

Photonik in der industriellen Fertigung: Von der Forschung zur Anwendung

1. April 2025 in St. Gallen, Schweiz
Fachkonferenz Deutschland – Schweiz

Dr. Sven Breitung
Dr. Christian Hinke

Presentation

VDMA Working Group Laser and Laser Systems for Material Processing

- » Members (55 companies and institutes from DE, CH, AT, BE) include
 - Suppliers of components with a direct link to the end application
 - Laser manufacturers and system integrators
 - Research institutes and universities

- » Board of Directors
 - Dr. Christoph Ullmann, Laserline (Chairman of the Board)
 - Dr. Stefan Ruppik, Coherent (Deputy Chairman of the Board)
 - Nikolas Meyer, Weil Technology
 - Dr. Hagen Zimer, TRUMPF

- » Next meeting of the members on May 14th, 2025 at Weil Technology in Müllheim, Markgräflerland



Presentation

VDMA Working Group Laser and Laser Systems for Material Processing

» What we do

- A **platform to consult directly with potential customers**, to recognise market trends together at an early stage and to be able to react quickly to changing requirements
- Analysis of worldwide production and foreign **trade data for laser machines** and surveys on the current economic developments
- Positioning of laser technology in the context of **quantum technologies and photonics**
- **Industry-specific press work**, informing the public about the problem-solving competence of laser technology
- Information on topics and institutions in **national and European research funding**
- Development of an interface standard **OPC UA for Laser Systems**
- Co-organisation of **trade fairs and congresses**
- Structuring of **research funding programmes**
- Technical and legal advice on **export controls**

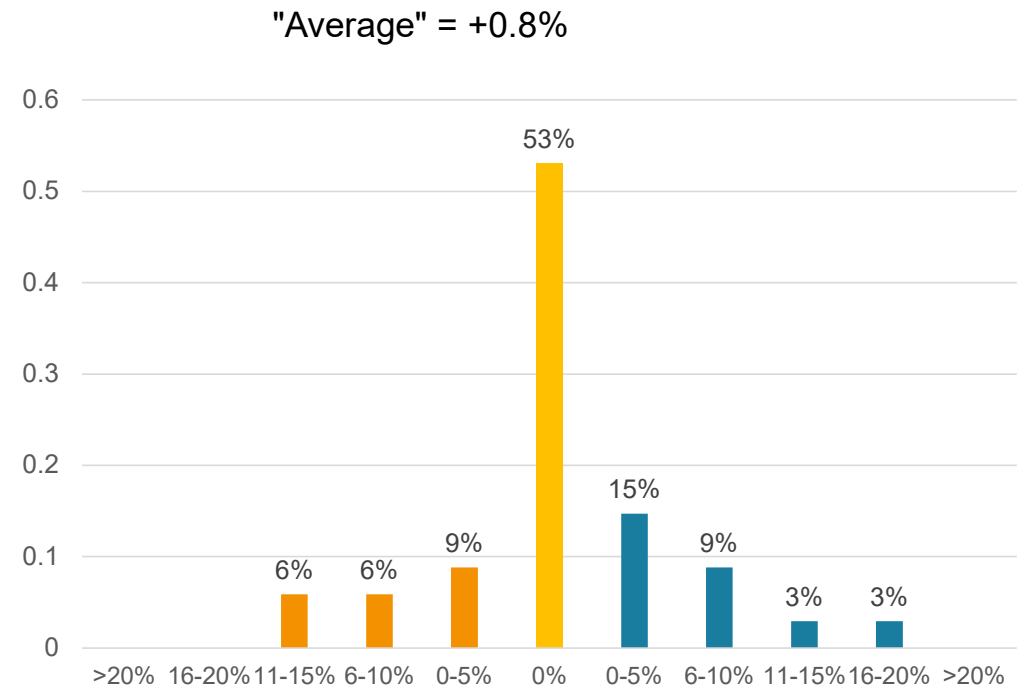
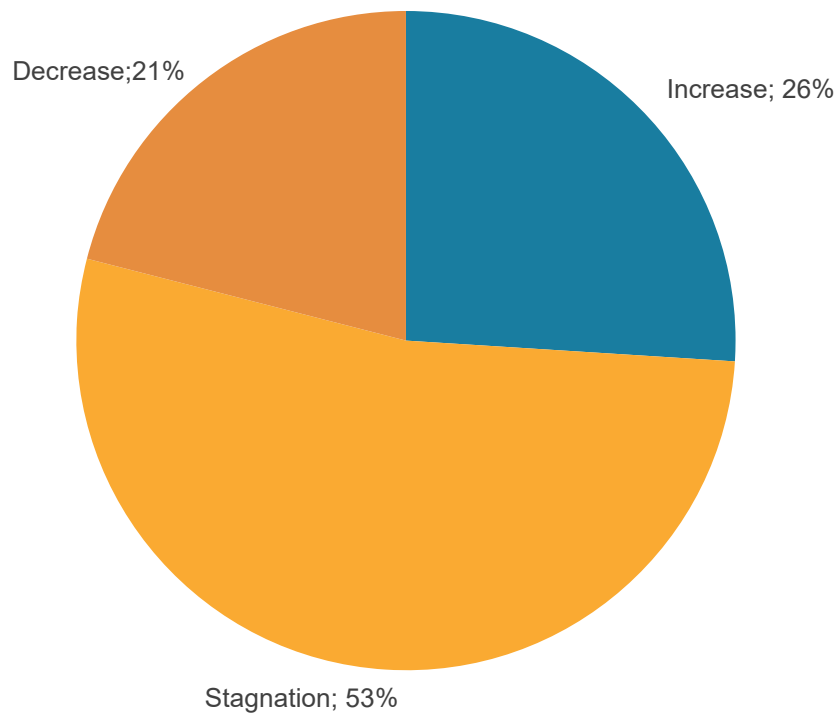
» What are the advantages of membership?

