

Analysis of Seaport hinterland traffic (IWT and Rail) and market shares of ARA and German seaports in German federal states, Austria and Switzerland

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Introduction : River Rhine and main seaports



I Main European sea ports and River Rhine



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Data sources and objects of investigation



I Regionalized official data

- The German Statistical Office (Destatis) publishes annual statistical reports about Railway traffic and Inland waterway traffic
- Within these reports, the following tables about **seaport hinterland traffic** are found:
 - Export of goods from **regions / countries** to main seaports
 - Import of goods to **regions / countries** from main seaports
- **Definition Regions** = all 16 federal German states
- **Definition Countries** = Countries that receive or send goods from / to seaports via German territory (e.g. Switzerland, Austria, Czech Republic, Slovakia, Hungary, etc.)
- The quantitative analysis was done for the **16 German states, Austria and Switzerland**



Object of investigation: Germany, Austria and Switzerland



AUT = Austria

CH = Switzerland

BY = Bavaria

BW = Baden-Wuerttemberg

HE = Hessen

RP = Rhineland-Palatinate

SAA = Saarland

NRW = North-Rhine-Westphalia

TH = Thuringia

SA = Saxony

BRA = Brandenburg

BER = Berlin

SAC = Saxony-Anhalt

MWP = Mecklenburg-Western
Pomerania

LS = Lower Saxony

BRE = Bremen

HH = Hamburg

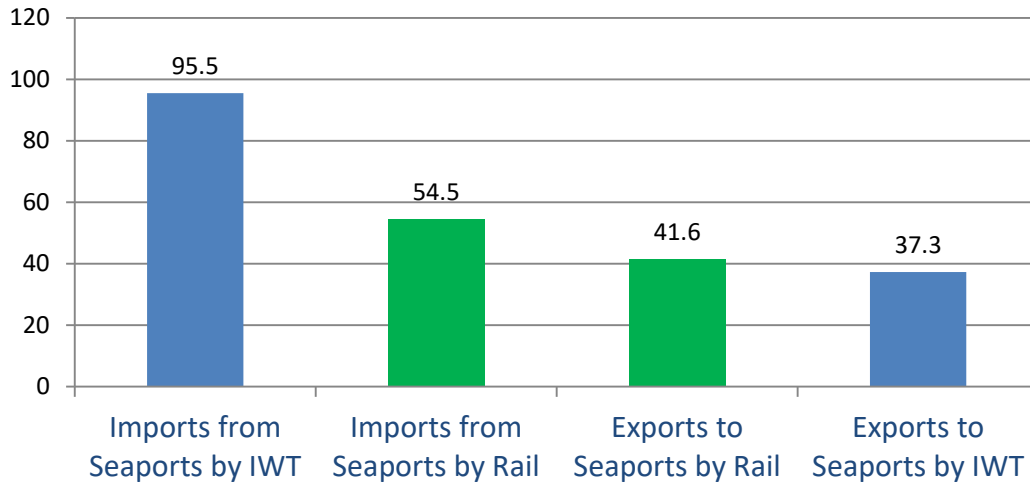
SH = Schleswig-Holstein

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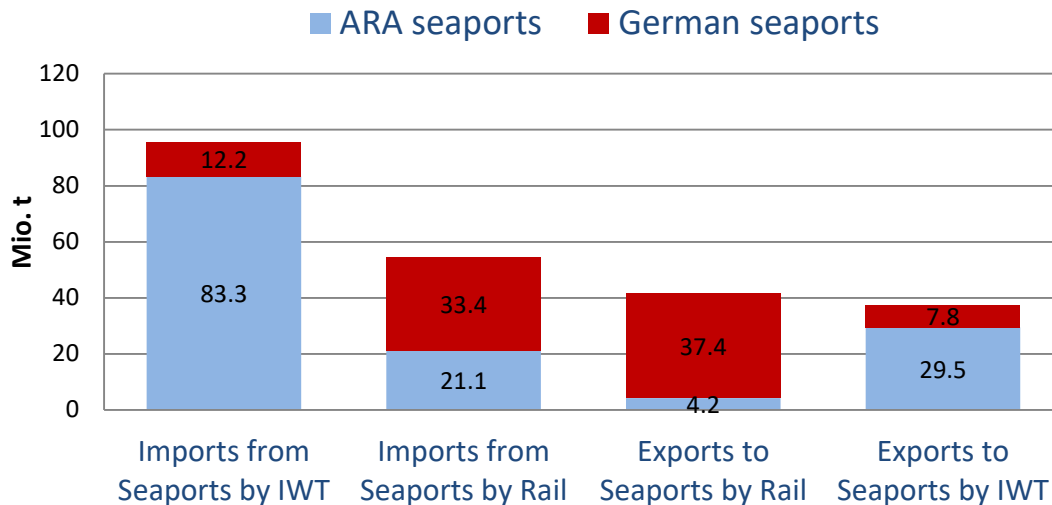
Overall results



Seaports' hinterland traffic by Rail and IWT for GER, AUT, CH



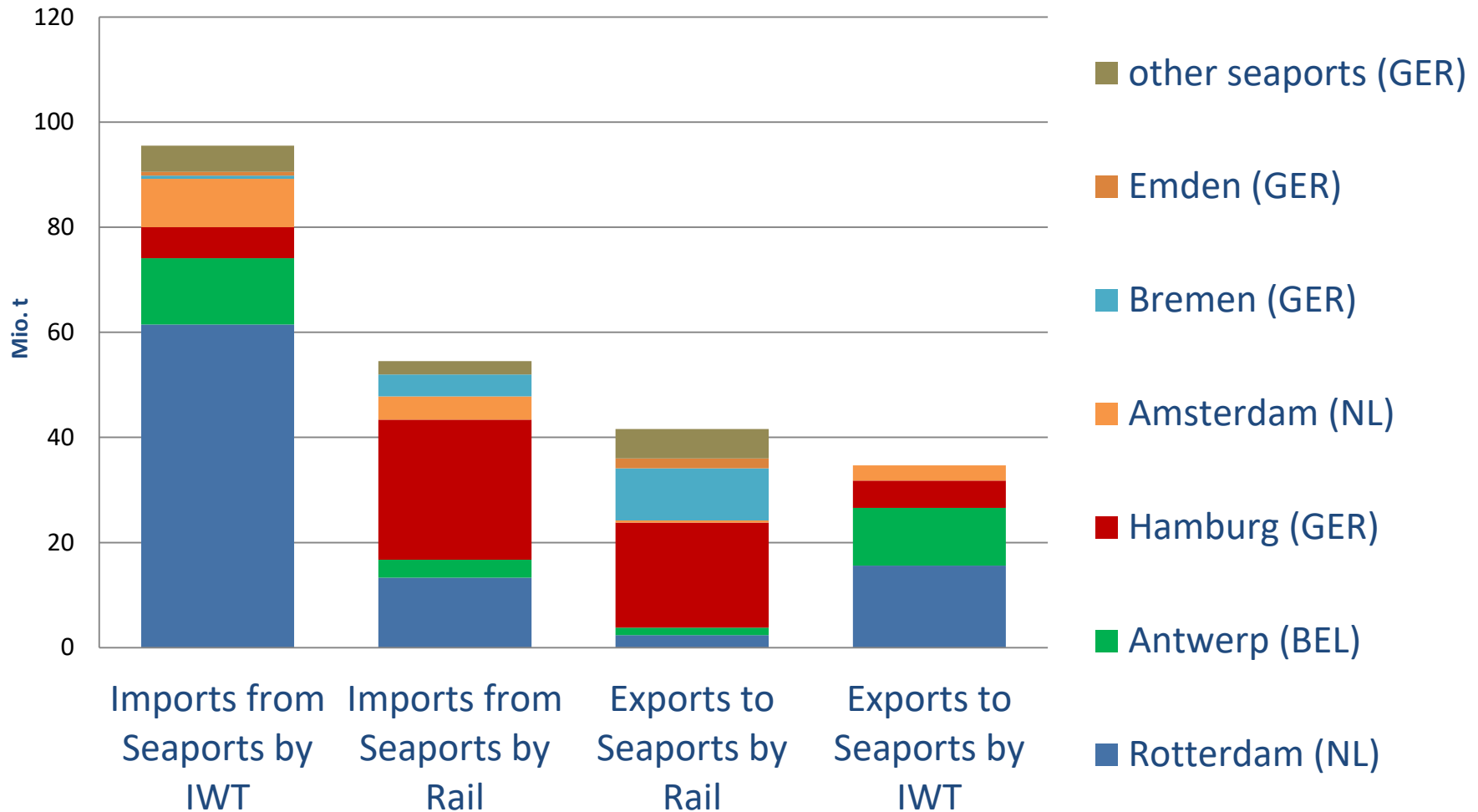
- Import figures (IWT + Rail) are in general higher
- Large volumes of mass cargo imports from seaports by IWT (iron ore, coal, etc.)



