Global Reshoring & Footprint Strategy

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Agenda

1 Profile BCI Global

BCI Global

Corporate clients

- Manufacturing footprint strategy
- Supply chain optimization
- Location advice
- Business strategy development
- Strategic outsourcing
- Real estate strategy and projects

Profile

- Established in Nijmegen, the Netherlands in 1985
- Performed studies in more than 50 countries worldwide

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Forbes 2021
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Clients in High Tech, ICT & Electronics

belkin, ABB, cisco, Microsoft, Texas Instruments, DATARAM, dyson, SAMSUNG, DELL, TOSHIBA Leading Innovation, LOUD Technologies Inc., EMERSON, SIEMENS, Westcon Comstor, FAIRCHILD, LUMILEDS, logitech, Novell, flex, NCR, SAP, ERICSSON, INGRAM MICRO, PHILIPS, IBM, Farnell, mks | Spectra-Physics, Sun microsystems, hp, x-rite, Polaroid, LANIER

Clients in Medtech & BioPharma

Johnson & Johnson, AMGEN, KEMIN, Abbott, Baxter, Biogen, stryker, Medtronic, BD, Pfizer, Celgene, Coloplast, Starkey Hearing Technologies, NOVARTIS, Arla, novocure, ESSILOR, BIO-RAD, BIOMÉRIEUX, Takeda, Deltec, FERRING PHARMACEUTICALS, Alcon, ucb, ThermoFisher SCIENTIFIC, Mallinckrodt, Advanced Medical Solutions, Allergan, MEDIQ, CardinalHealth, abbvie, Mead Johnson Nutrition, Wyeth, HAEMONETICS, SANOFI GENZYME, Transitions, HENRY SCHEIN

Clients producing Industrial Products

parenco, Tredegar Corporation, LELY, VDL, NORTHROP GRUMMAN, MITSUBISHI, 3M, BOBST, utc Université de Technologie Compiègne, United Technologies, amcor, RICOH, BORAL, Norit leading in purification, BRIGGS & STRATTON, SILGAN WHITE CAP, VIDEOJET, AVERY DENNISON, Pella, ALFA LAVAL, Mitutoyo, pitney bowes, MILACRON, SPXFLOW, VIRATEC, WÄRTSILÄ, MSA The Safety Company, ELLIOTT GROUP EBARA CORPORATION, Swedish Match, TENNANT, ALCAN, outokumpu, ArcelorMittal, CORNING, esco, ZEBRA, McGREGOR

Clients in the Automotive Industry

TOYOTA, YAMAHA, brembo, KOMATSU, DENSO, MANTRAC CAT, GENTHERM, Fleetguard, GATX, GOODYEAR, CATERPILLAR, TEXTRON, Cummins, JOHN DEERE, WWW. group, HYVA, POLARIS, VDL, Donaldson. FILTRATION SOLUTIONS, sgl carbon, EATON Powering Business Worldwide

Clients in Chemicals, Materials & Energy

Clients in Food & Beverages Industries

Clients in Fashion and Apparel

Clients in Logistics

Footprint Strategy: Global or Regional?

BCI Global

Key Drivers

Internal
- Business growth
- Margin pressures
- Product phase in/out
- M&A activities

Industry
- New competitors
- New mfg technologies
- Customer requirements
- Sustainability

External
- Market shifts
- Geopolitics
- New labor pools
- Regulatory changes
- Natural disasters

Key Challenges

- Labor quality and availability
- COGS/Total Cost to Serve
- Agility/Flexibility
- Uncertainty/Risk Mitigation
- Carbon Footprint

Typical Trade-Offs

- Relocate or Automate
- Economies of Scale versus Customer proximity
- Make or Buy
- Sustainable Footprint or Not
- Expand at current or relocate to new low-cost location
- Cost vs Quality vs Risk

Source: BCI

Companies follow the DE-strategy

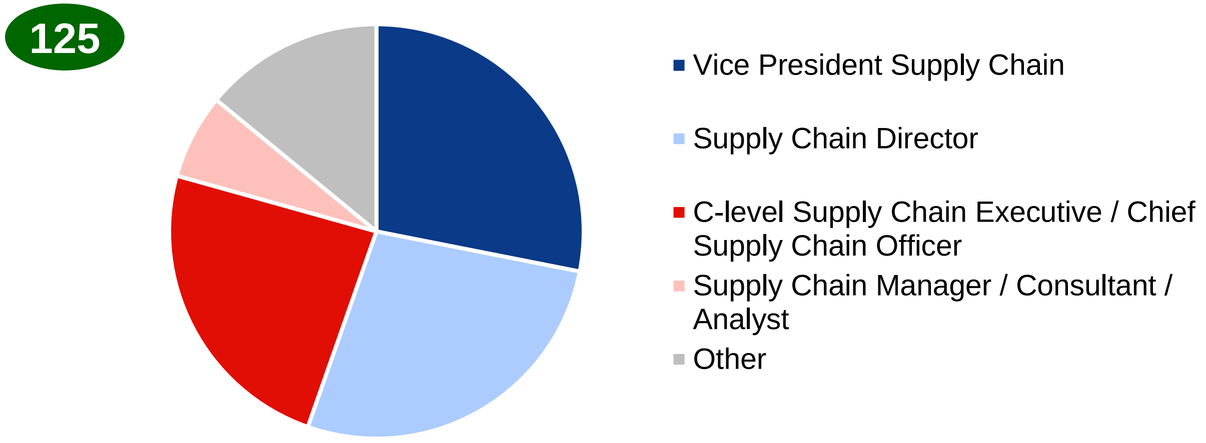
1 De-coupling China – US/Europe links
2 De-risking supply chains
3 De-single sourcing
4 De-centralizing production
5 De-carbonization

Five Footprint Strategies

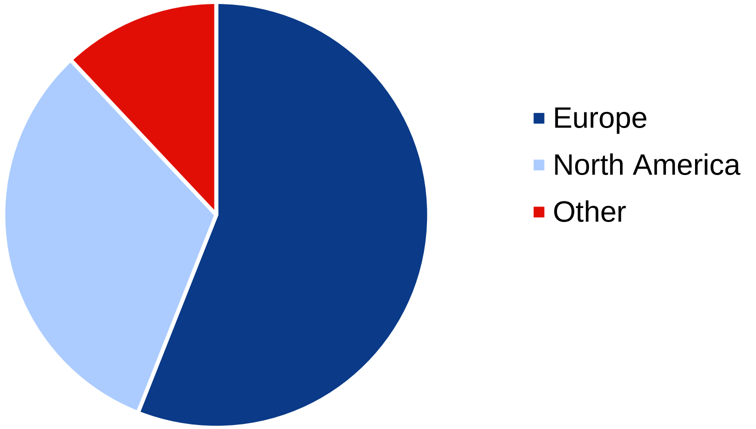
Footprint Strategies

A	B	C	D	E
Higher inventory levels in major markets	Nearsourcing	Decentrali-zation distribution	Decentrali-zation VAL/ Postponed assembly	Decentralization production | reshoring

