

# Freight Flows in Europe and their implications for EU Railway Policy

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TransportNET – 4th Research Seminar on Rail Policy  
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Network Economics (KIT-IWW)



**This presentation is based on the Article:**

*Kay Mitusch, Gernot Liedtke, Laurent Guihery, David Bälz:*  
The Structure of Freight Flows in Europe and its implications  
for EU Railway Freight Policy

In: Man, Environment, Space and Time – Economic  
Interactions in Four Dimensions

Edited by Prof. em. Dr. Dr. h.c. Rolf Funck and Prof. em. Dr.  
Werner Rothengatter, Nomos, 2014

Also as ECON Working Paper KITe\_WP\_61

# Agenda

**1. Freight Flows in Europe**

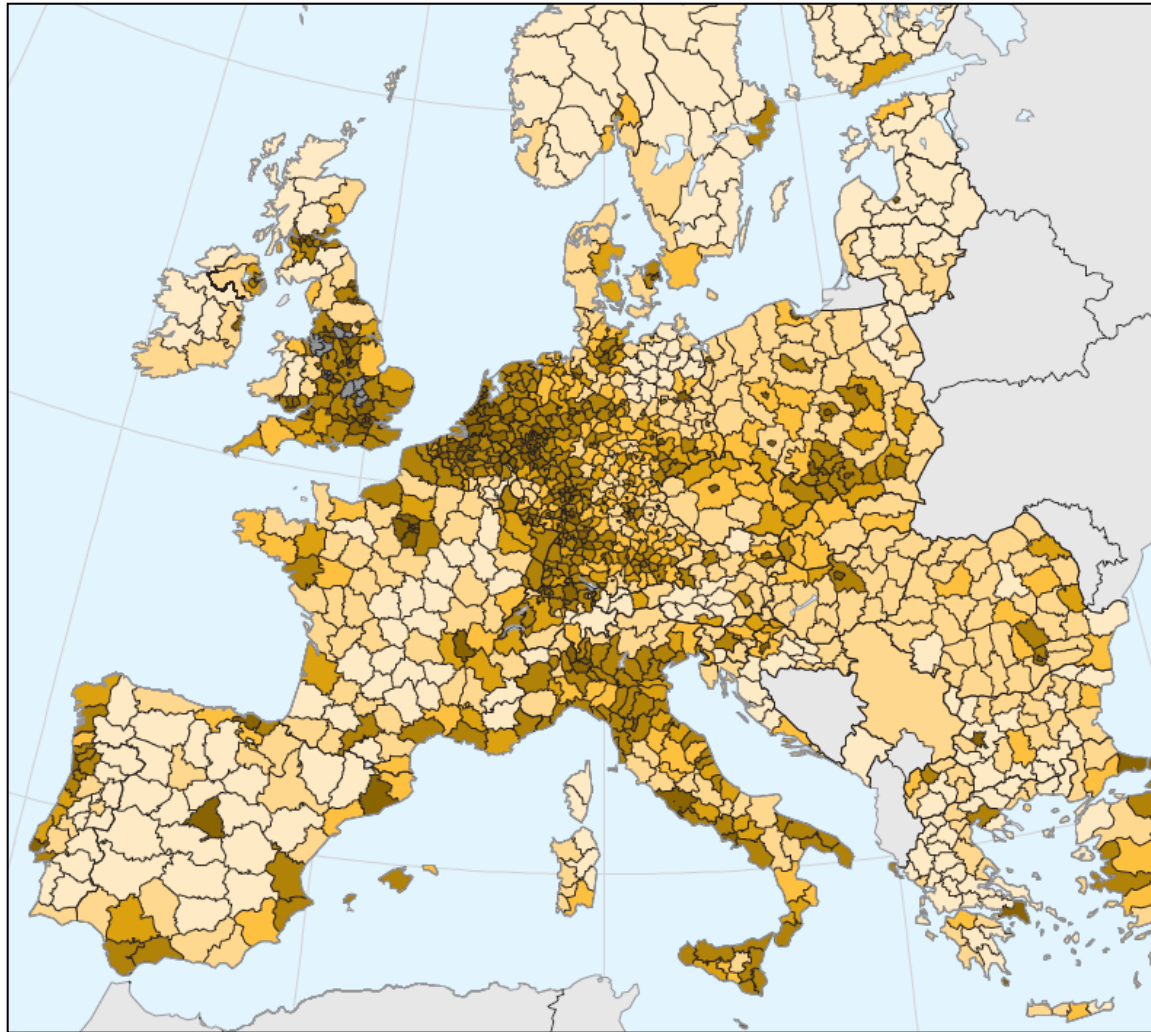
**2. and their implications for EU Railway Policy**