- ARA seaports have a high affinity to IWT
- German seaports have a higher affinity to rail transport



Seaports' hinterland traffic for Germany, Austria and Switzerland – traffic volume per port (in Mio. t)





2/3 of Seaport Hinterland Traffic related to Rotterdam (41%) and Hamburg (25%)

Share ARA ports

- 60 % overall
- 70 % of total import traffic (IWT + Rail)
- 43 % of total export traffic (IWT + Rail)
- 85 % of total IWT traffic
- 26 % of total rail traffic

Share port of Rotterdam

- 40 % overall
- 50 % of total import traffic (IWT + Rail)
- 23 % of total export traffic (IWT + Rail)
- 58 % of total IWT traffic
- 16 % of total Rail traffic

Share German seaports

- 40 % overall
- 30 % of total import traffic (IWT + Rail)
- 57 % of total export traffic (IWT + Rail)
- 15 % of total IWT traffic
- 74 % of total rail traffic

Share port of Hamburg

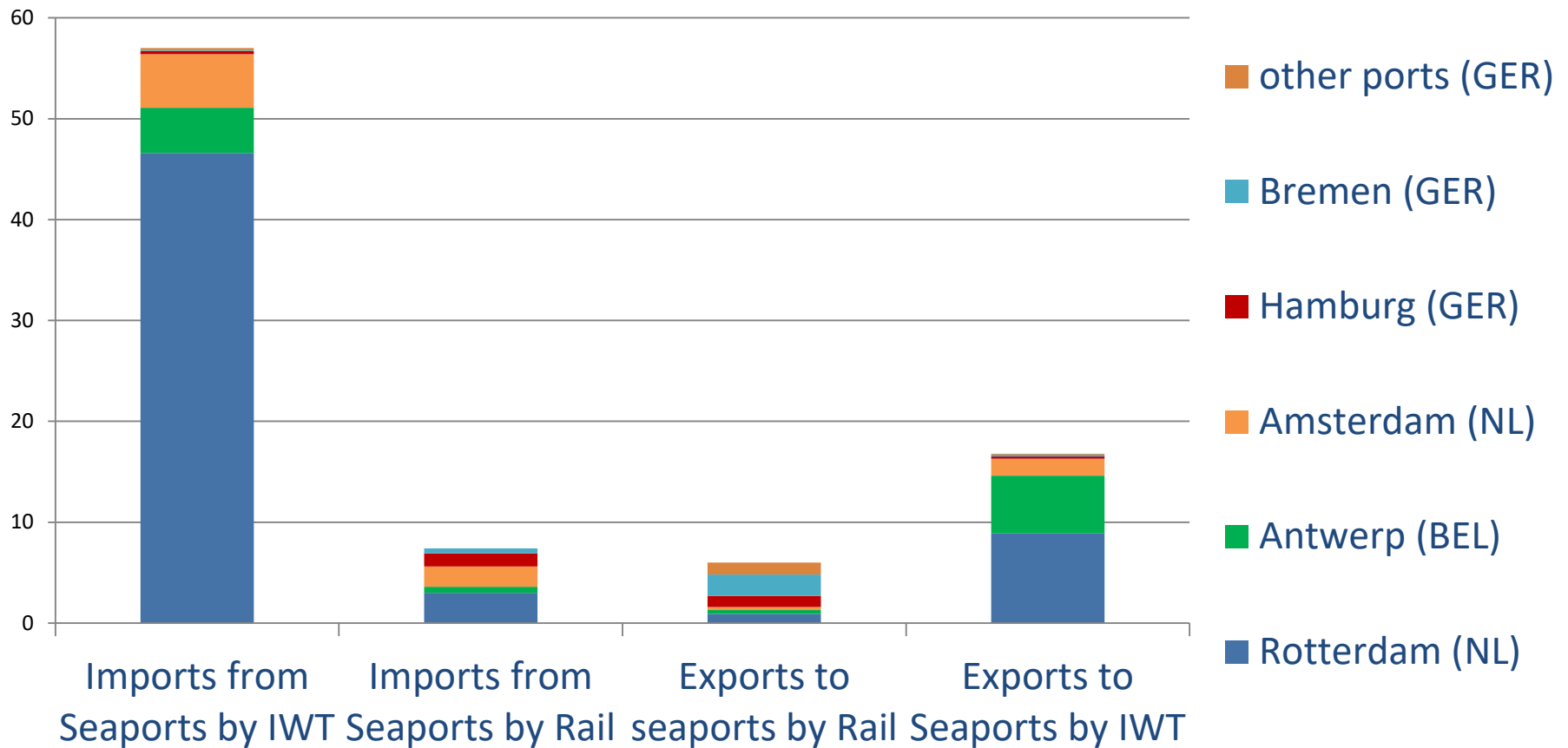
- 25 % overall
- 22 % of total import traffic (IWT + Rail)
- 32 % of total export traffic (IWT + Rail)
- 8 % of total IWT traffic
- 49 % of total rail traffic

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Results from a regional perspective