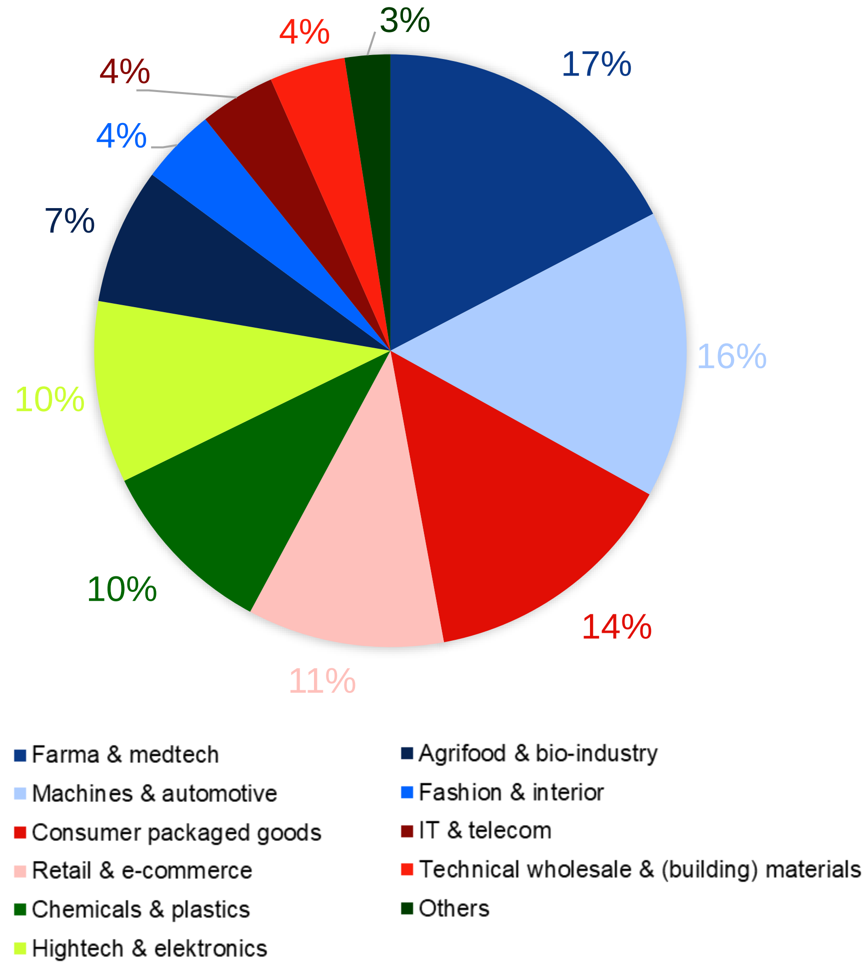
Respondents' position within the company



