

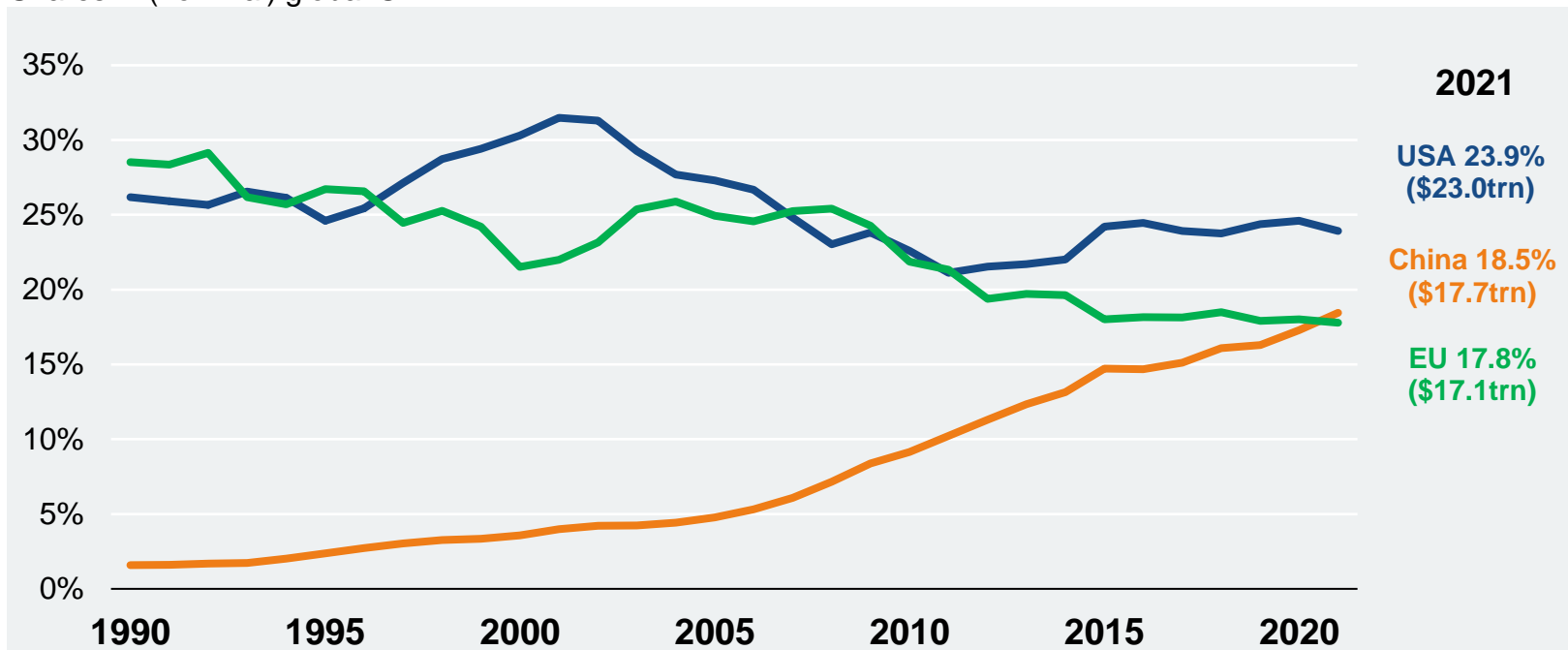
Economic significance of China for the German electro and digital industry