<https://www.vdma.org/viewer/-/v2article/render/80079745>



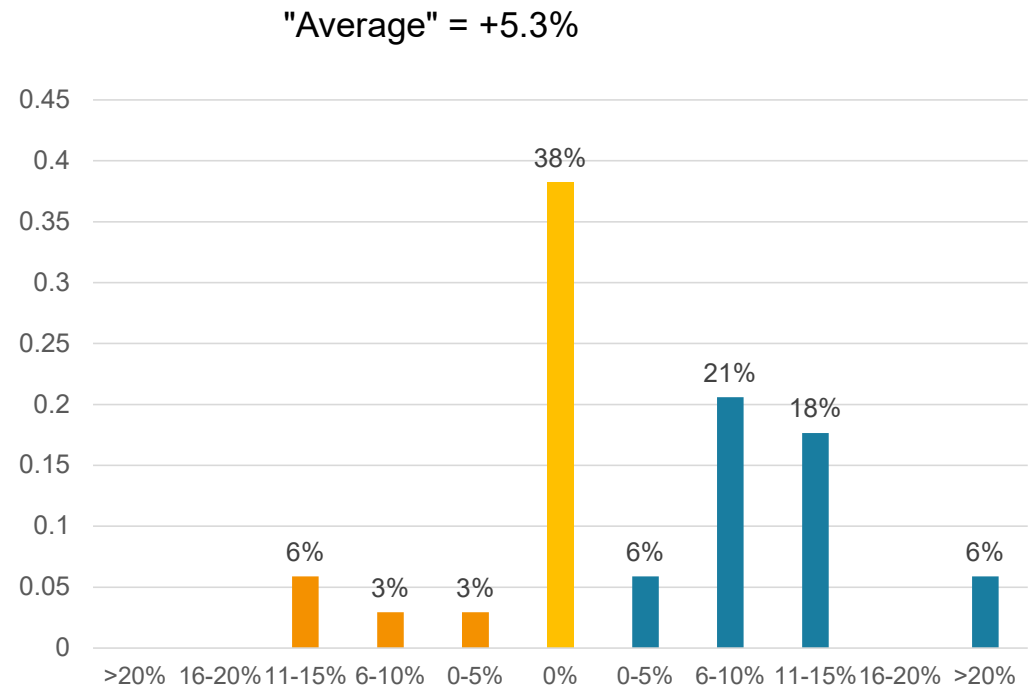
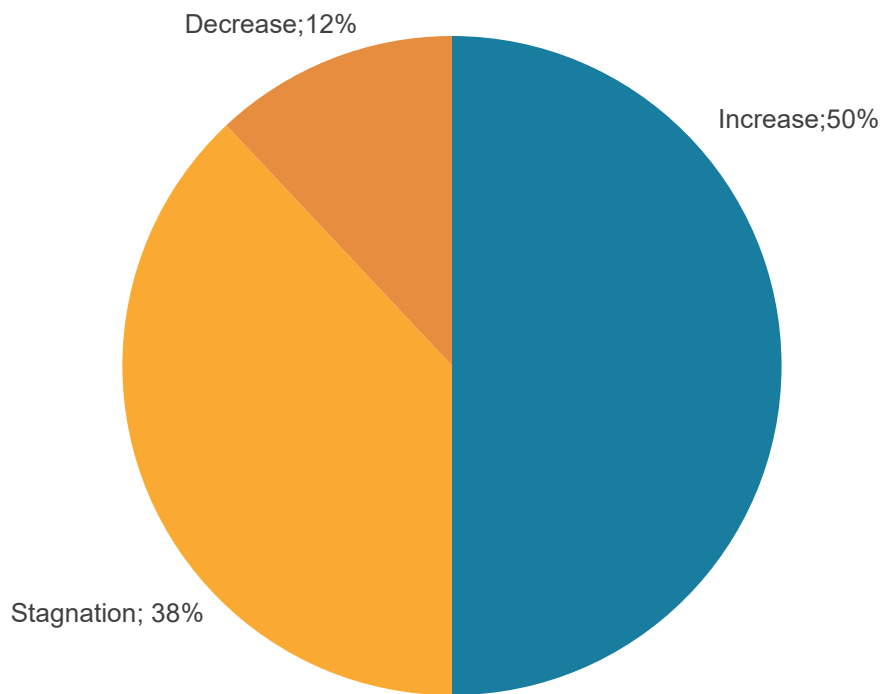
Expectations for domestic order intake in 2025

(2025 compared to 2024)