# Agenda

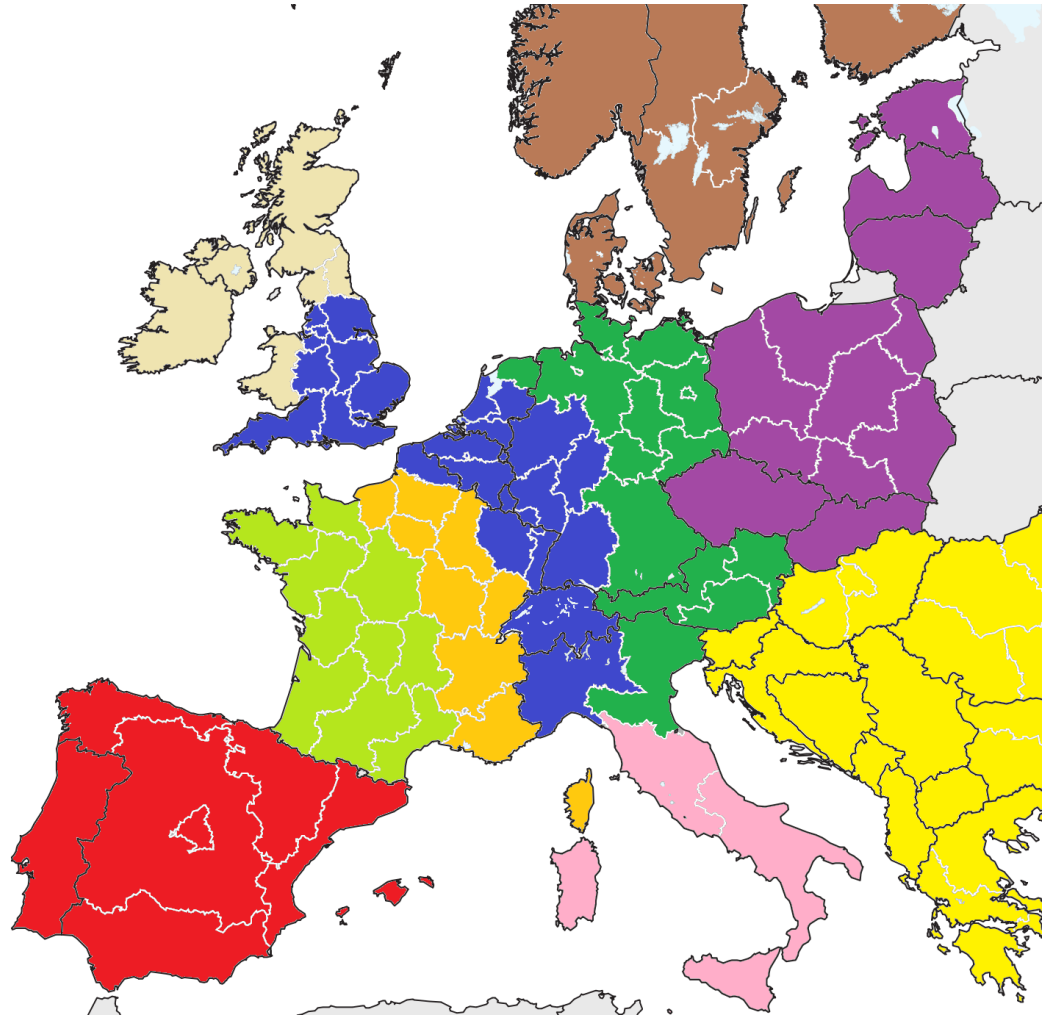
## 1. Freight Flows in Europe

## 2. and their implications for EU Railway Policy

# Europe: Population Density



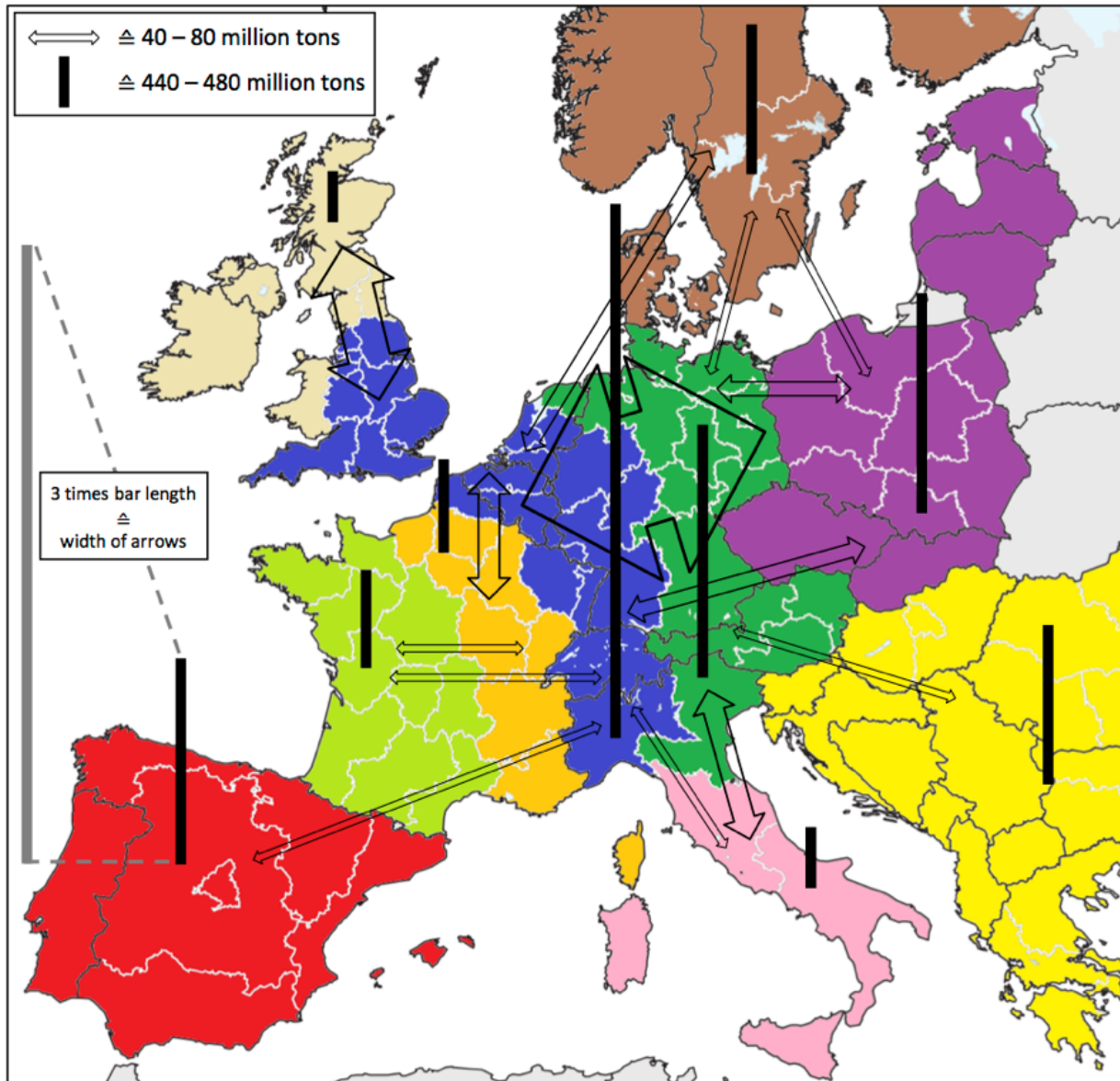
# Europe: 10 Regions



# Freight Flows in and between the 10 Regions

- Freight flow data from ETISplus for 2010
- Type of data: Modelled data for O/D relations between 2321 geographical cells
- Aggregated over:
  - All types of goods shipped
  - All modes (Road, Rail, Inland Water Ways, Sea)
  - Between regions: Flows of opposite directions are summed up