– November 2022

(Global) Economic output

– China in 2021 for the first time ahead of the EU

Shares in (nominal) global GDP

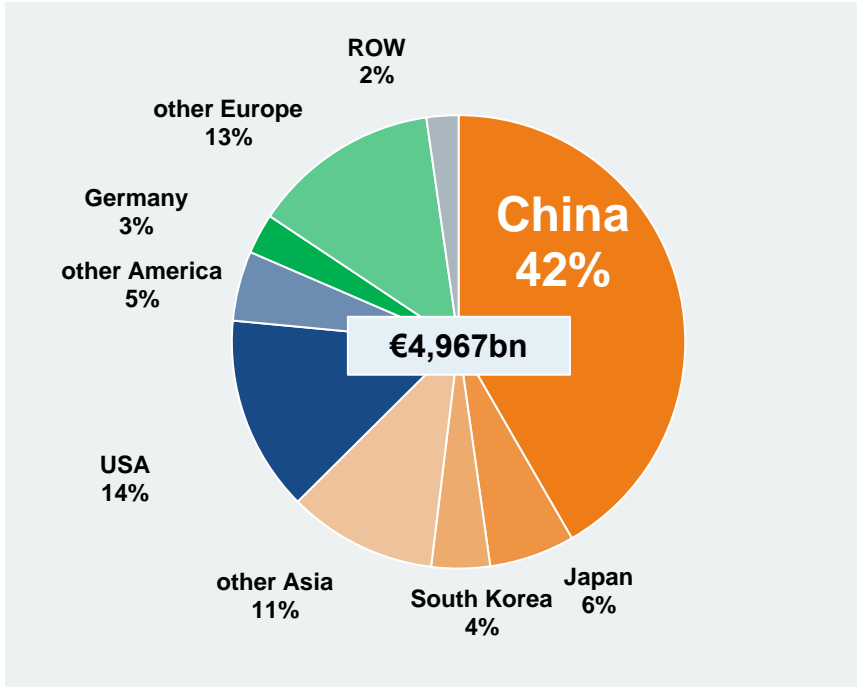


Quelle: World Bank

Global electro market

– China: By far both the biggest market and manufacturer

2021, Shares in global electro market, %

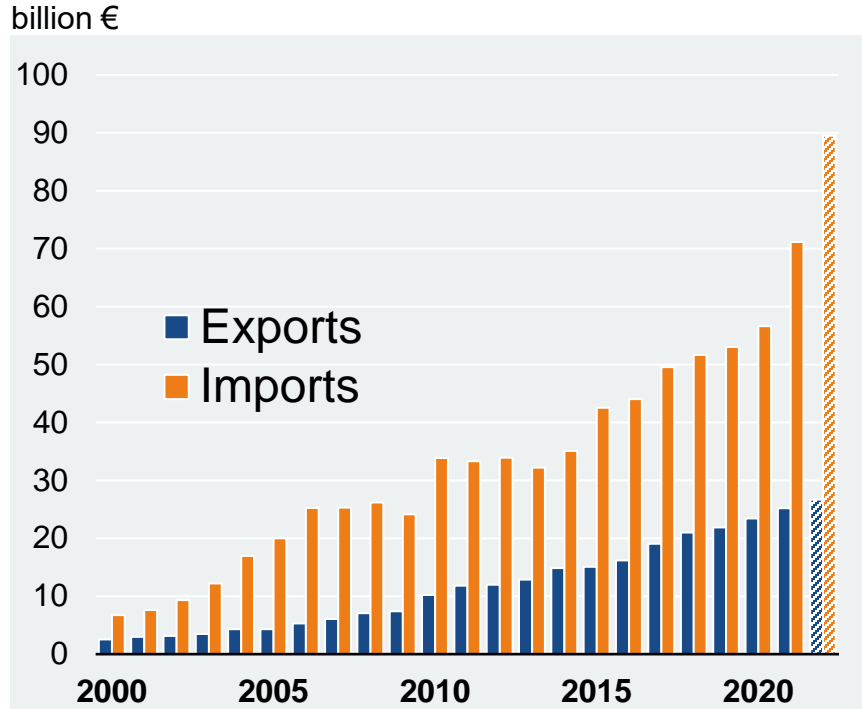


Source: National statistical offices and ZVEI's own calculations

- With 52%, China alone contributes more than half of the global production of electro goods
- China's share in the global market for products of the electro and digital industry is 42%. (Asia as a whole accounts for almost two-thirds of the global market.)
- The Chinese electro market is bigger than the two continental markets of Europe (16%) and America (19%) taken together
- At the turn of the millennium China's share was only 6%
- Since 2000 the Chinese electro market has – on average – grown by 13% per year (compared to a growth rate of +3% p.a. for the global market)