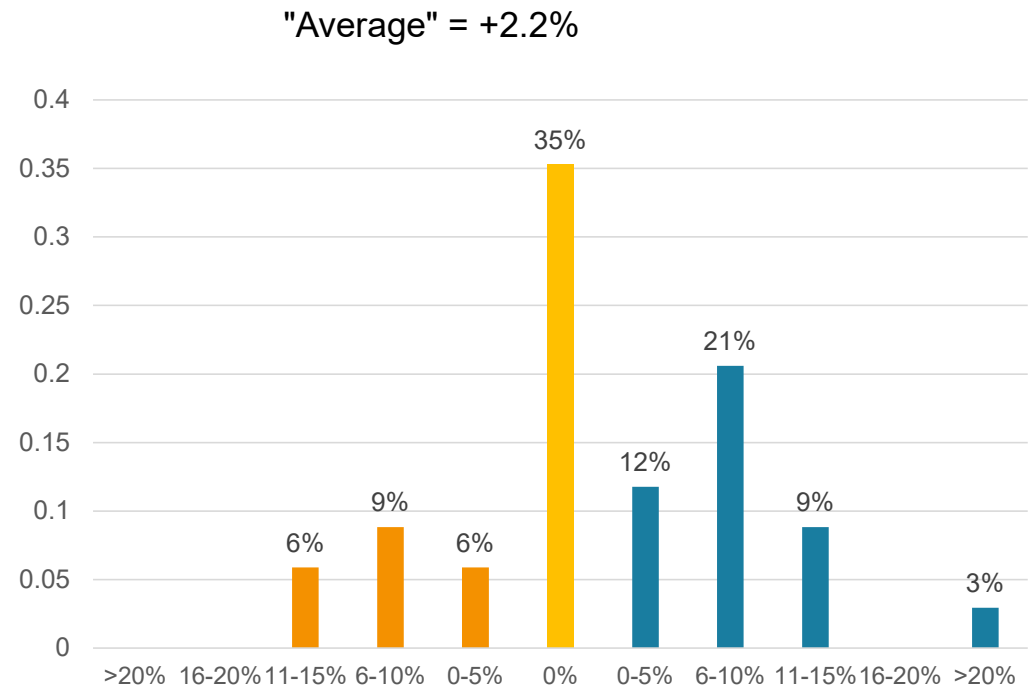
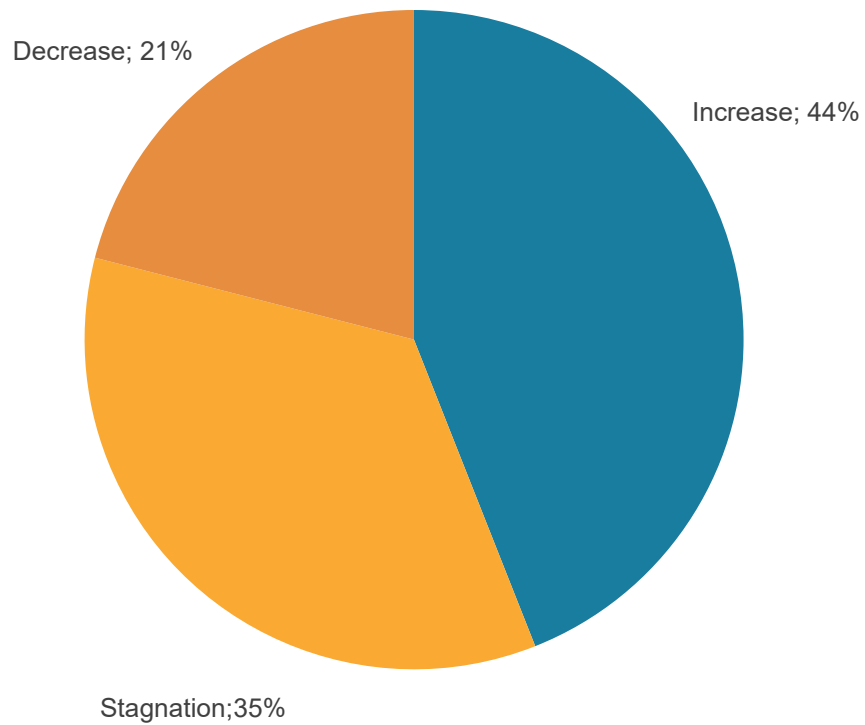
N=34, Source: Own survey of member companies

Expectations for incoming orders abroad in 2025 (2025 compared to 2024)



N=34, Source: Own survey of member companies

Expected sales in 2025 (2025 compared to 2024)



N=34, Source: Own survey of member companies

Markets (countries) will particularly support incoming orders in 2025?



N=25, Source: Own survey (survey of member companies)

Which markets (countries) will be particularly difficult in 2025?