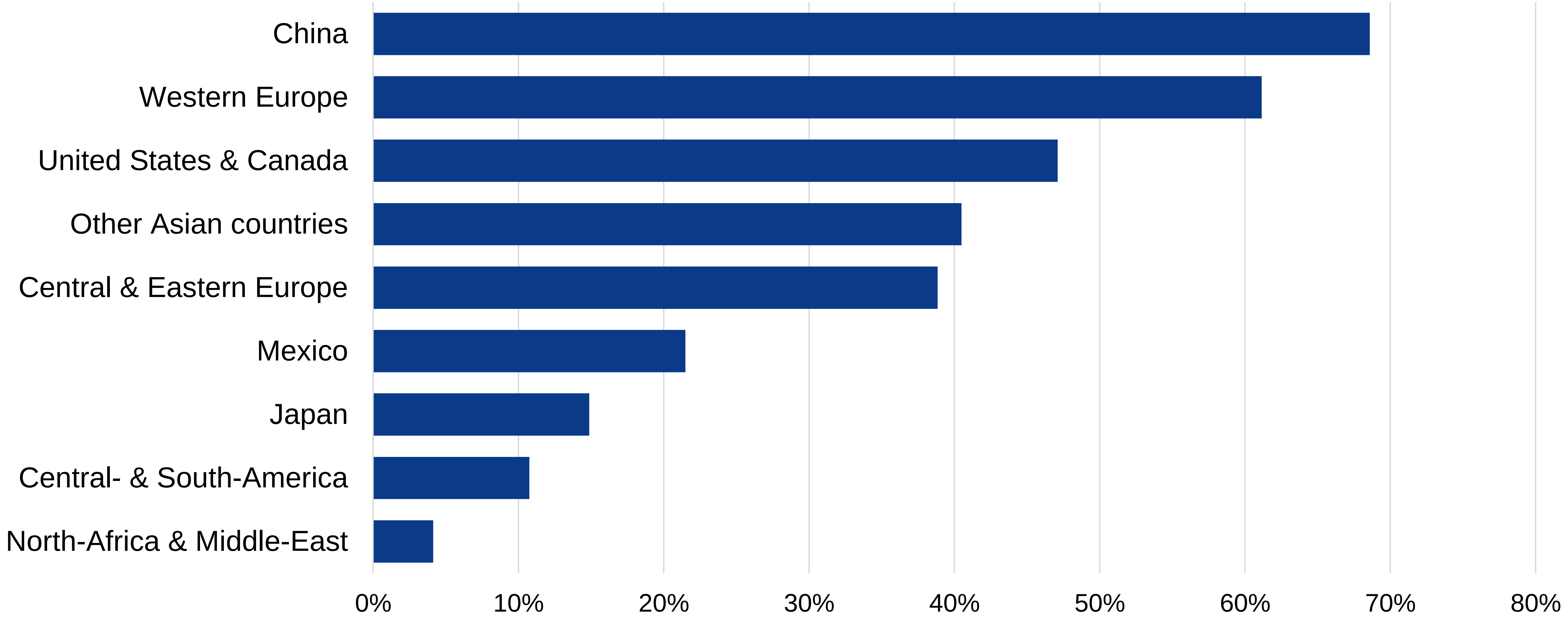
Country of Origin



Sectors of Industry

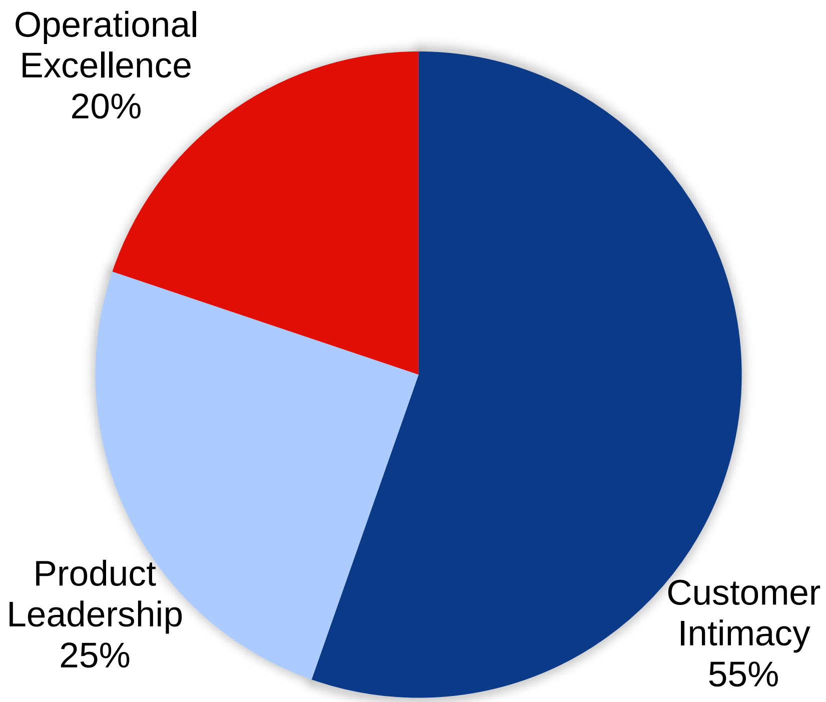


Today's key sourcing/manufacturing geographies

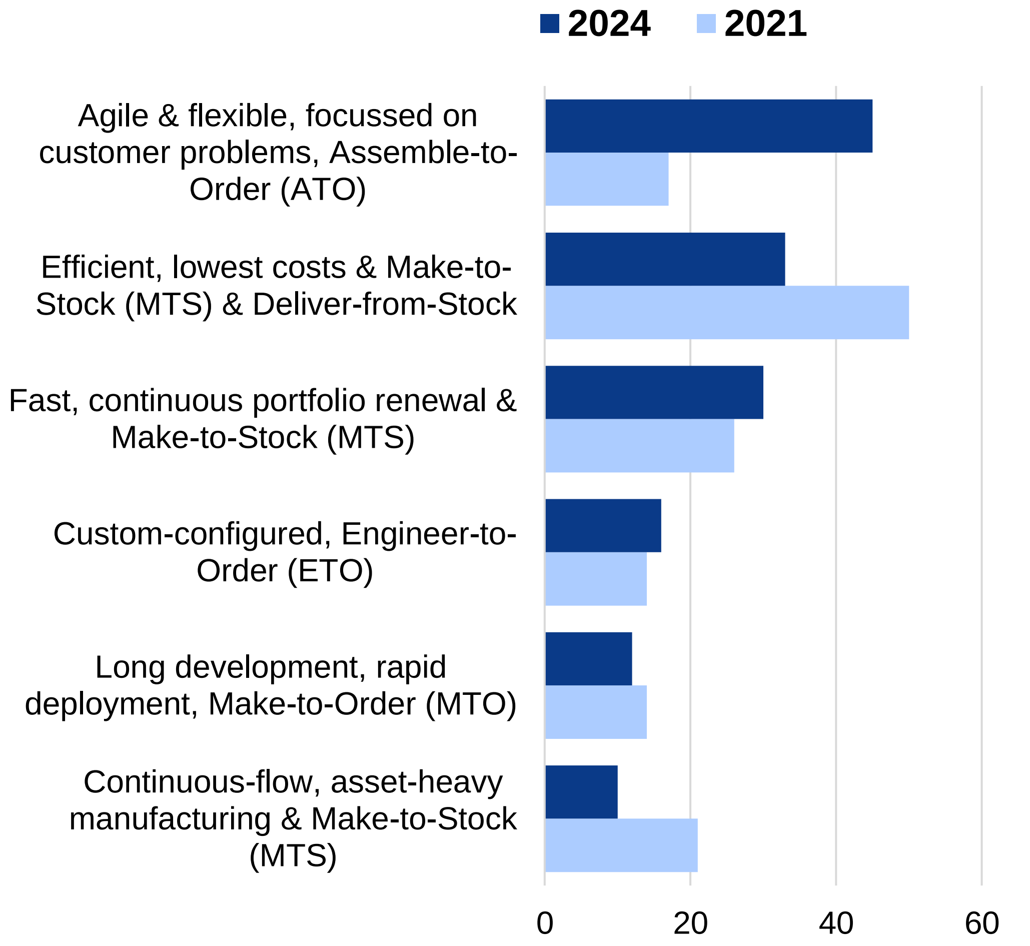


3 Business and Supply Chain Strategy

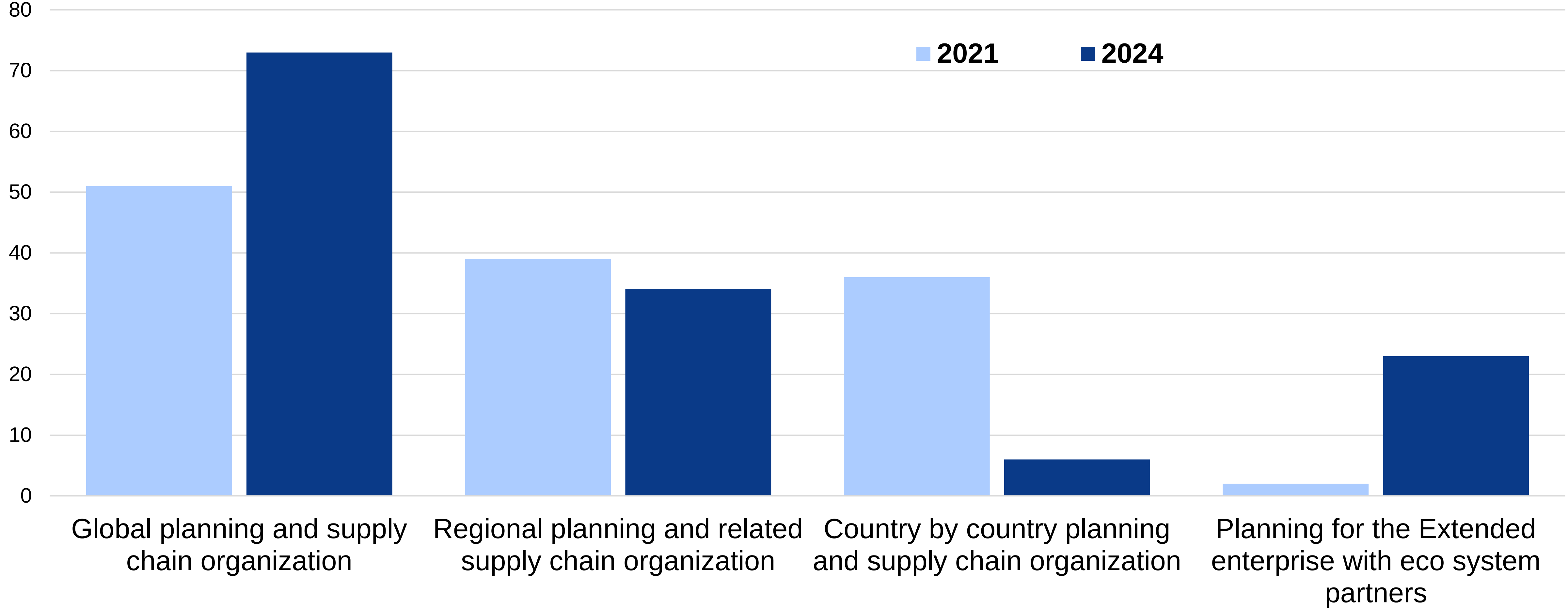
Business strategy



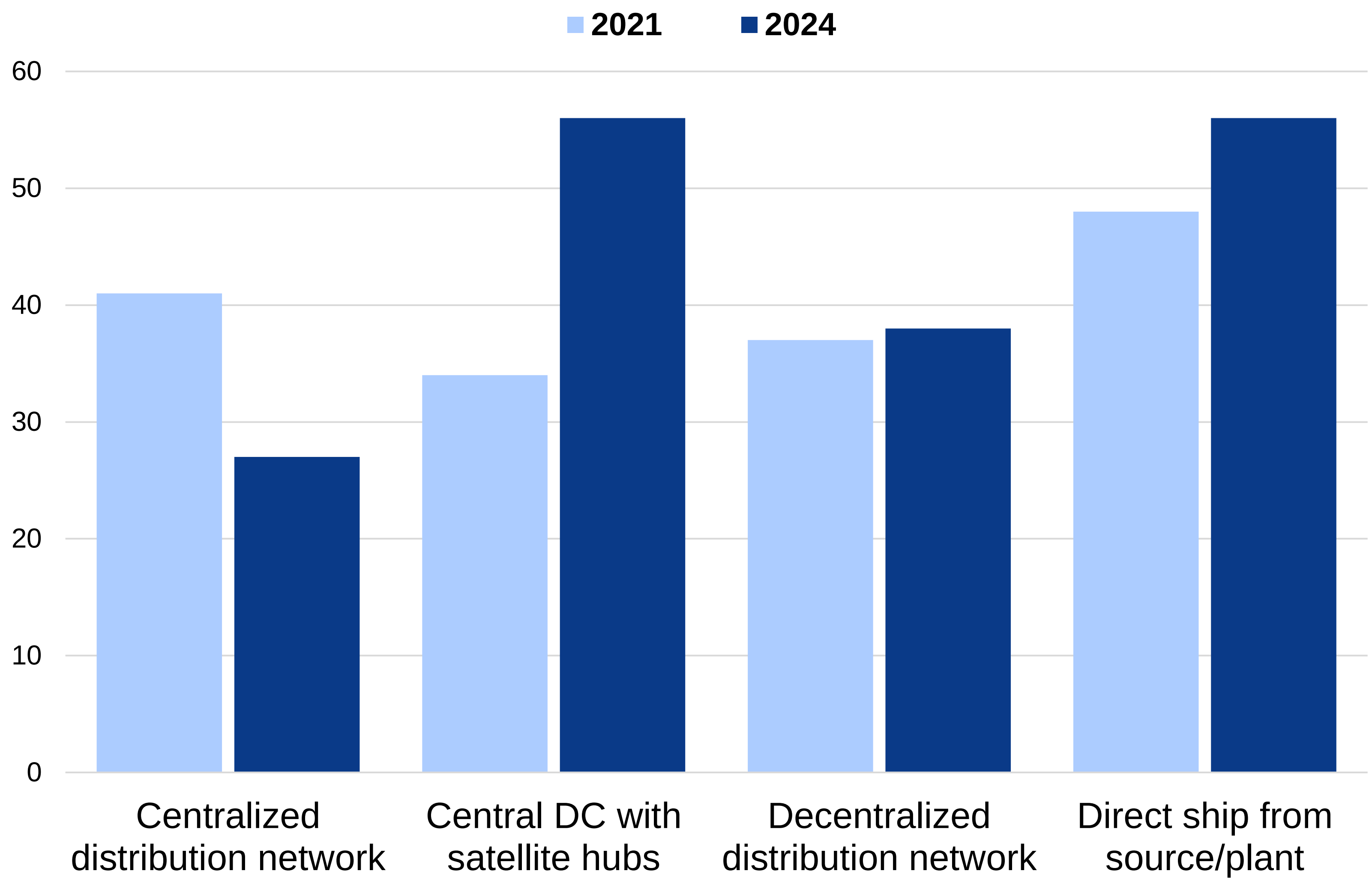
Supply Chain strategy