German foreign electro trade with China (1)

– Almost one-third of all German electro imports come from China

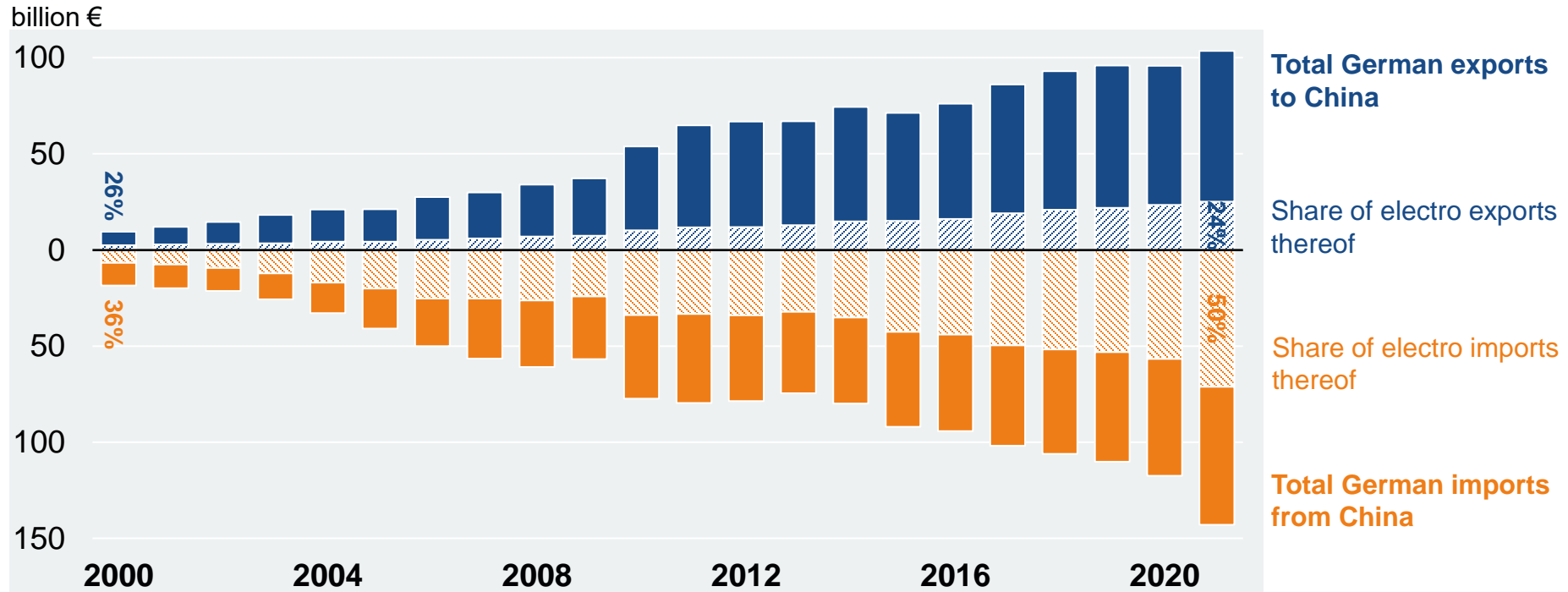


Source: German statistical office and ZVEI's own calculations

- Exports of the German electro and digital industry to China in 2021 came to €25.2bn. They account for 11% of the sector's total deliveries abroad (of €226.3bn)
- Between 2000 and 2021 the sector's exports to China have increased tenfold
- Meanwhile, China is the biggest customer country for the German electro and digital industry's deliveries abroad (ahead of the USA and France)
- Regarding German imports of electrical and electronic products, China's significance is even greater (2021: €71.1bn or rather 32%)
- Hence, Germany's electro trade balance with China was deeply negative in 2021 (-€46bn)