Germany

EU

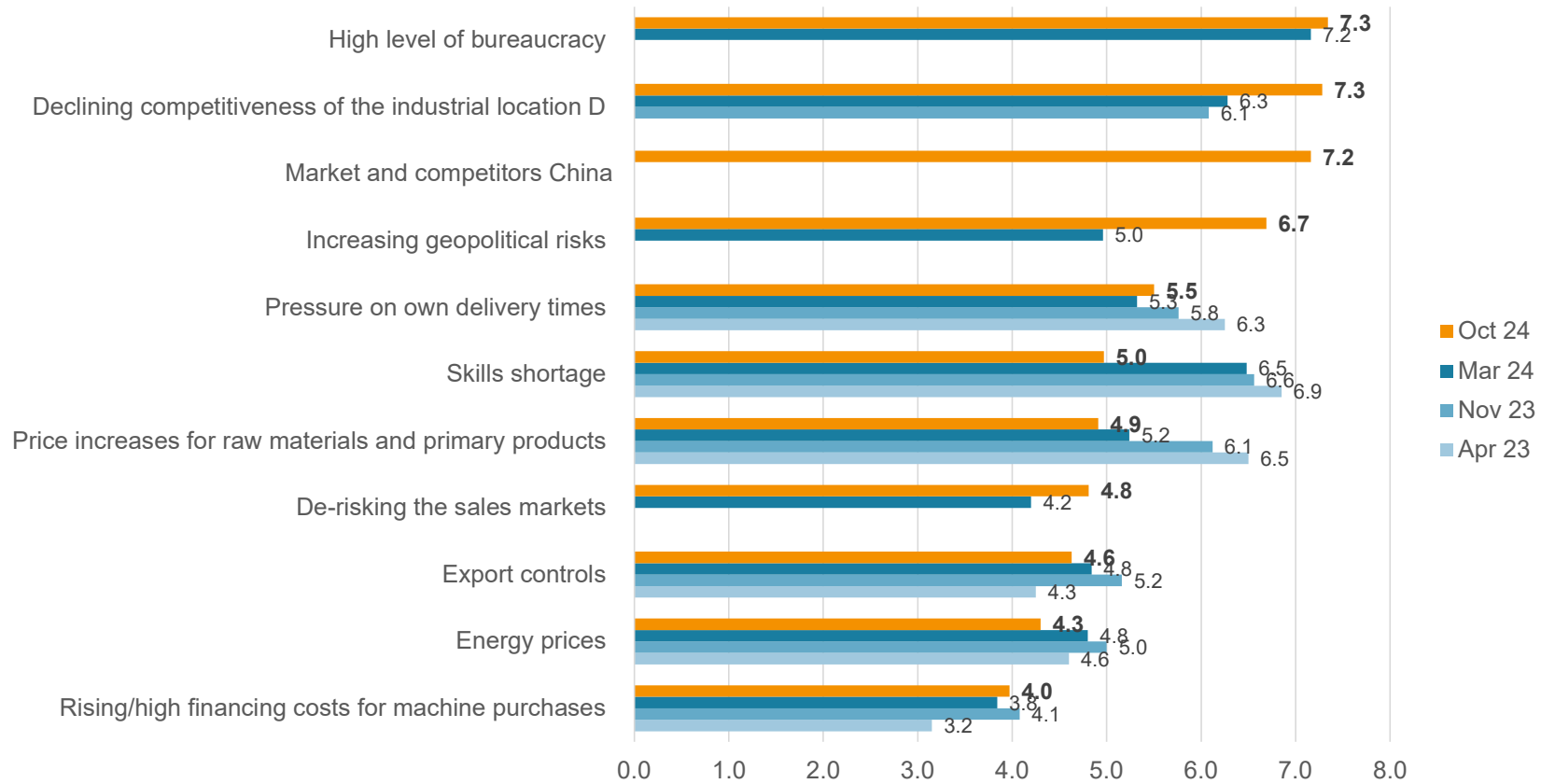
USA

China

N=25, Source: Own survey (survey of member companies)

Challenges for the laser industry 2024/2025

(0 = not affected at all, 10 = significantly affected)