Planning and Supply Chain Organization: Shift towards global governance and managing the extended enterprise



Downstream footprint: Segmented downstream footprint with less adoption of the centralized model but rather a decentralized model and drop ship capability

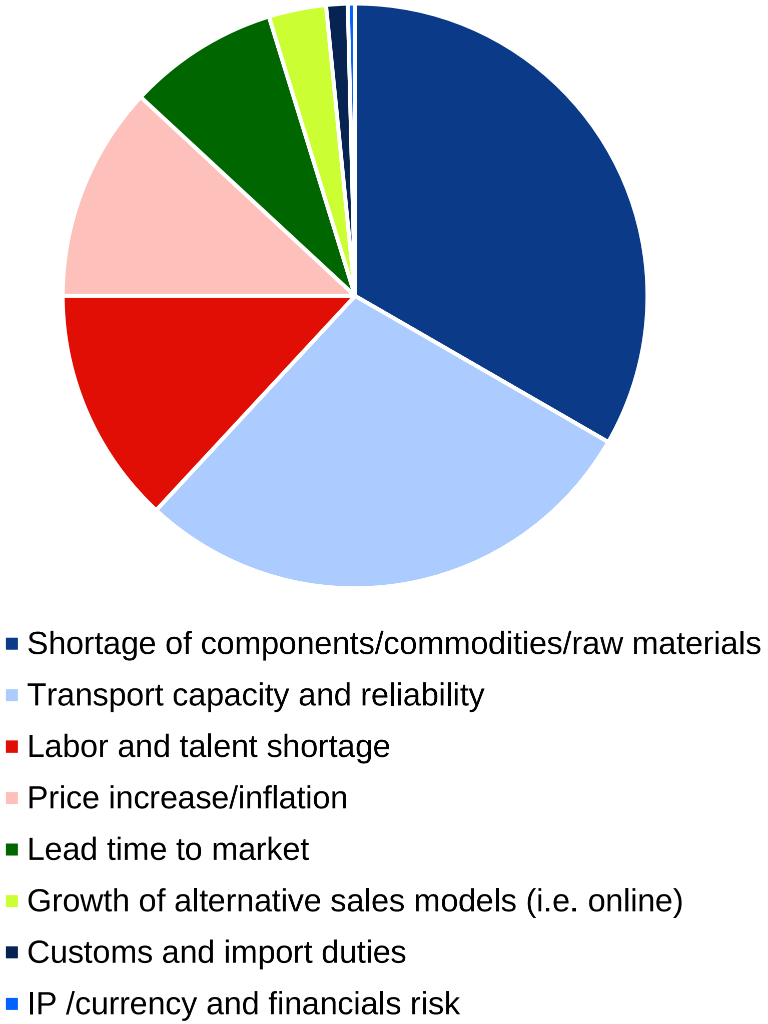


Businesses try to mitigate supply chain risk by decentralizing their demand-side footprint