German foreign electro trade with China (2)

– Share of electro goods in German exports and imports

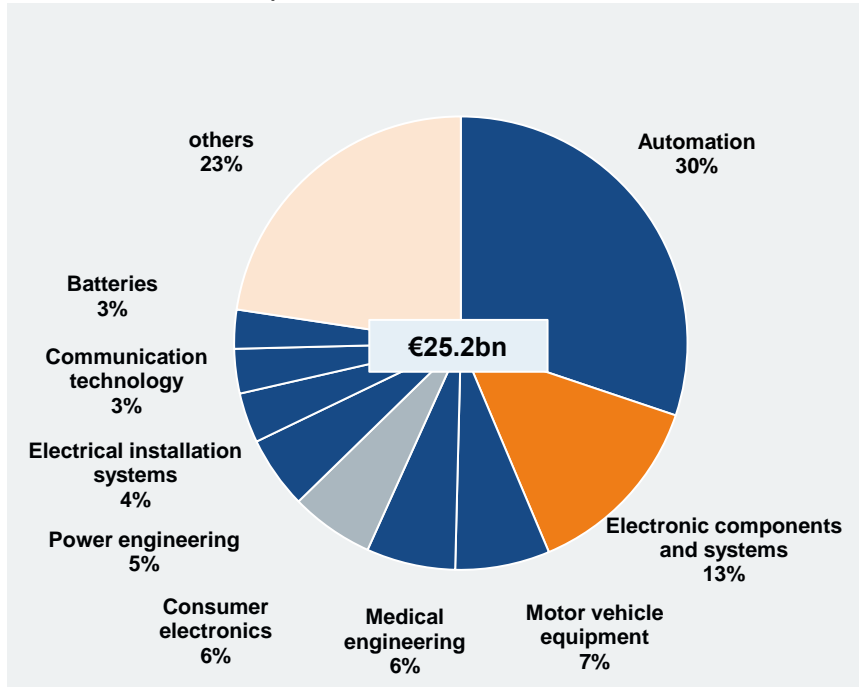


Source: German statistical office and ZVEI's own calculations

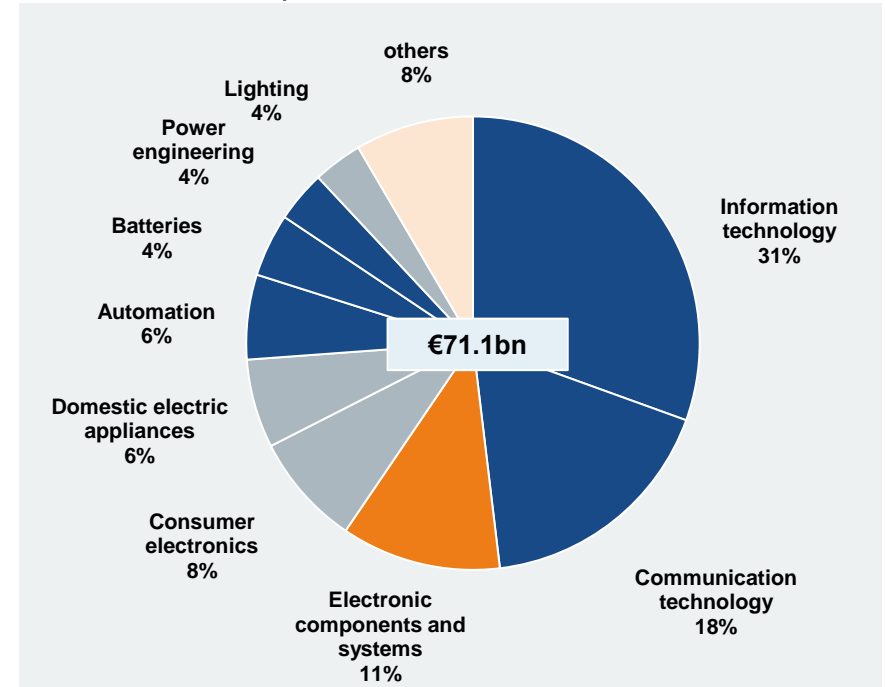
German foreign electro trade with China (3)