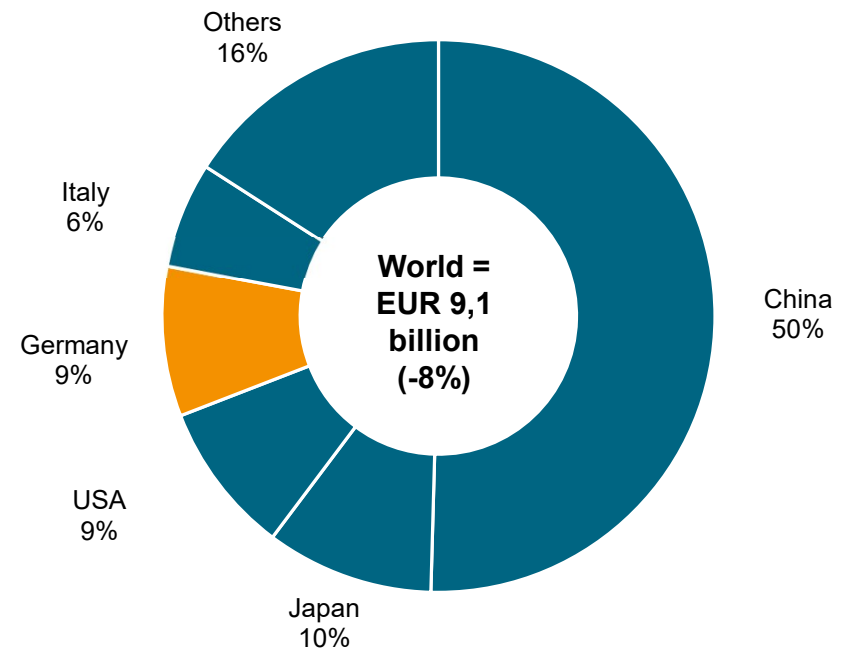
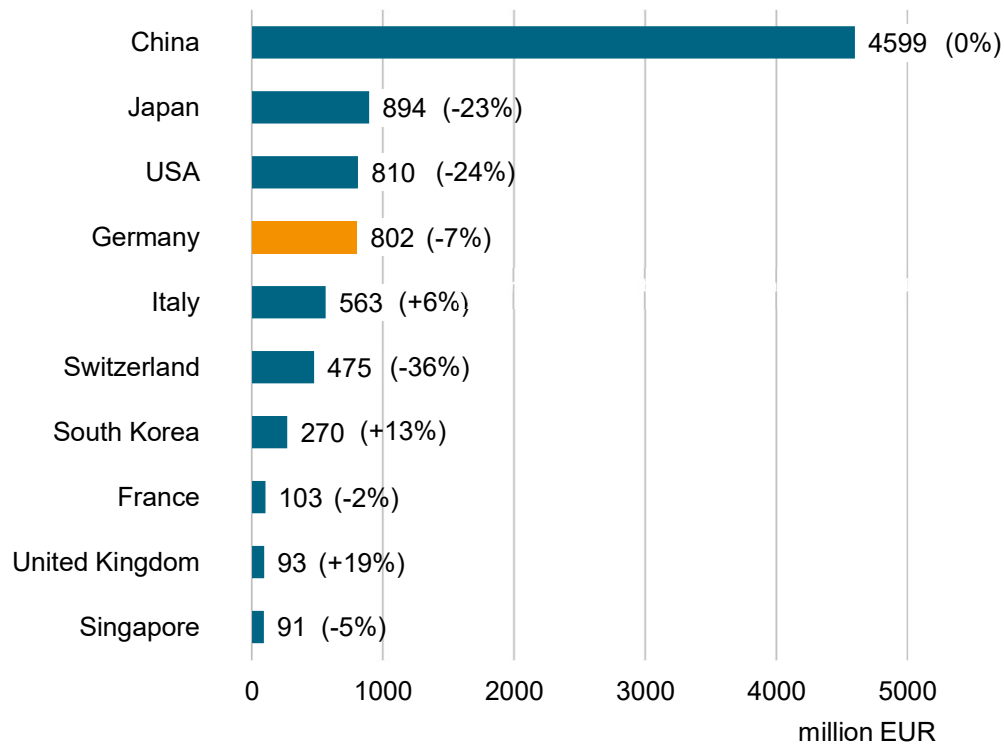


N=32, Source: Own survey of member companies

World production laser cutting machines*

China accounts for half of the world production

Top 10 producers of laser machines 2024 (estimate)