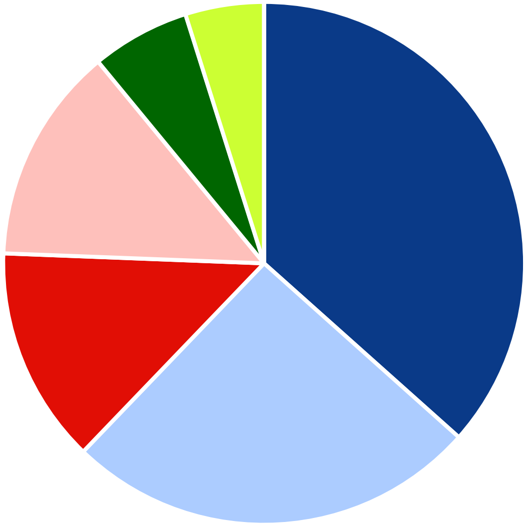
Key supply chain challenges today

Key supply chain challenges: Europe vs North America

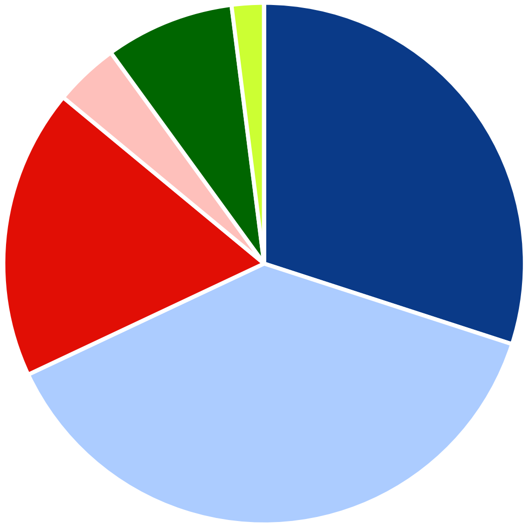
Overall



Europe

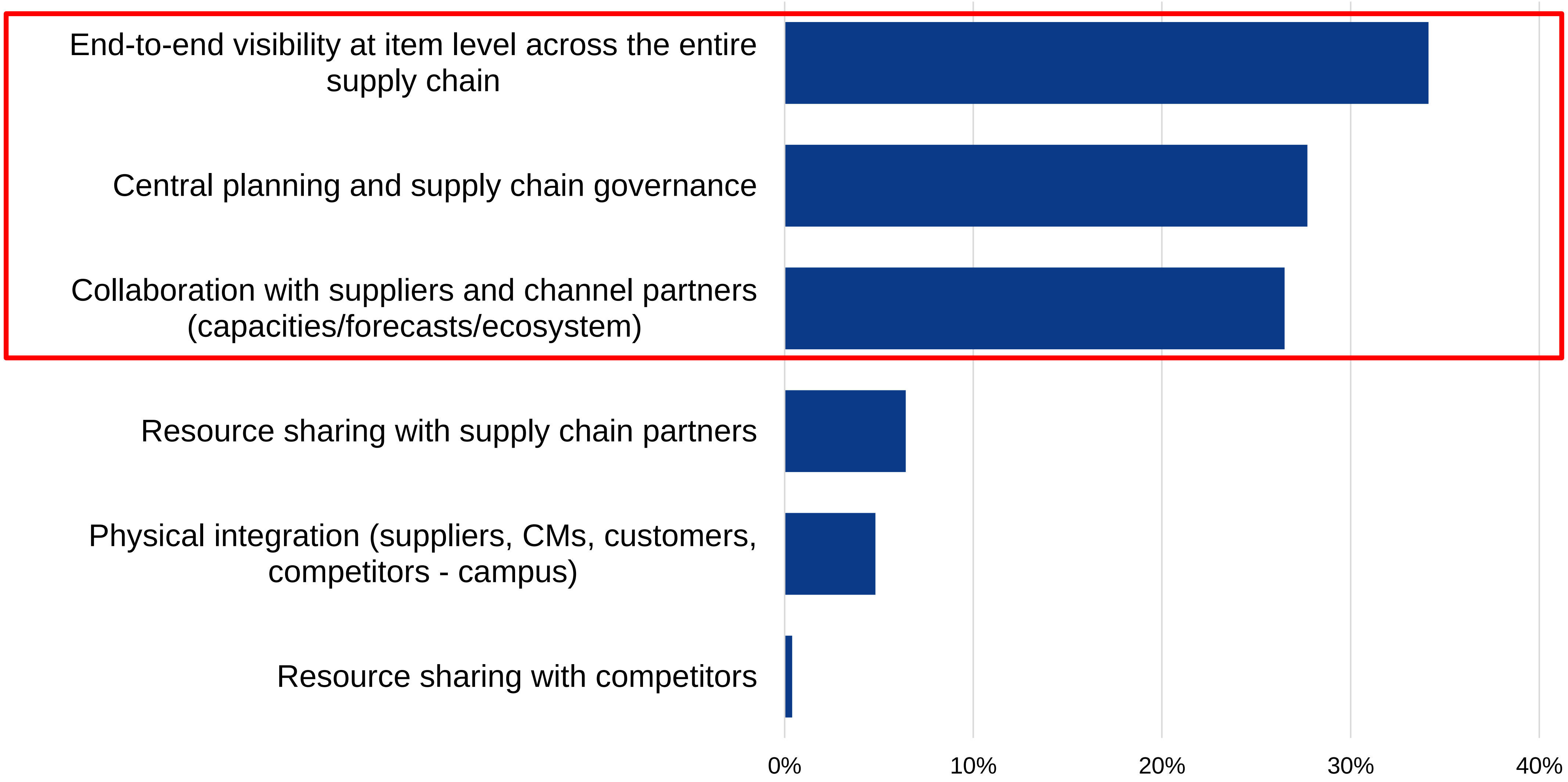


North America



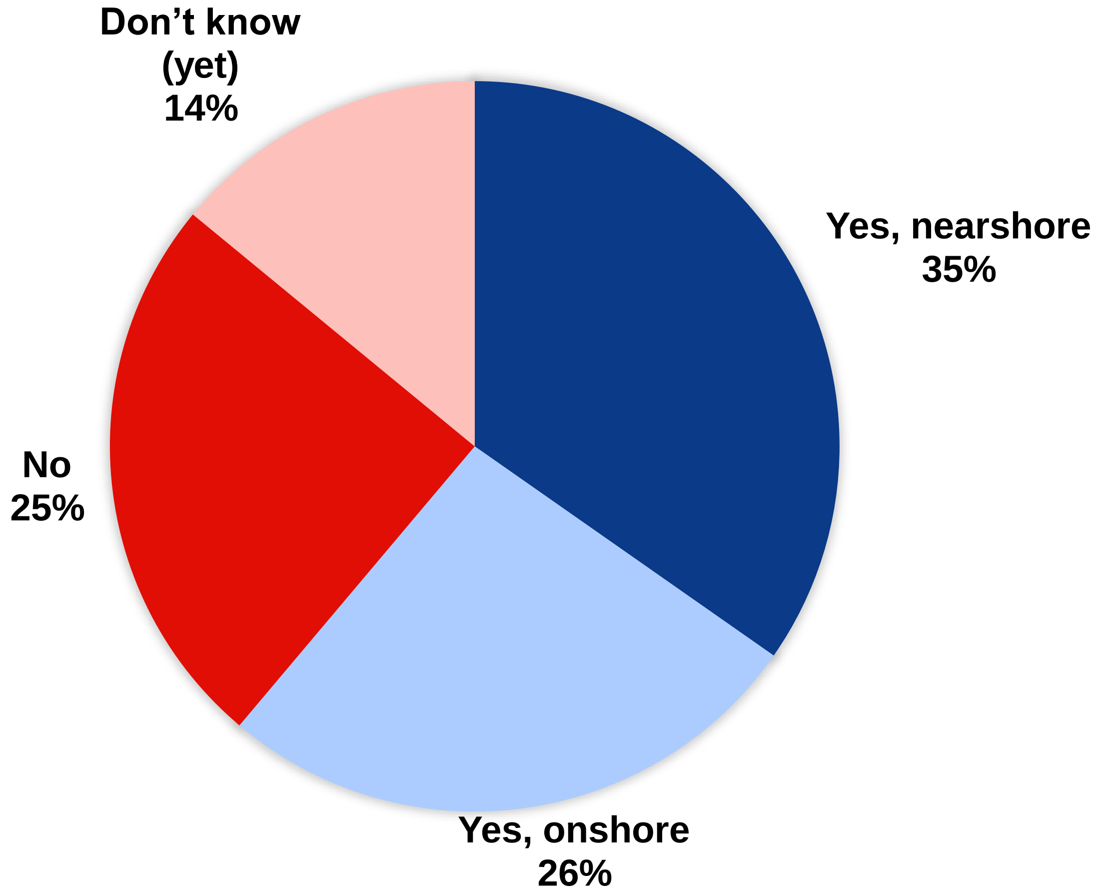
North American businesses report transport capacity and reliability as their biggest challenge, whereas overall the shortage of components, commodities and raw materials stand out

In which capabilities do companies expect to invest in?

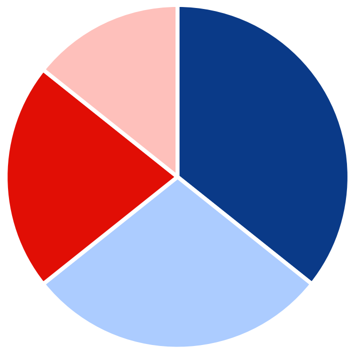


4 Decentralization of production and distribution

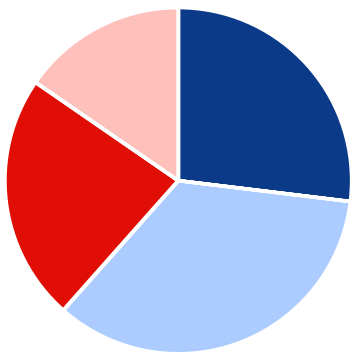
Over 60% is considering to onshore or re-shore in the next 3 years