– Structure of exports and imports by sub-sectors

German electro exports to China, 2021, shares



German electro imports from China, 2021, shares

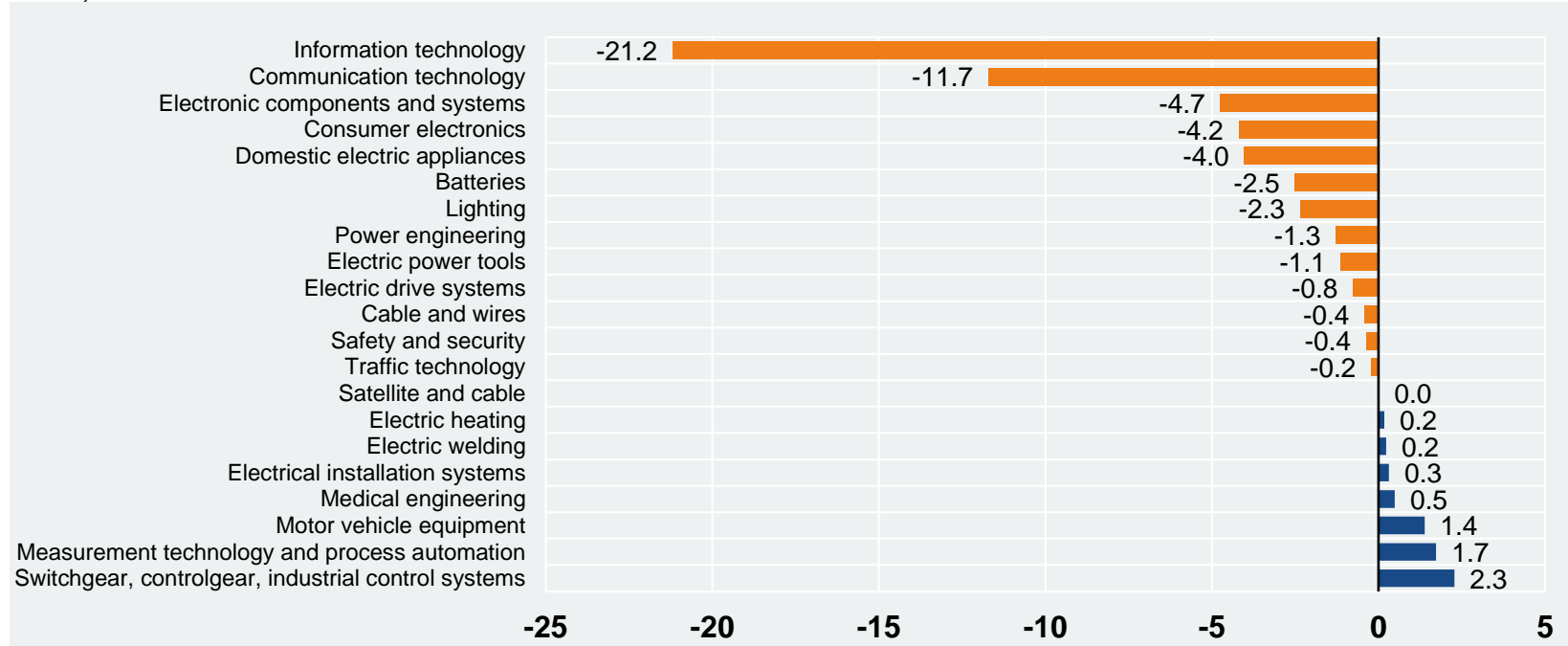


Source: German statistical office and ZVEI's own calculations

German foreign electro trade with China (4)