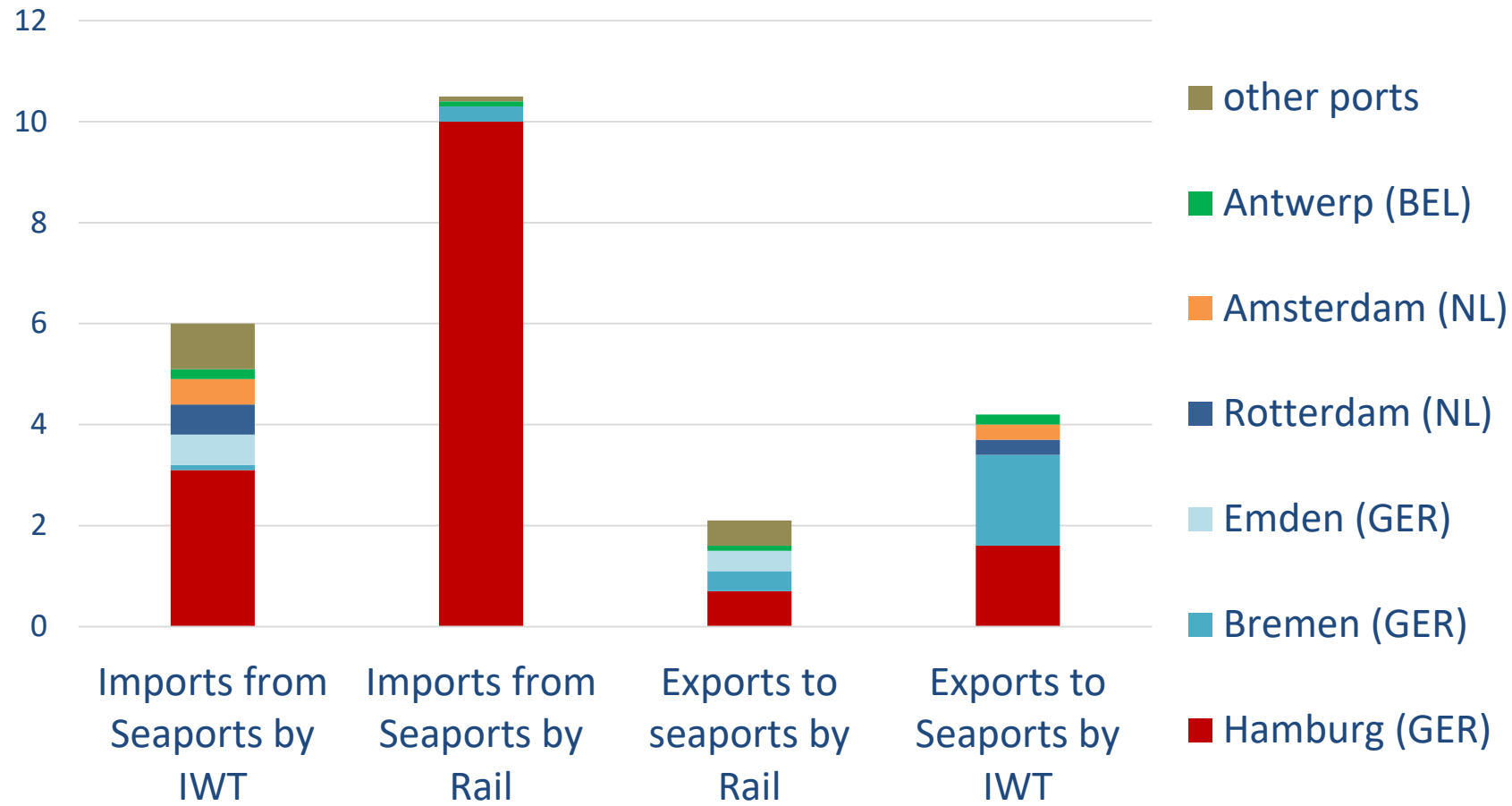
IWT share is 85 % in the largest federal state of Germany – North-Rhine-Westphalia





