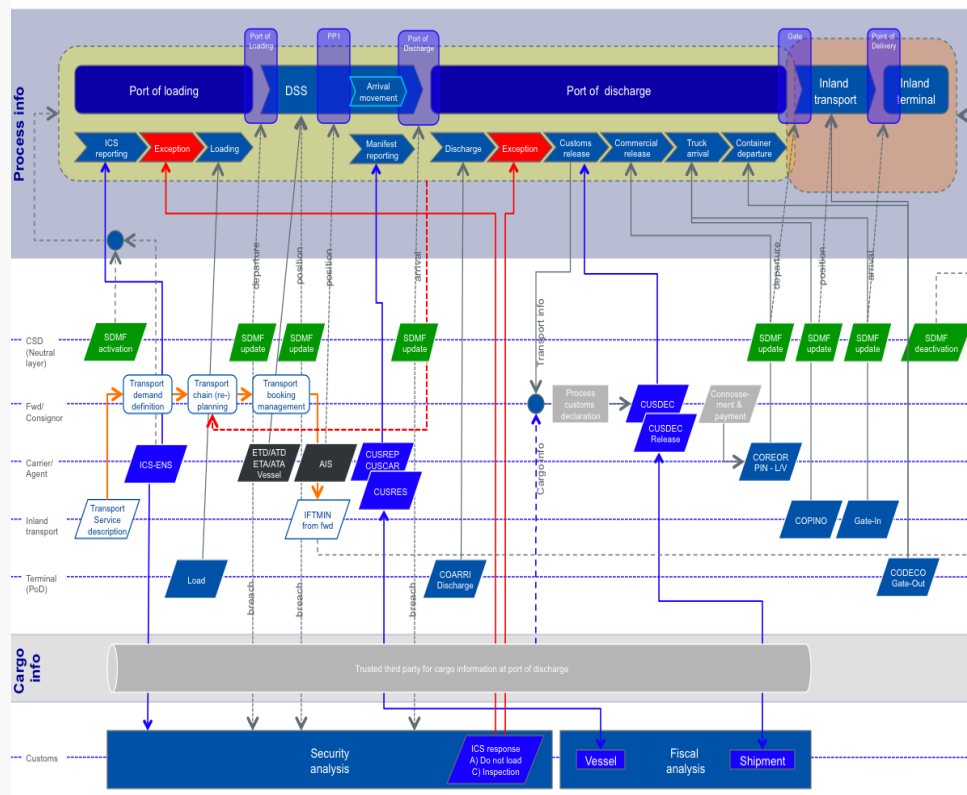
- ❑ Creating cluster of transport operators willing to sell their transport services through open Internet platform



# Ongoing works – preparing implementation phase



- ❑ Creating common language for exchanging electronic messages



- electronic data interchange communication standards
- form of electronic messages and documents
- standardized business models



**Thank you for your attention**

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