– Trade balances by sub-branches

2021, billion €

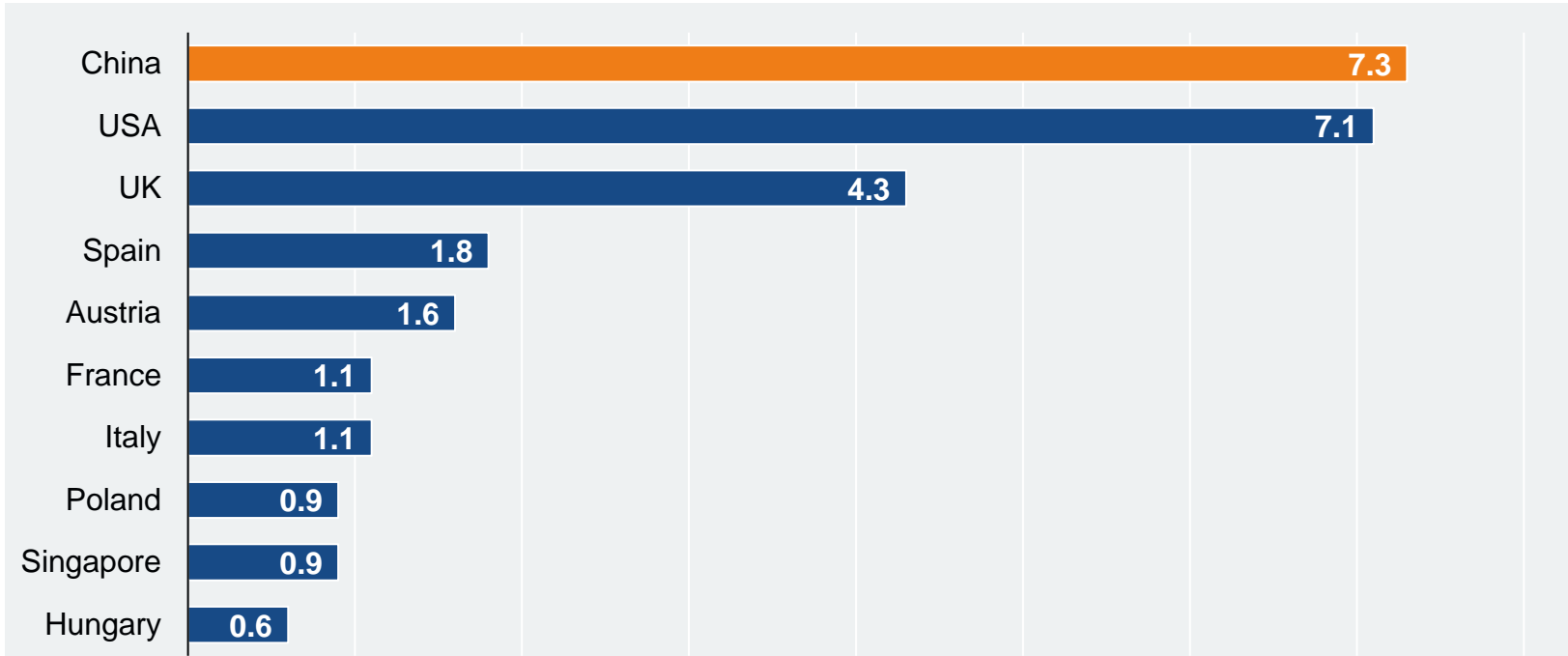


Source: German statistical office and ZVEI's own calculations

FDI stocks of the German electro and digital industry

– China is the sector's biggest foreign location

Top ten FDI locations of the German electro and digital industry, stocks in 2020, billion €