IWT share is 45 % in the largest Northern federal state of Germany

Lower Saxony

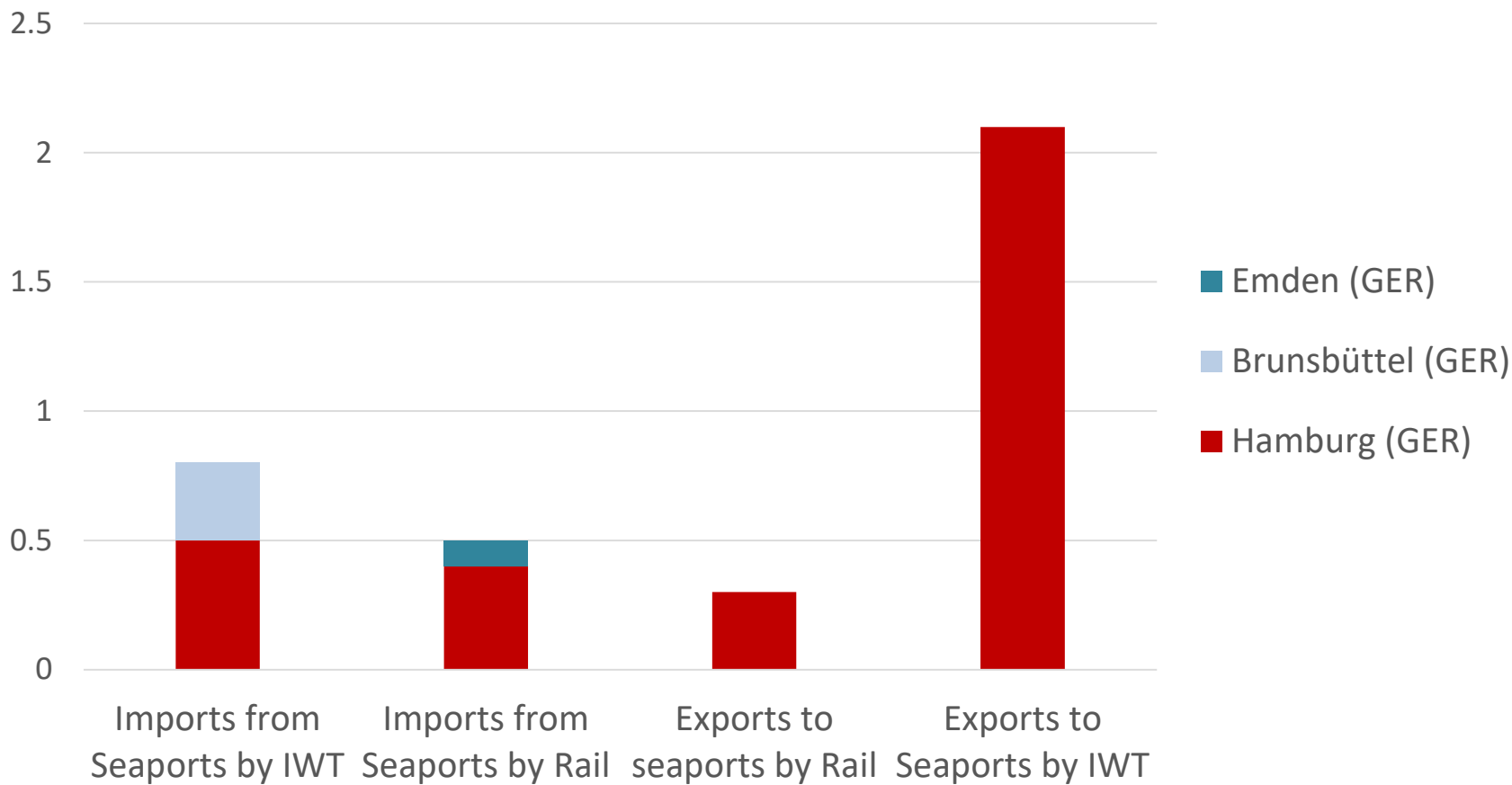


Source: Destatis, calculation CCNR



IWT share is 78 % in the most northern federal state of Germany –

Schleswig-Holstein

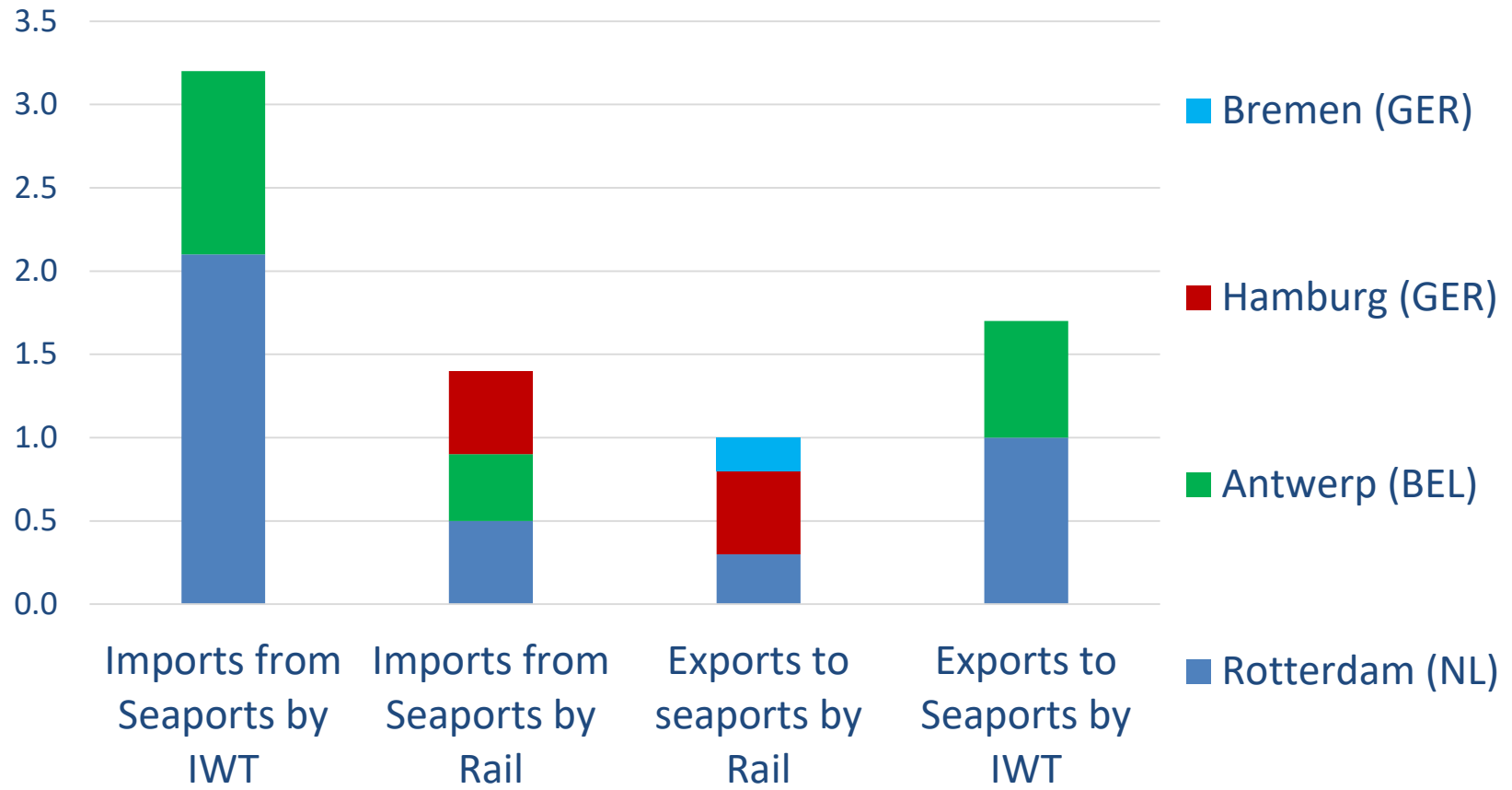


Source: Destatis, calculation CCNR



IWT share is 67 % in Switzerland

Switzerland

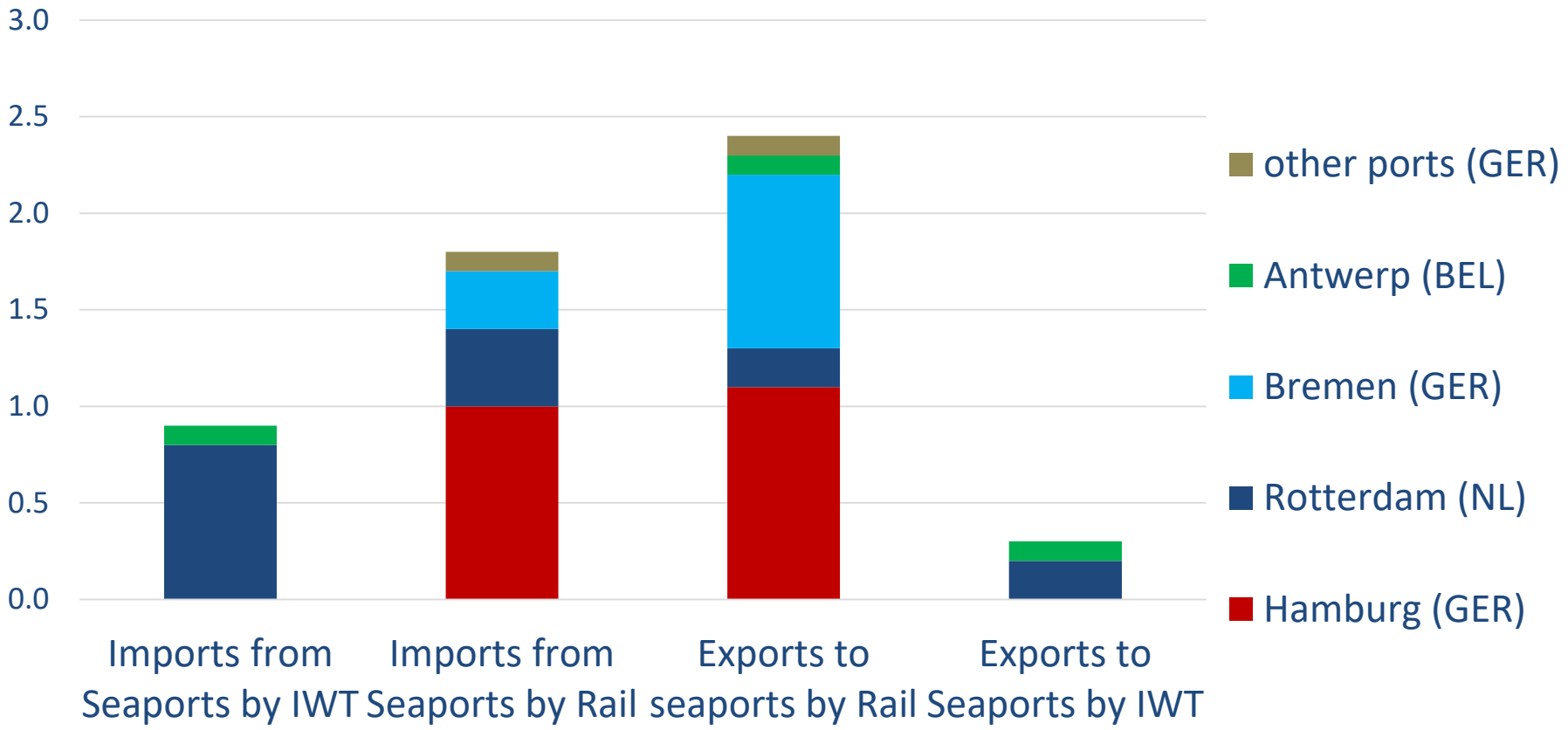


Source: Destatis, calculation CCNR



IWT share is 22 % in Austria

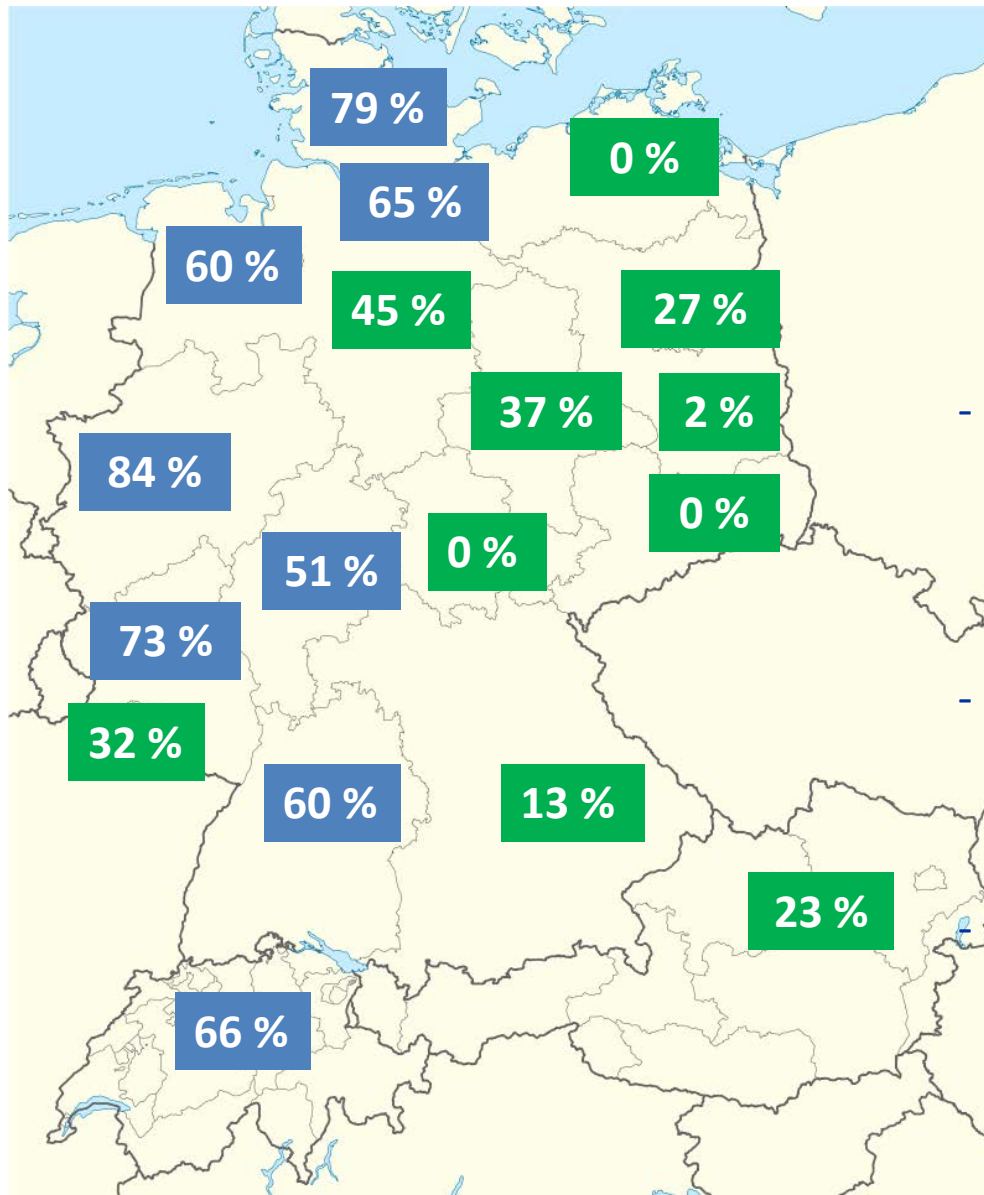
Austria





Source: Destatis, calculation CCNR