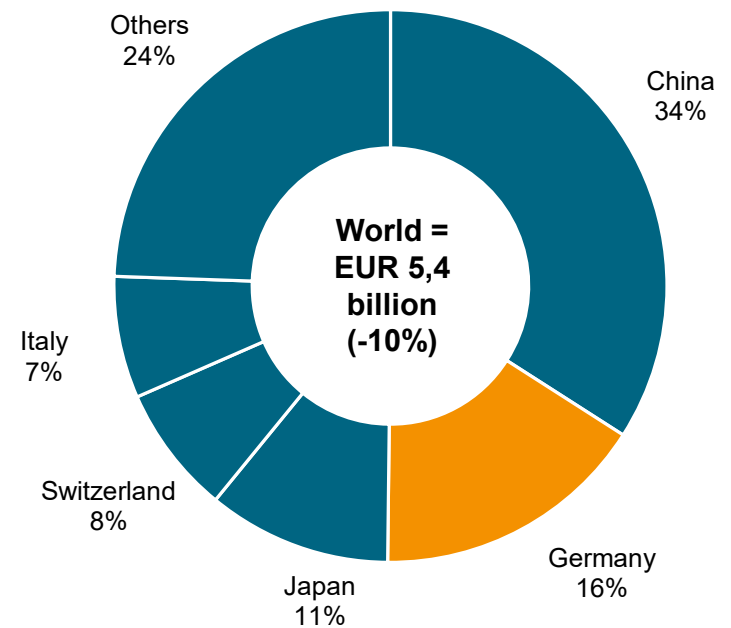
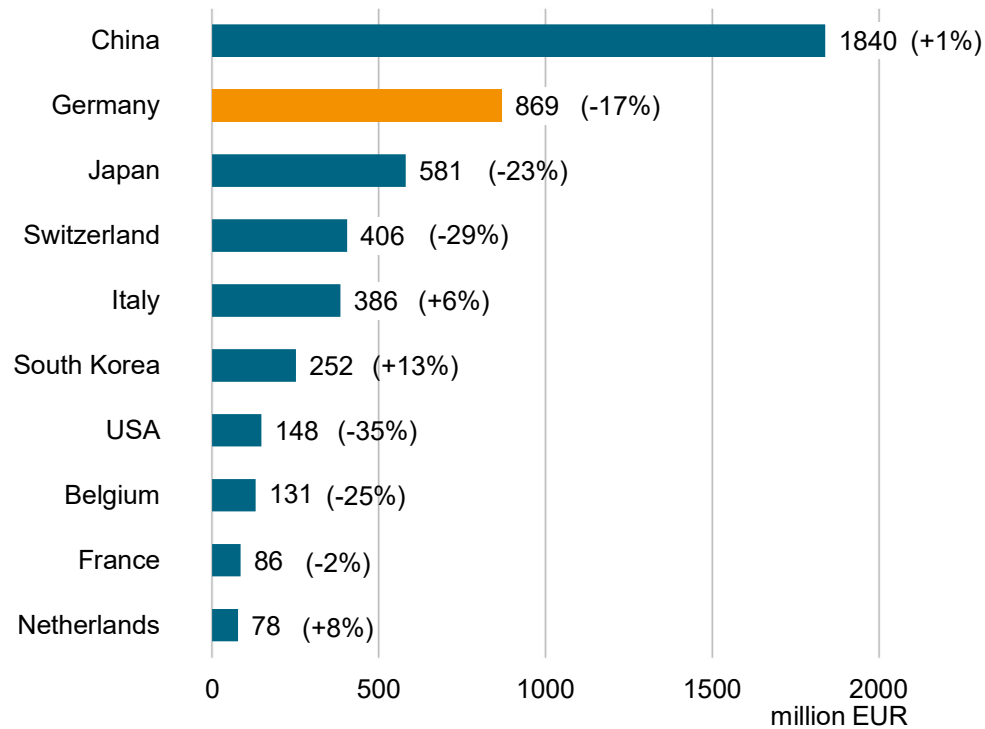


* Note: laser machines = commodity code 845611 of the foreign trade nomenclature
Main focus laser cutting, but also including drilling, engraving etc, not included: welding, testing, wafer stepper, annealing.
Sources: International foreign trade statistics, associations, VDW, VDMA