# Freight Flows between the 10 Regions

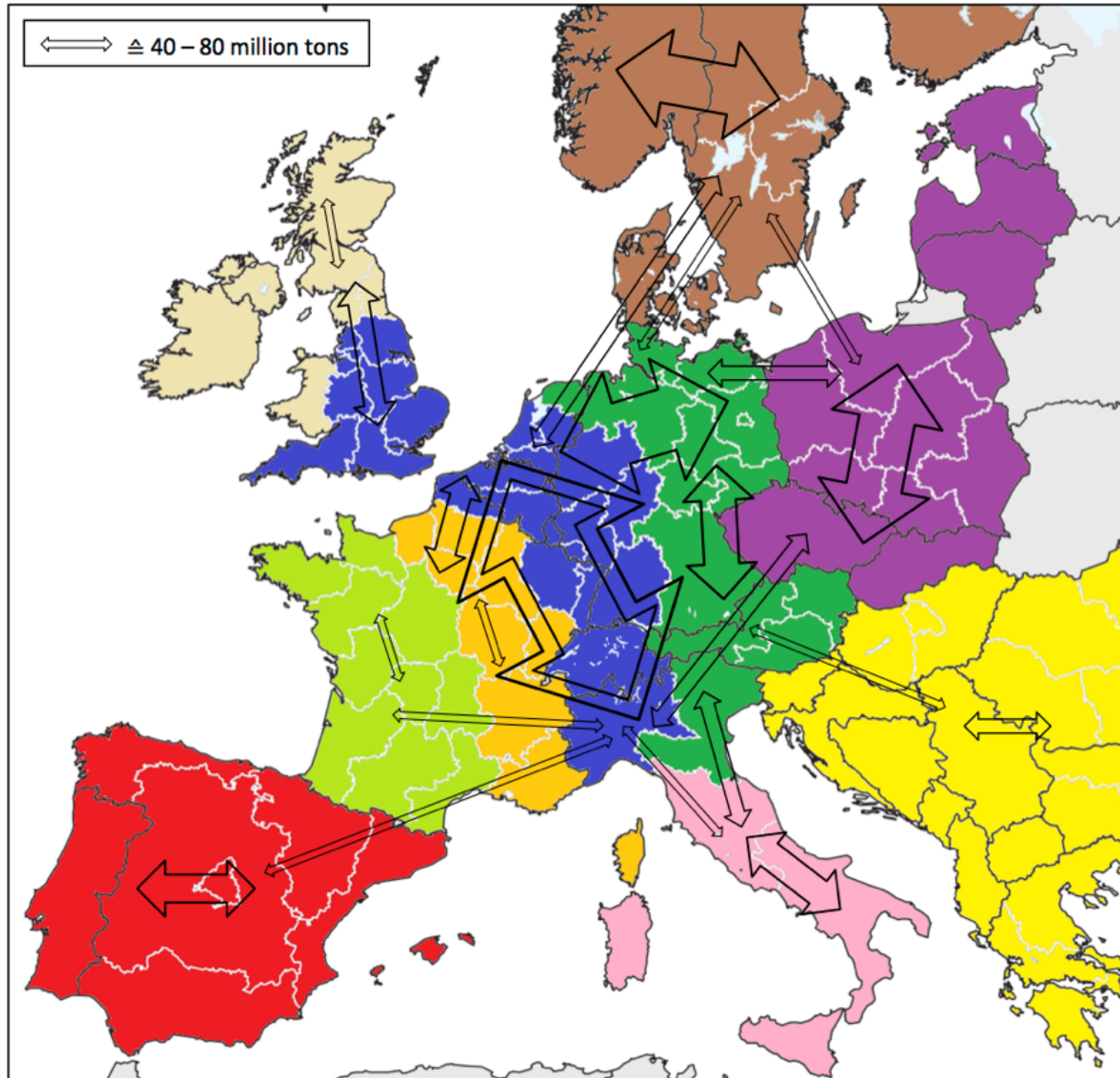




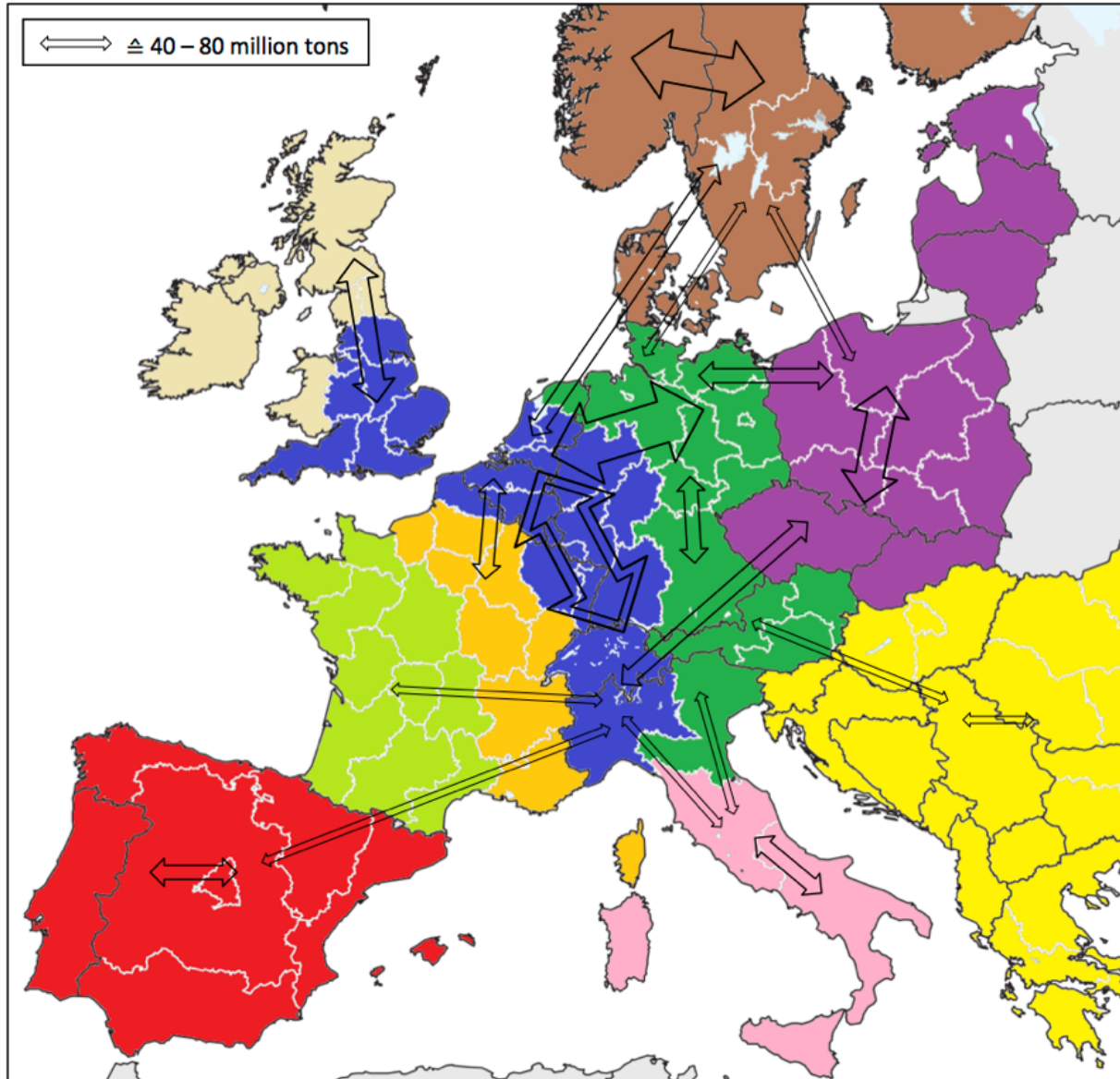
# Railway freight

- **Basic hypothesis: Railways have a comparative advantage over road on the long distances**
- For usual container transport: Railways start becoming relevant for transports of more than **200 km** distance
- ... are even more relevant for more than **300 or 400 km** distance
- Western European states are relatively small compared to these distances
- **Hence railways seem to be relevant for international transports, e.g. EU wide**