Germany, Austria and Switzerland – IWT shares hinterland (%)



 = Majority of IWT, share of IWT
 = Majority of Rail, share of IWT

- Hinterland traffic by IWT is in particular important in western and northern parts of Germany and in Switzerland
- IWT share gets smaller, the farther to the east and the south-east a state is located.
- Exception: Austria, with a rather high IWT share, although it is the most south-eastern entity within this study

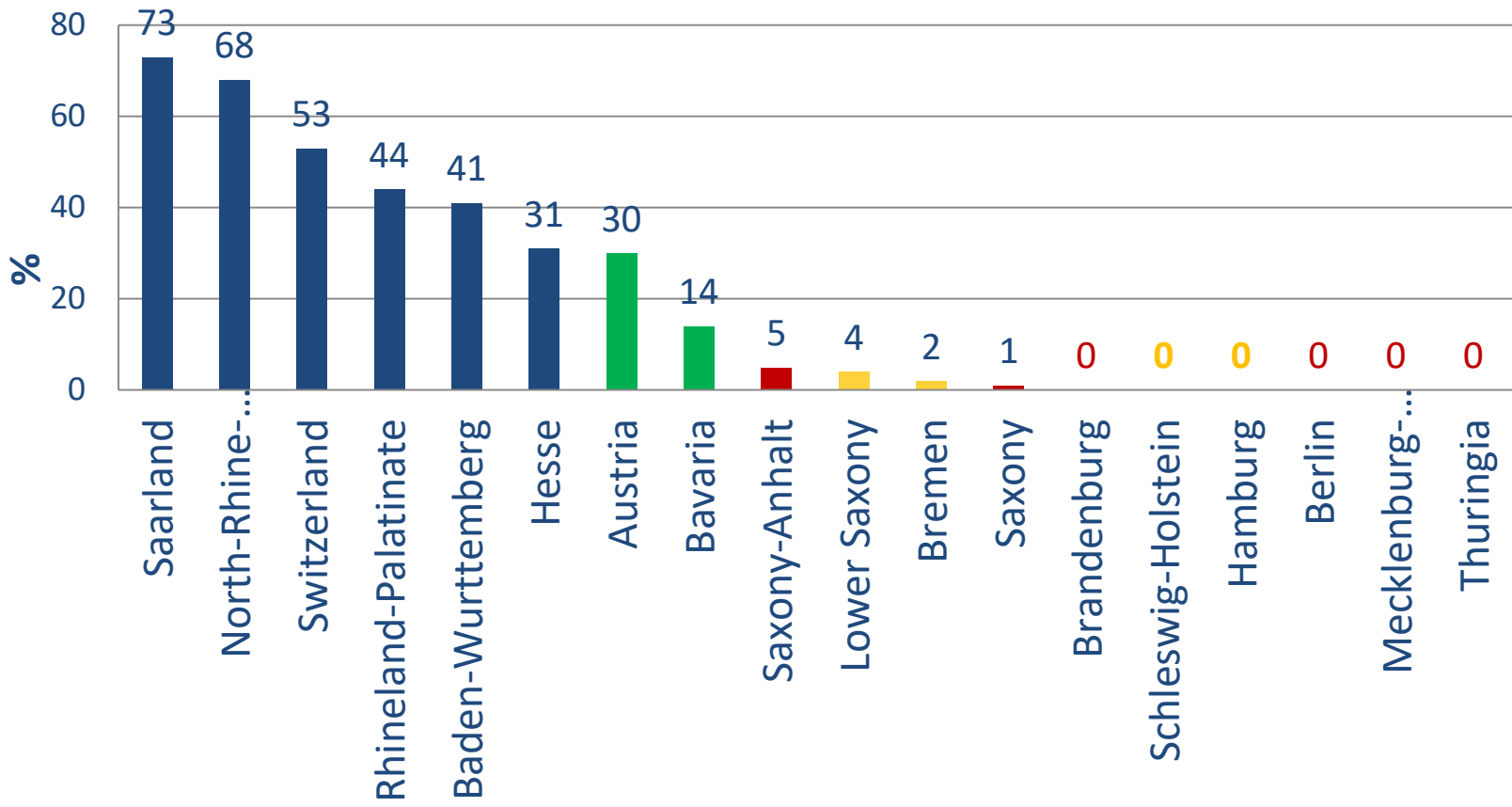
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Market shares of seaports in hinterland traffic