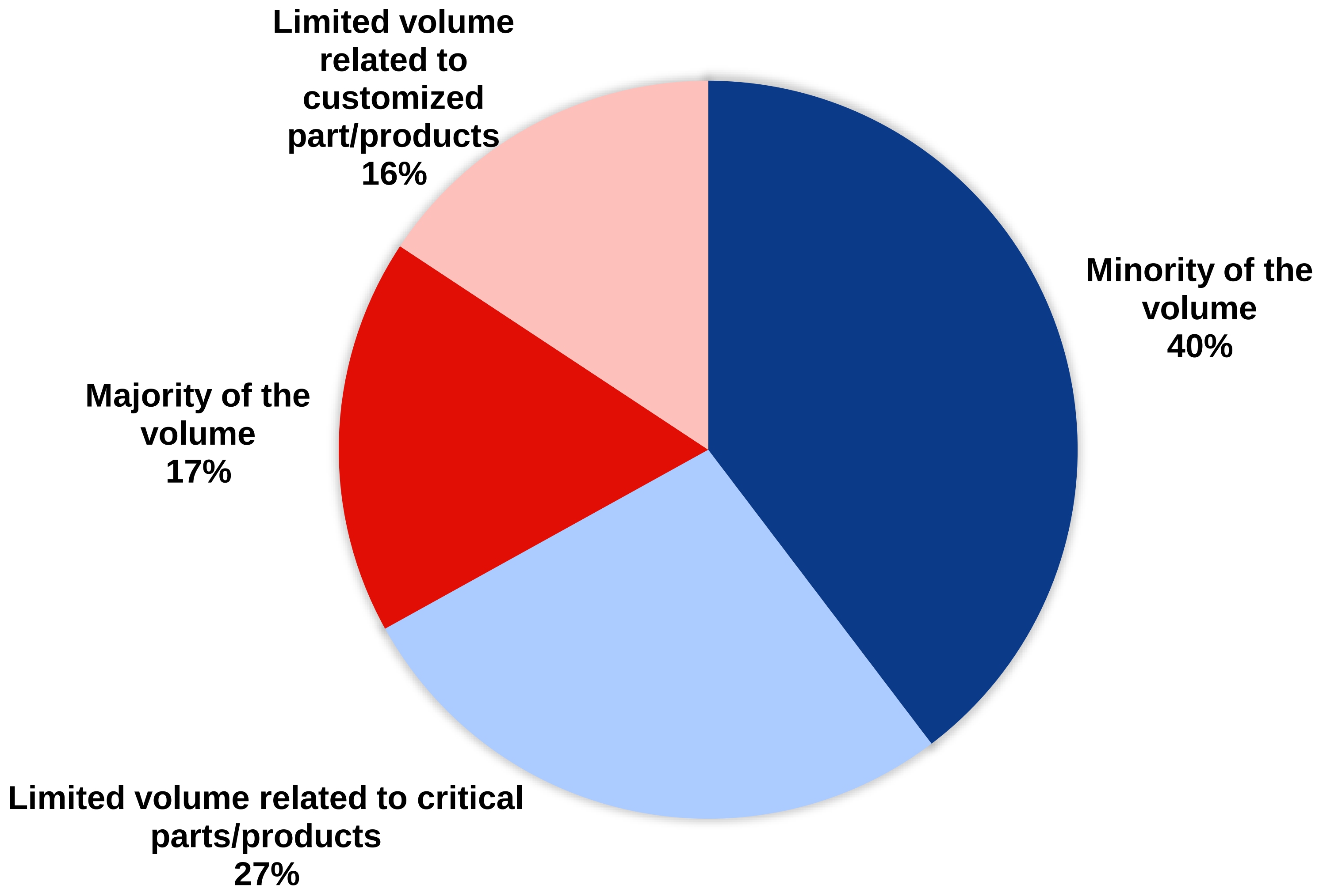
Europe



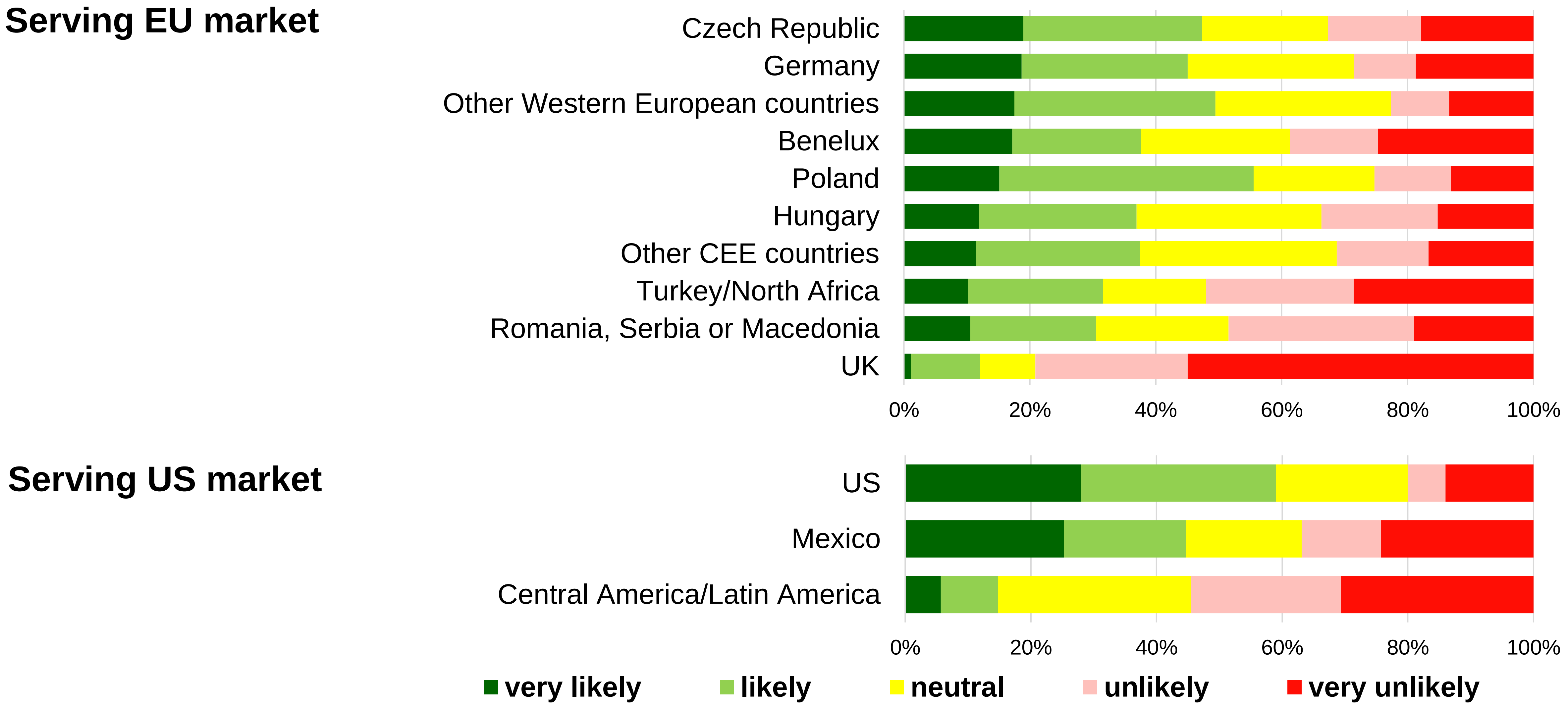
North America



However, onshoring/re-shoring for ‘only’ a part of the business

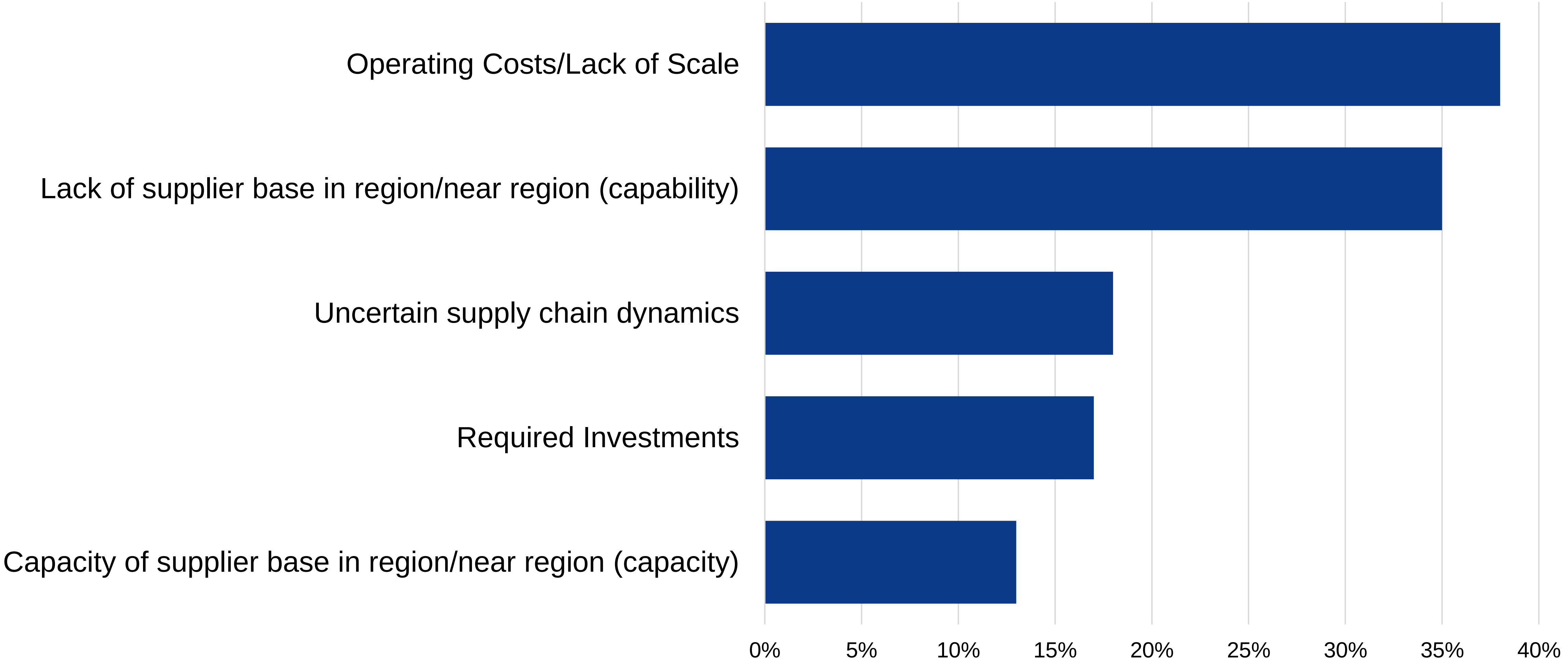


Geographical locations considered for reshoring



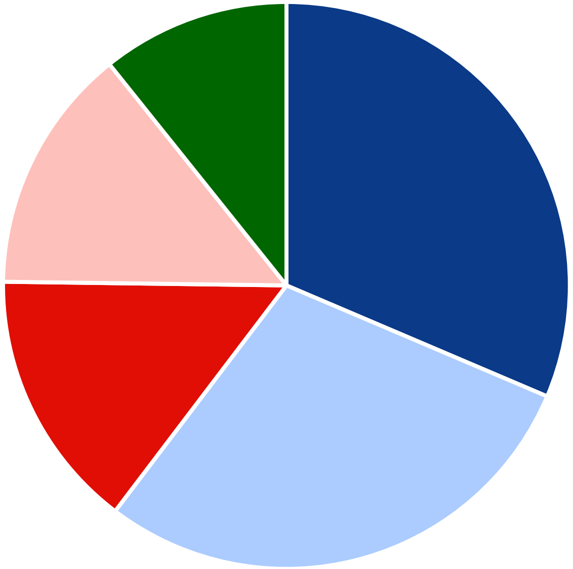
Barriers to reshoring (1/2)

Operating costs/Lack of scale and lack of supplier base top 2 barriers



Barriers to reshoring (2/2)

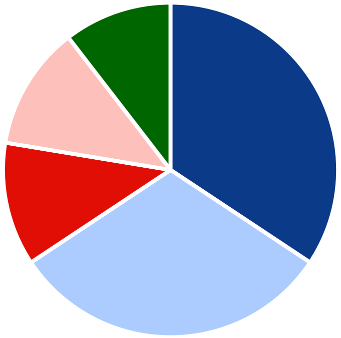
Overall



- Operating Costs/Lack of Scale
- Lack of supplier base in region/near region (capability)
- Uncertain supply chain dynamics
- Required Investments
- Capacity of supplier base in region/near region (capacity)