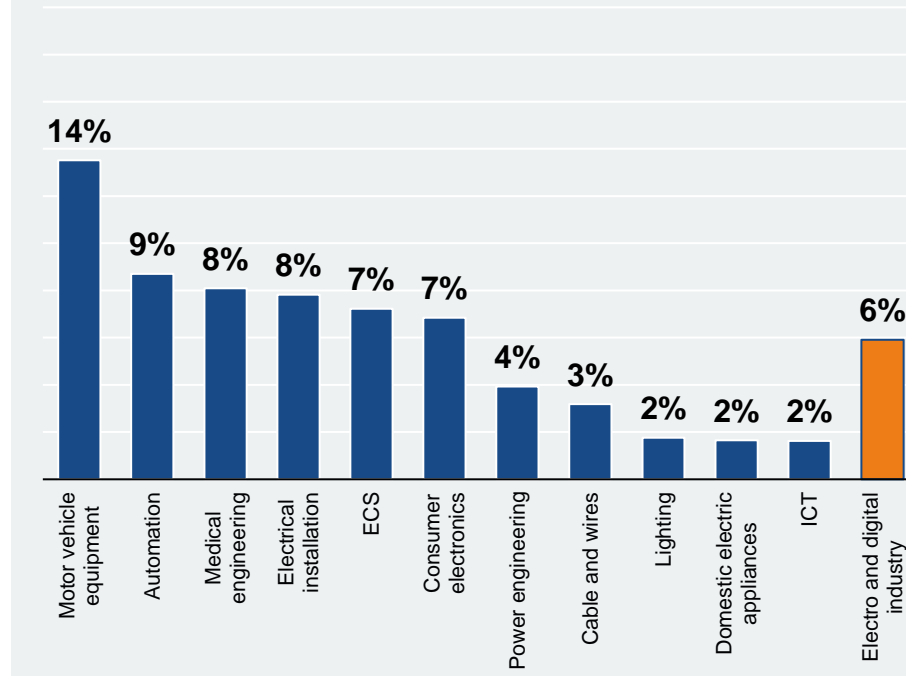


Source: Deutsche Bundesbank and ZVEI's own calculations

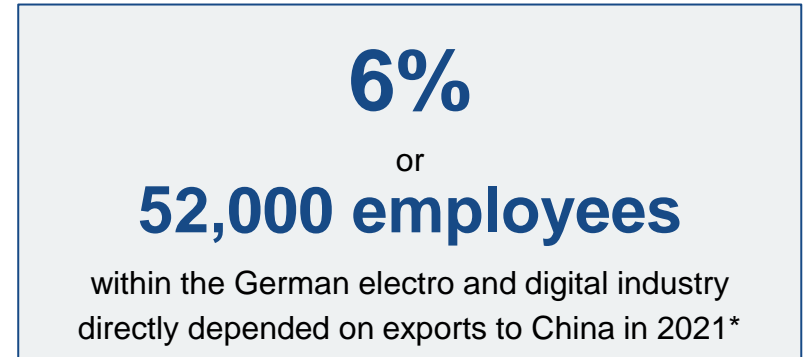
German electro and digital industry

– Employees directly depending on exports to China

Share in respective total number of employees in Germany, 2021, %



Source: German statistical office and ZVEI's own calculations

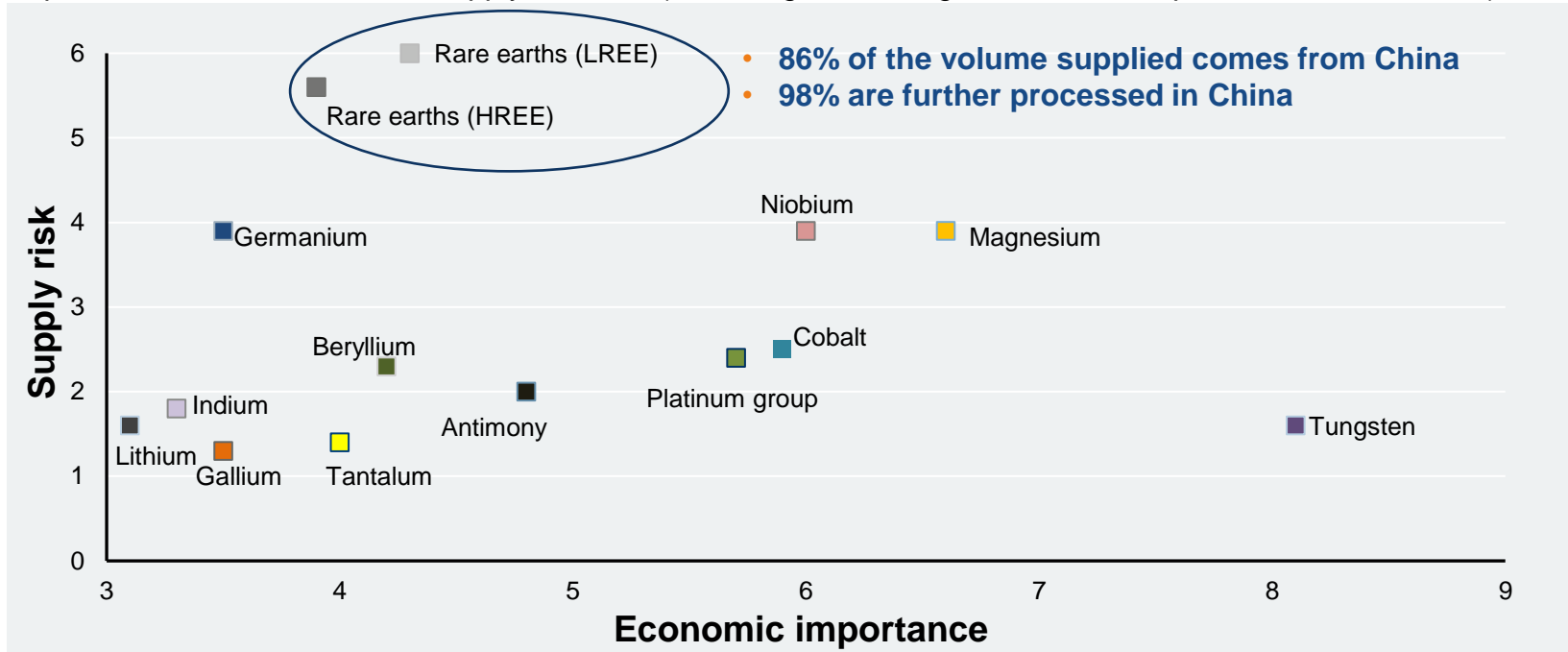


*without accounting for indirect and mediate effects

Critical raw materials

– Dependence on China especially relates to rare earths

Important raw materials whose supply is critical (scale: higher reading means more important or rather critical)



Source: Study on the EU's list of critical raw materials (2020), final report

Economic relations to China

– Big industrial sectors by comparison

Industrial sector	Exports to China (2021)	Imports from China (2021)	Balance (2021)	FDI stock in China (2020)