Share of port of Rotterdam in total hinterland traffic per region (%)

Blue = Western Germany, Switzerland
Green = Bavaria, Austria
Yellow = Northern Germany
Red = Eastern Germany

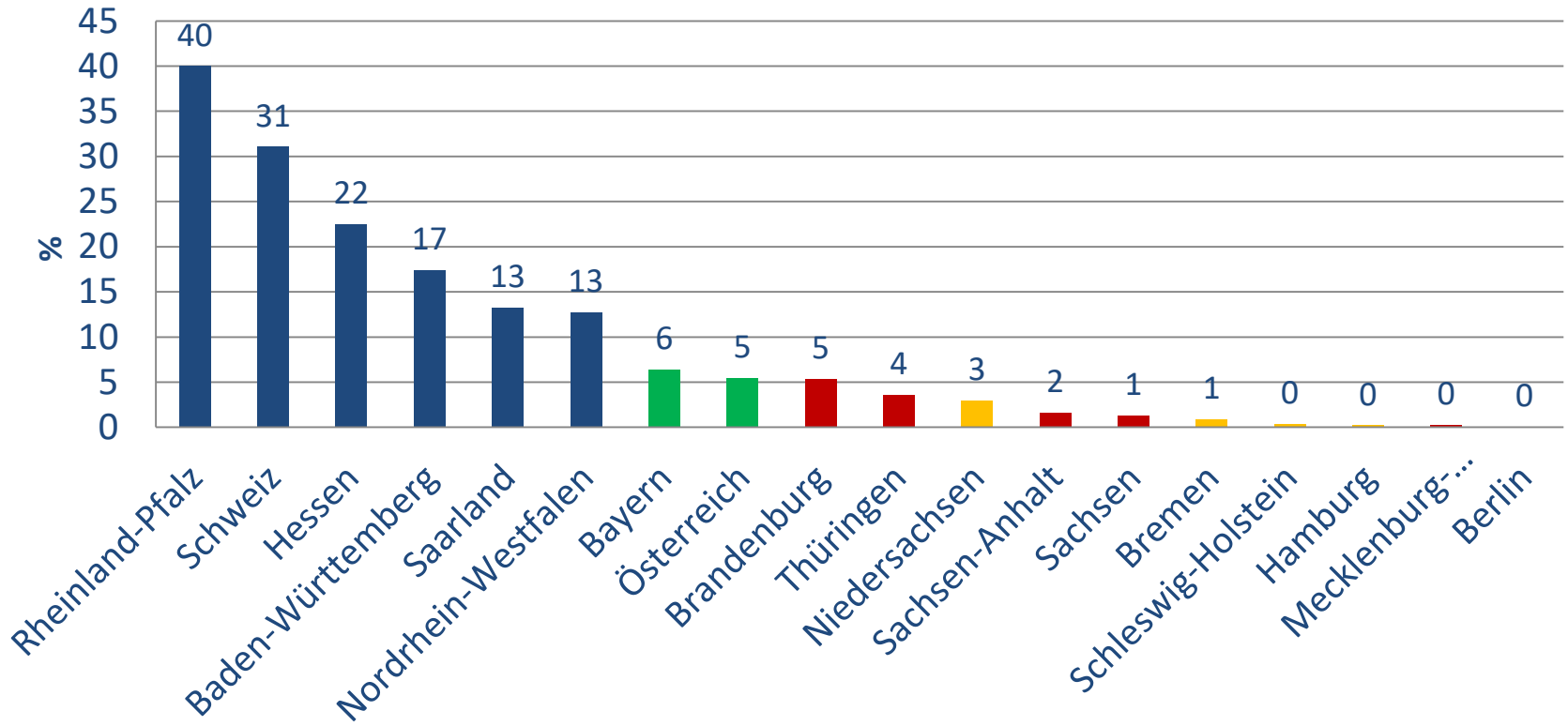


Source: Destatis, calculation CCNR



Share of port of Antwerp in total hinterland traffic per region (%)

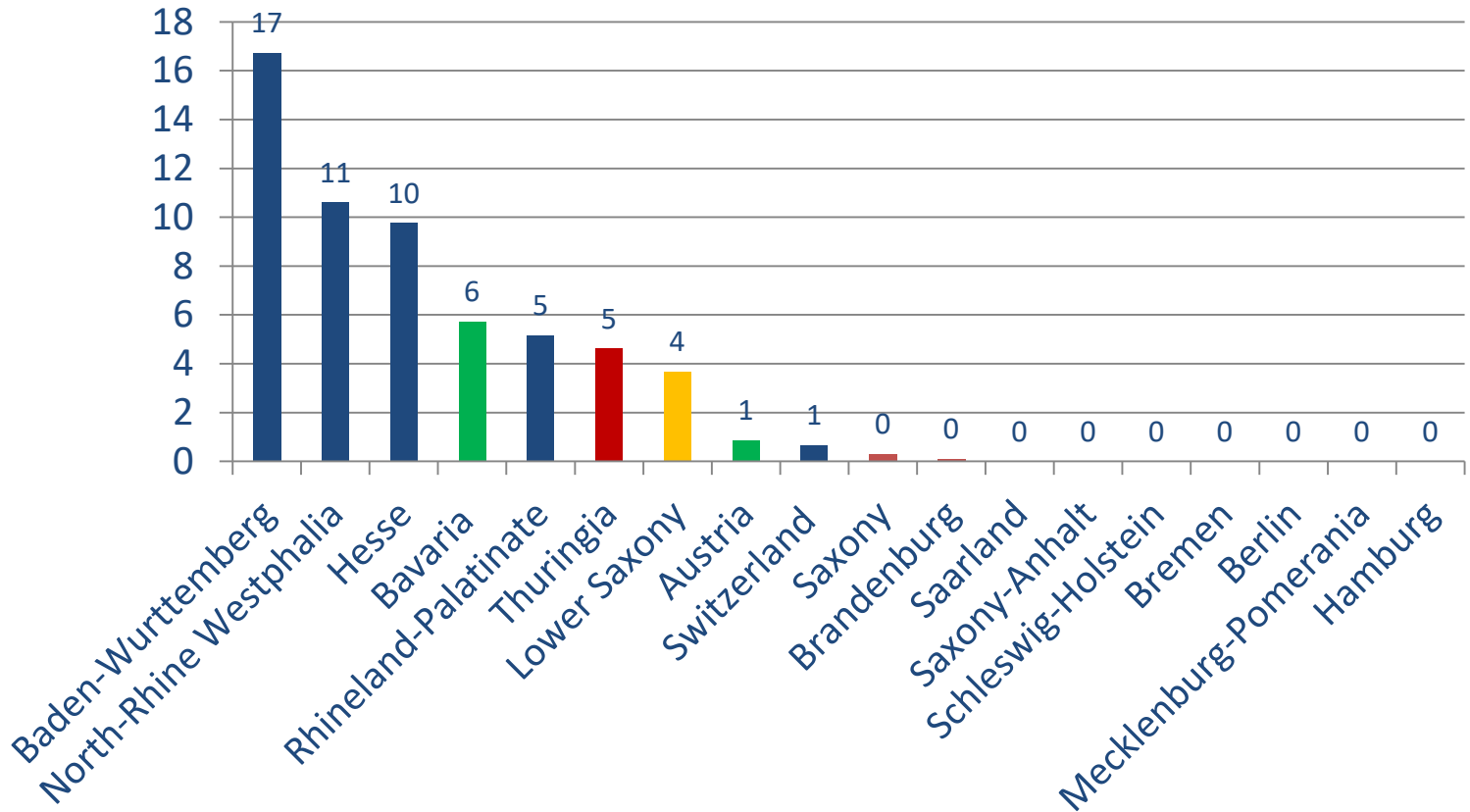
Blue = Western Germany, Switzerland
Green = Bavaria, Austria
Yellow = Northern Germany
Red = Eastern Germany