Customer intimacy

- Lack of scale/costs
- Suppliers' capabilities

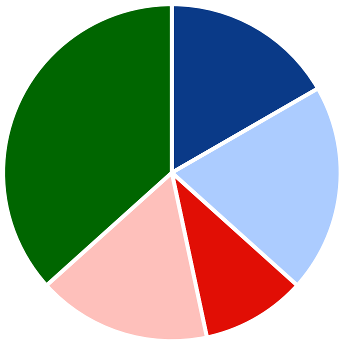


Operational excellence

- Required investments
- Suppliers' capacities in/near region

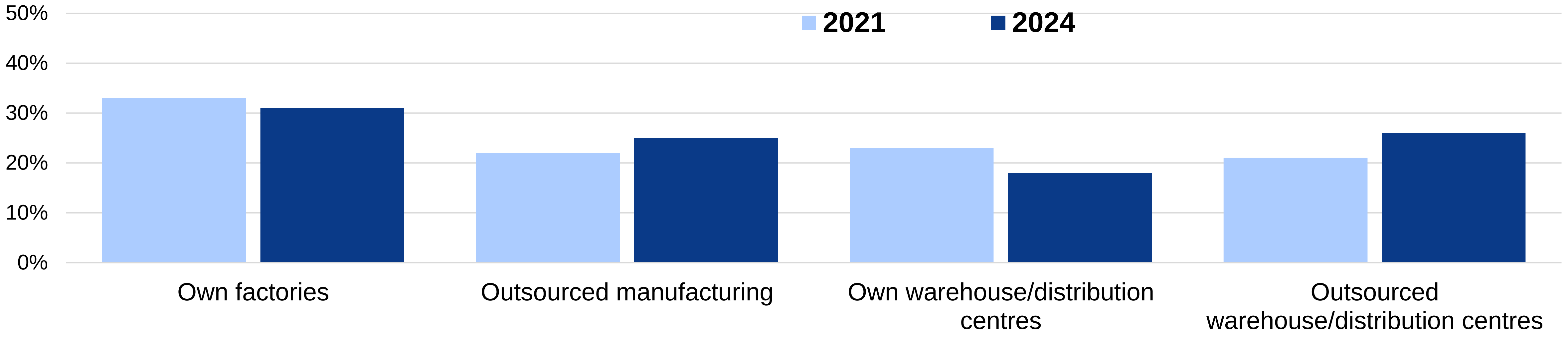
Product leadership

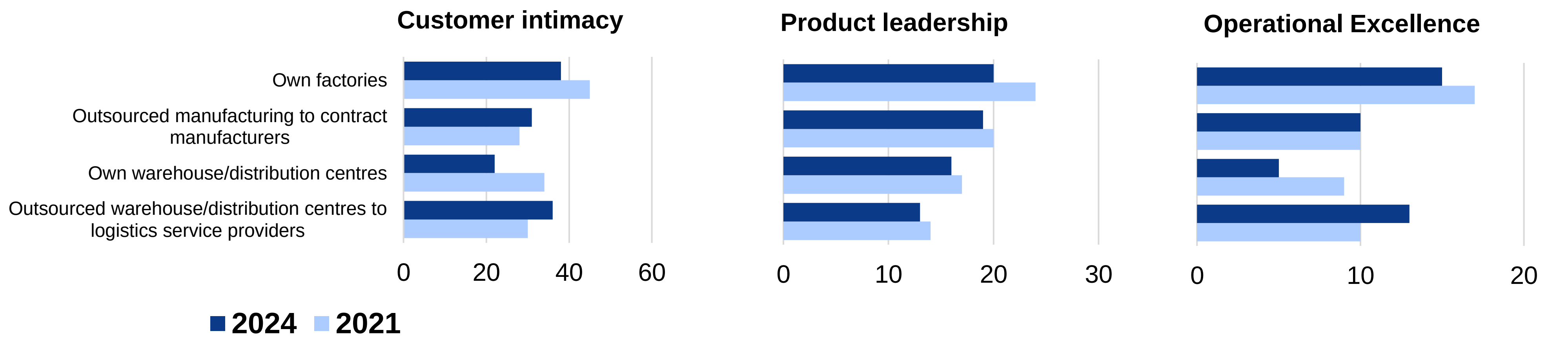
- Suppliers' capacities in/near region



5 Changes in Operations

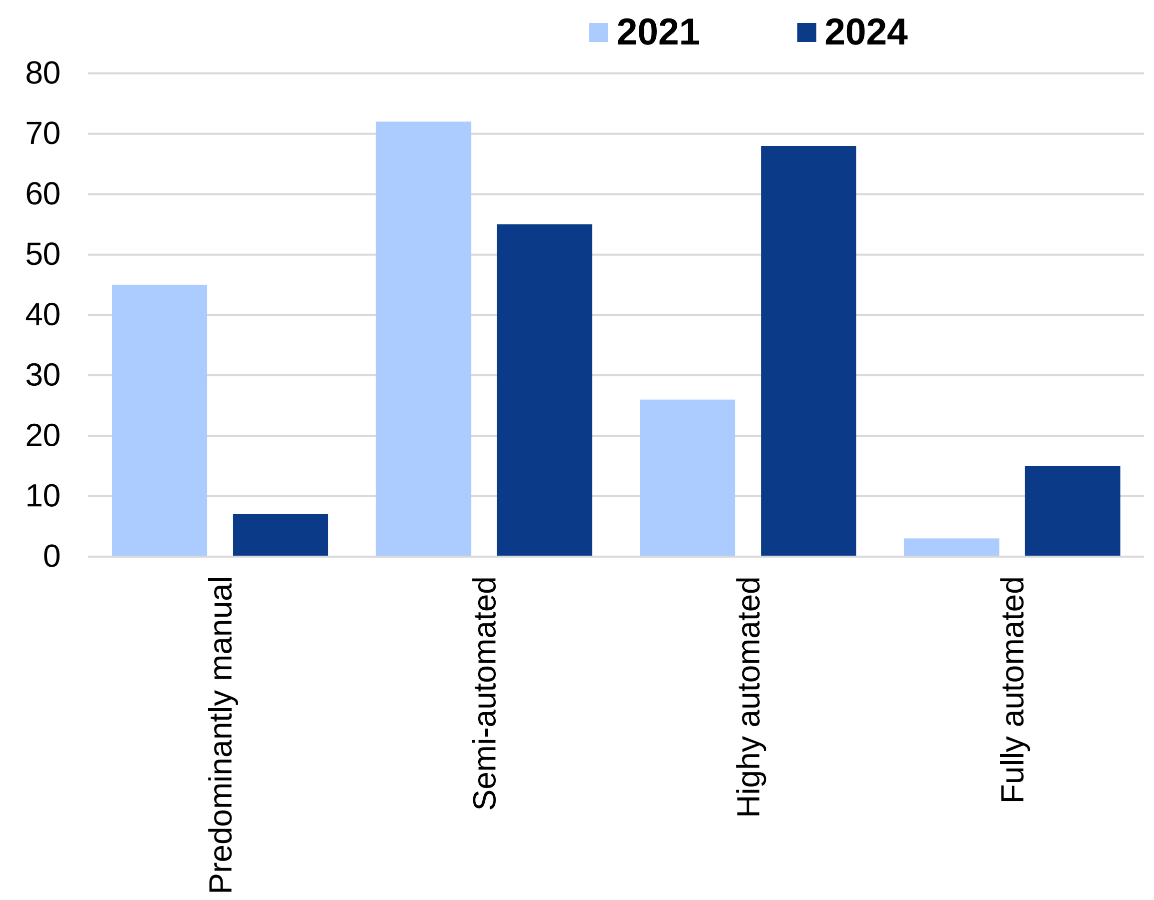
Outsourcing of manufacturing and distribution – outsourcing will continue to grow



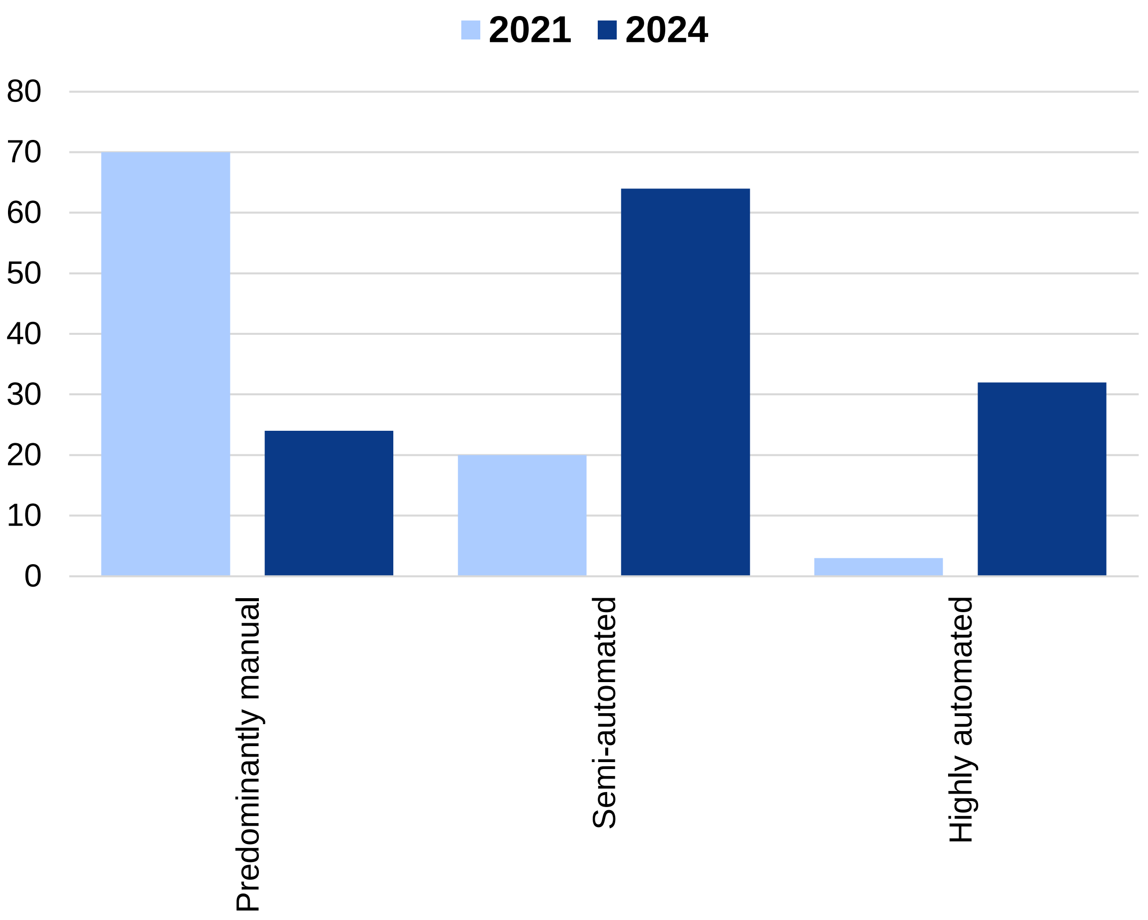


Technology Maturity

Major shift in adopting automated manufacturing processes



Shift from Manual towards more automated distribution centers



6 Conclusions

- Future Supply Chain Strategy needs to incorporate Agility and Flexibility – adoption of an Assemble To Order strategy and shifting away from a Make To Stock strategy

- Over 60% is expecting to onshore or re-shore in the next 3 years, but anticipated volumes to be shifted are limited to the minority of the volume and/or specific product lines

- Top geographies to re- shore/near shore in Europe: Czech Republic, Germany and Poland; for the US: US and Mexico

- Top barriers to re-shore and onshore include operating cost/lack of scale and lack of supplier base

- **Significant shift in technology adoption in both manufacturing and in distribution environments**

- **Decentralization not only in manufacturing – downstream footprint shifting away from centralized DC model towards decentralized model combined with drop ship capability**

- **Investments in supply chain capabilities required in End-to-End visibility, Central Planning & Governance and Collaboration with channel partners/ecosystem**