Electro/digital	€25.2bn <i>1st rank</i>	€71.1bn <i>1st rank</i>	-€45.9bn	€7.3bn <i>1st rank</i>
Chemistry + pharmacy	€11.5bn <i>7th rank</i>	€9.3bn <i>7th rank</i>	+€2.2bn	€7.7bn <i>3rd rank</i>
Mechanical engineering	€19.3bn <i>2nd rank</i>	€9.7bn <i>1st rank</i>	+€9.6bn	€4.6bn <i>3rd rank</i>
Automotive	€26.7bn <i>1st rank</i>	€4.0bn <i>11th rank</i>	+€22.7bn	€33.6bn <i>3rd rank</i>
Total Germany	€103.7bn <i>2nd rank</i>	€142.4bn <i>1st rank</i>	-€38.7bn	€89.5bn <i>4th rank</i>

Source: German statistical office, Deutsche Bundesbank, VCI, VDMA, ZVEI

Contact

Dr Andreas Gontermann

Chief Economist, Head of
Economic Policies and Statistics Department

Phone: +49 69 6302-273
email: andreas.gontermann@zvei.org

ZVEI e. V.

Electro and Digital Industry Association
Lyoner Straße 9, 60528 Frankfurt am Main

Matthias Düllmann

Data Analyst
Economic Policies and Statistics Department

Phone: +49 69 6302-329
email: matthias.duellmann@zvei.org