Share of port of Amsterdam in total hinterland traffic per region (%)

Blue = Western Germany, Switzerland
Green = Bavaria, Austria
Yellow = Northern Germany
Red = Eastern Germany

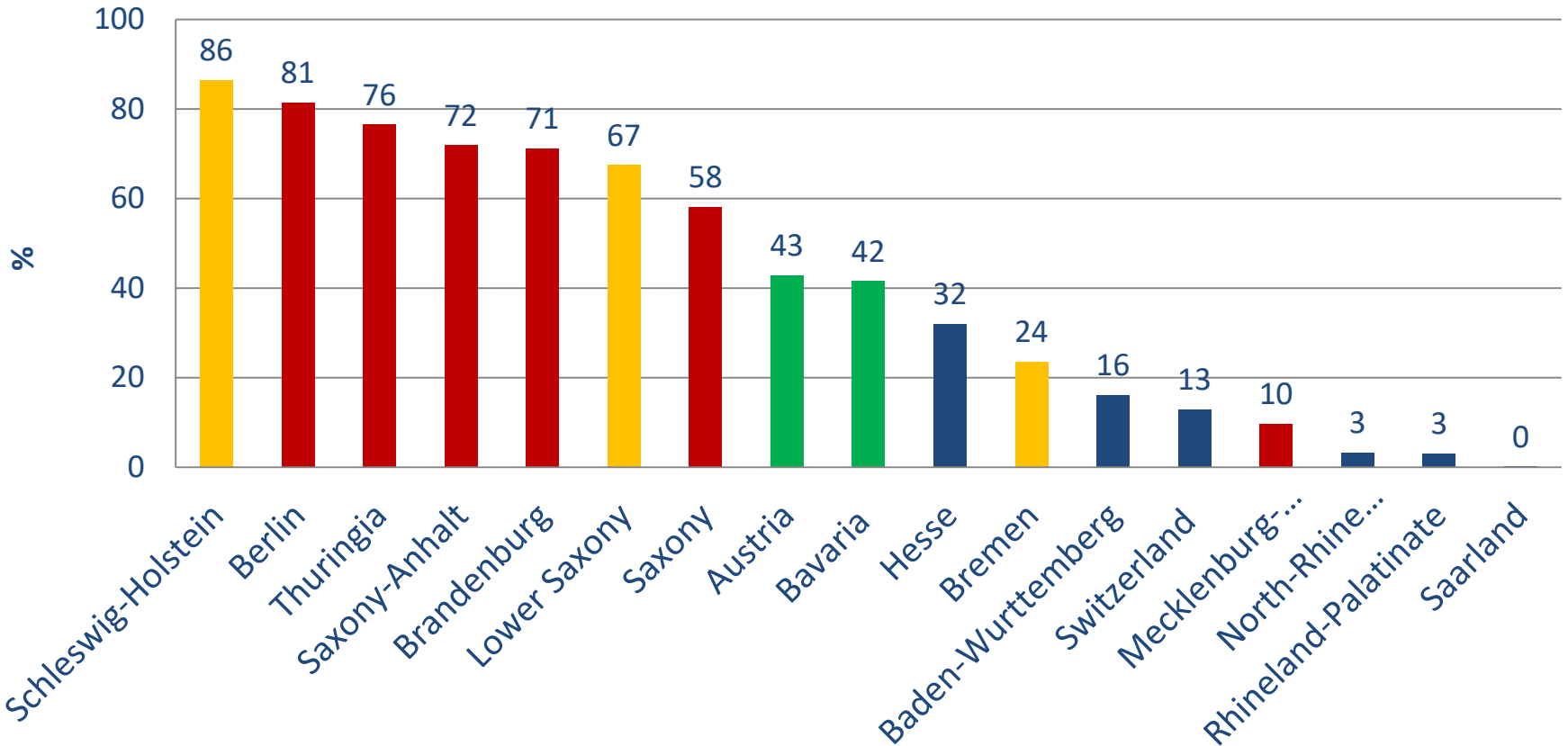


Source: Destatis, calculation CCNR



Share of port of Hamburg in total hinterland traffic per region (%)