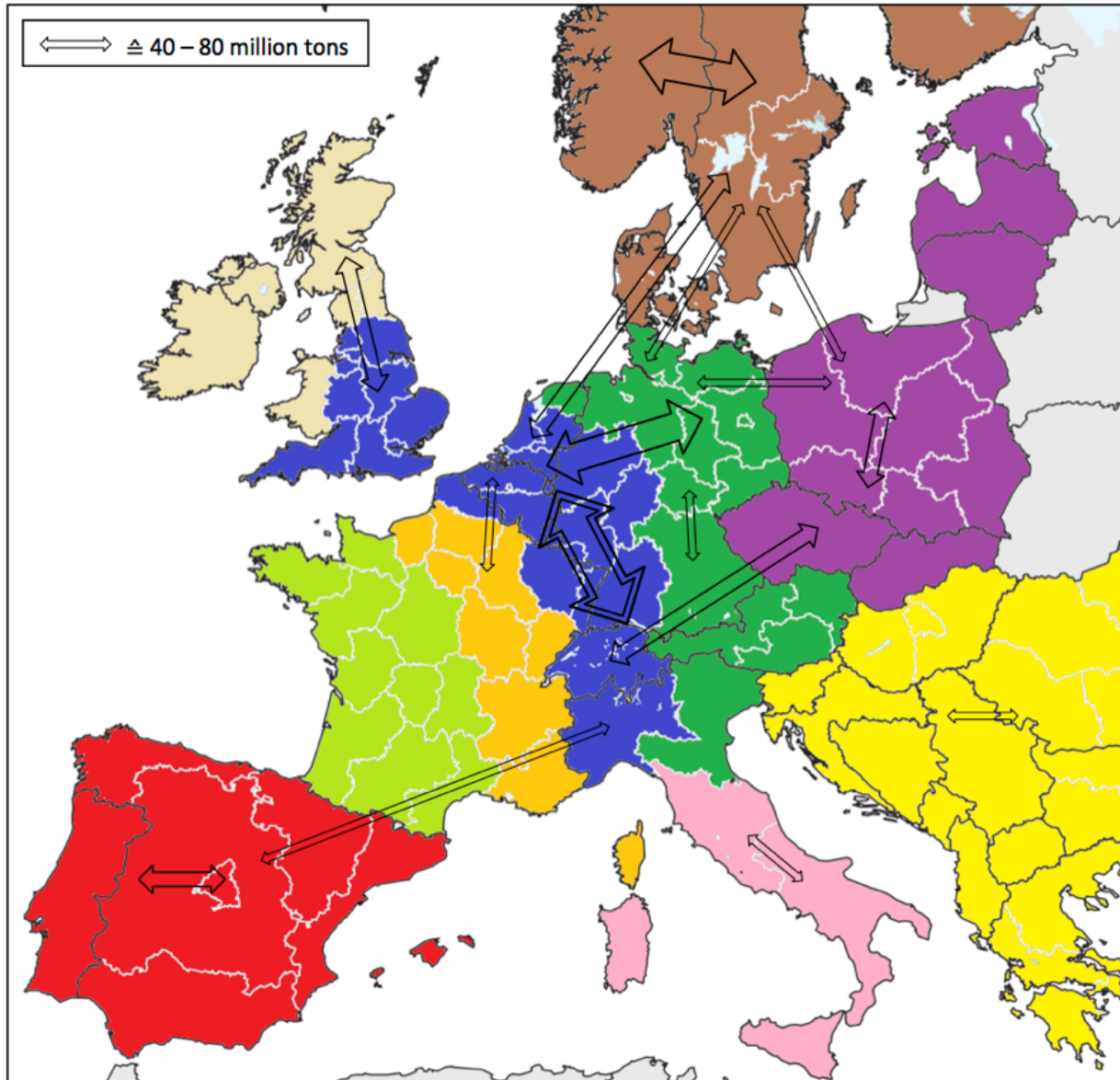
# Freight Flows of more than 200 km distance