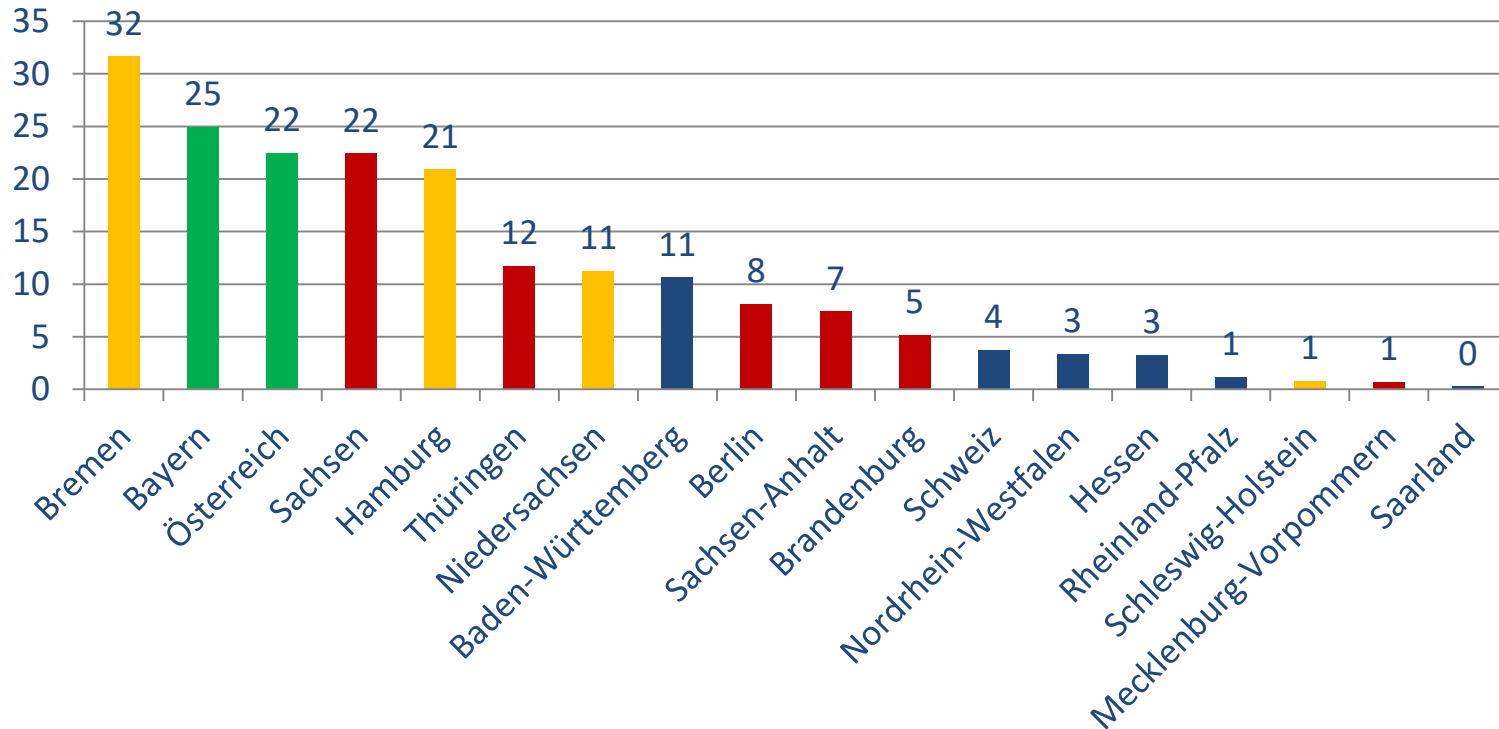
Blue = Western Germany, Switzerland
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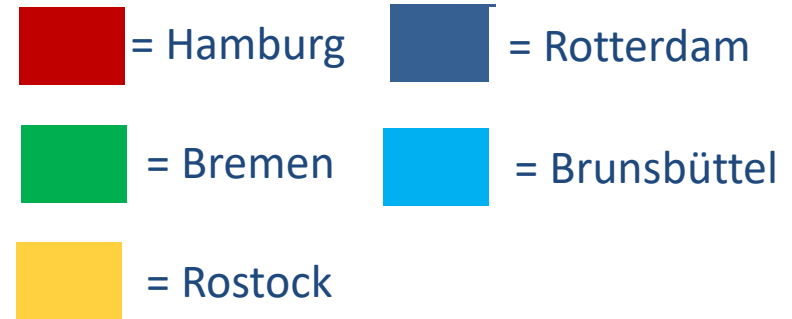
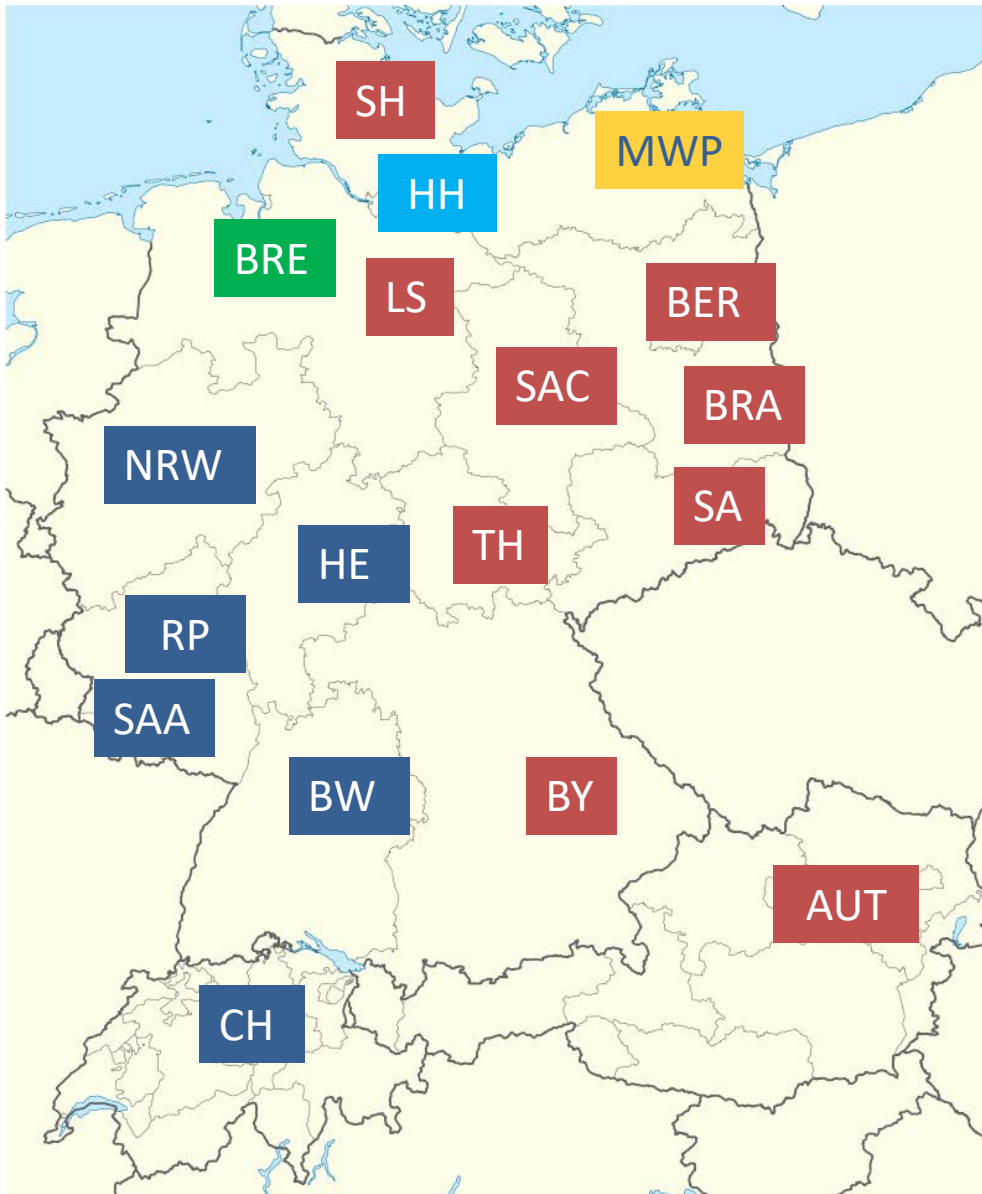
Share of port of Bremen in total hinterland traffic per region (%)

Blue = Western Germany, Switzerland
Green = Bavaria, Austria
Yellow = Northern Germany
Red = Eastern Germany





Germany, Austria and Switzerland – seaport majorities



In 8 out of 16 German federal states, the port of Hamburg is the most important seaport for hinterland traffic.

In 5 out of 16 German states, the port of Rotterdam is the most important seaport. These 5 states are in the western and southern part of Germany

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Conclusions



I First Conclusions

- The **ARA ports** have a high share in **import traffic** to the German, Austrian and Swiss hinterland.
- At the same time, **ARA ports** have a high affinity to **inland shipping** hinterland traffic.
- **German seaports** have a strong affinity to **rail traffic** in the hinterland, especially for **export** traffic. The port of Bremen has much higher market shares in export traffic than in import traffic
- **Parts of northern Germany are also very IWT-related** (Schleswig-Holstein), in combination with the seaport of Hamburg
- The hinterland traffic to / from **Switzerland** resembles, in its structure, very much the patterns observed in **western and southwestern parts of Germany**.
- The hinterland traffic to / from **Austria** resembles, in its structure, very much the patterns observed for **Bavaria**.



THANK YOU VERY MUCH