# Freight Flows of more than 300 km distance



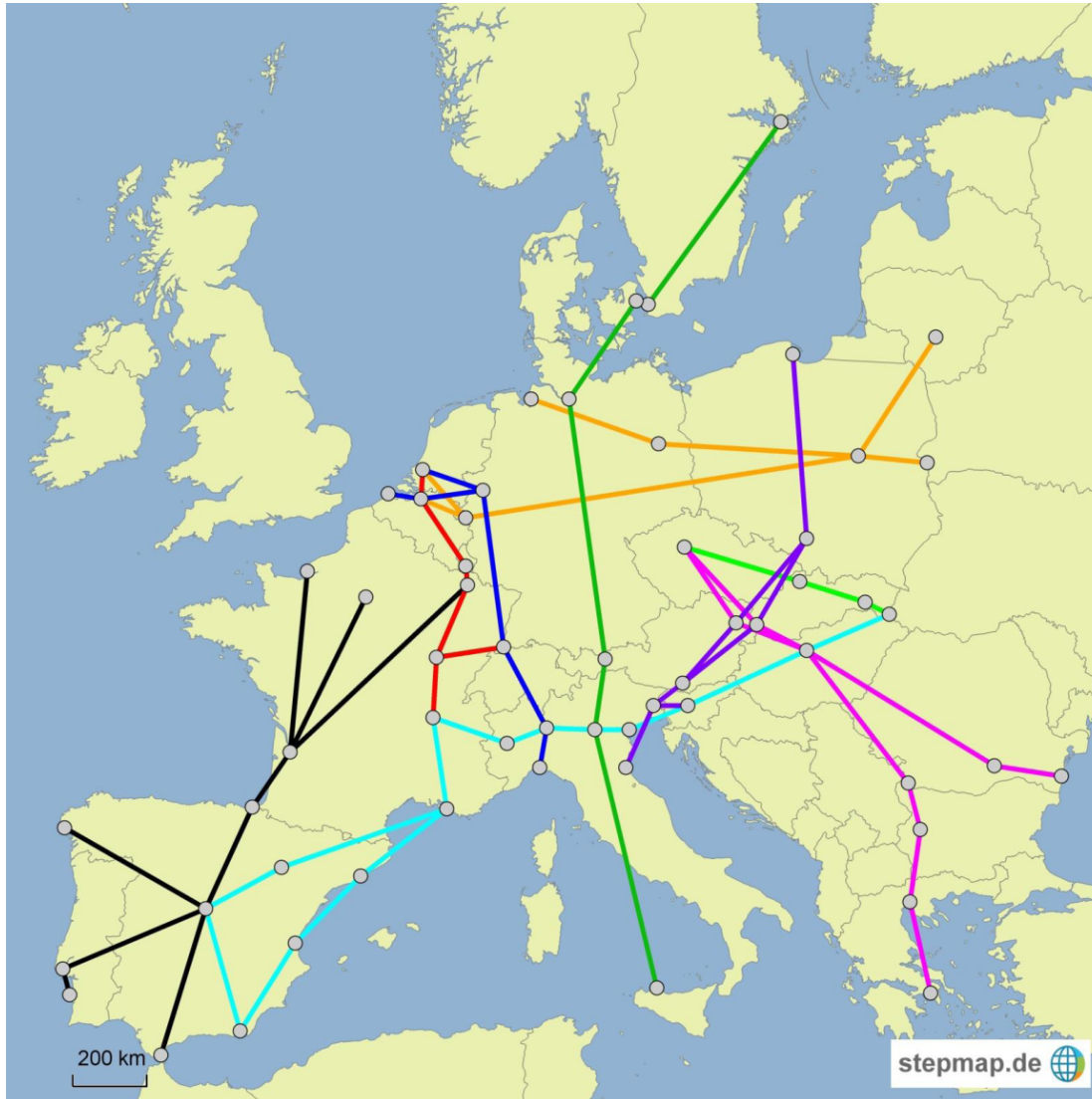
# Freight Flows of more than 400 km distance



## Summary:

- **Major long-distance freight flows in the EU take place:**
  - within the Blue Banana
  - and between the BB and ist Eastern (and Western) adjacency
- The repective Corridors # 1, 2, and 3, and maybe one central East-West corridor, are the true EU railway corridors: **„central corridors“**
- All other corridors have the purpose to integrate regions which are yet not or to develop traffic for the railways.

# EU Railway Corridors (idealized depiction) according to Regulation 913/10 EU




# Agenda

## 1. Freight Flows in Europe

## 2. and their implications for EU Railway Policy

# EU Railway Policy

- 
- **Central corridors:  
Upgrade for the future!**
  - **Other corridors:  
Upgrade for basic functionality**



# EU Railway Policy for the central corridors

- Remove bottlenecks of infrastructure capacity
- Fight railway freight noise
- **Overcome technological backwardation:**  
100 year old technology of hand couplings, bogies and block brakes

## Recommendations for EU rail freight policy

- EU should define **two distinct standards** for railway freight (not interchangeable):
  - Basic
  - Advanced
- Each corridor administration (led by the countries involved) should decide whether it wants to upgrade to „advanced“ or not
- Many countries and corridors are fine with the basic standard

# Thanks for listening!



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