World export laser cutting machines*

Germany second biggest exporter, behind China and ahead of Japan

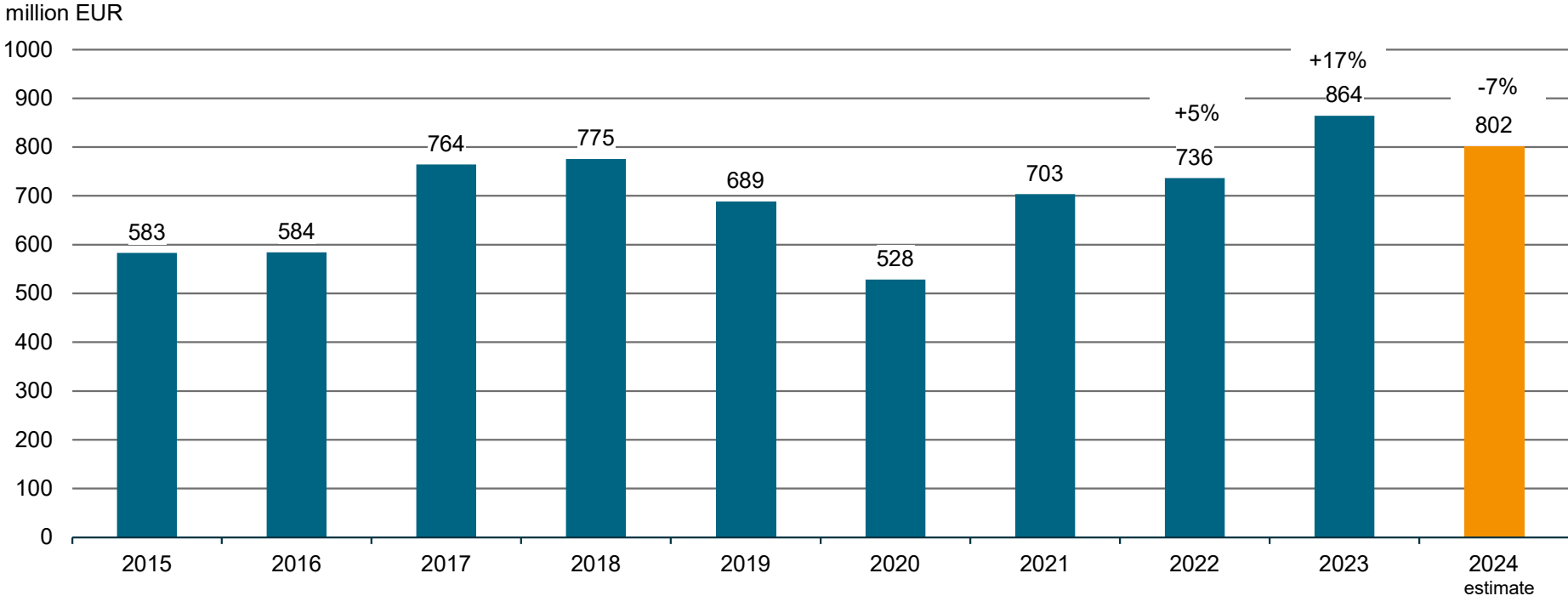
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German laser cutting machine production*

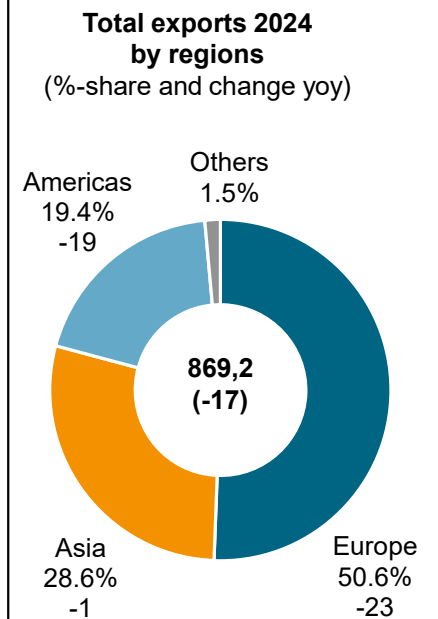
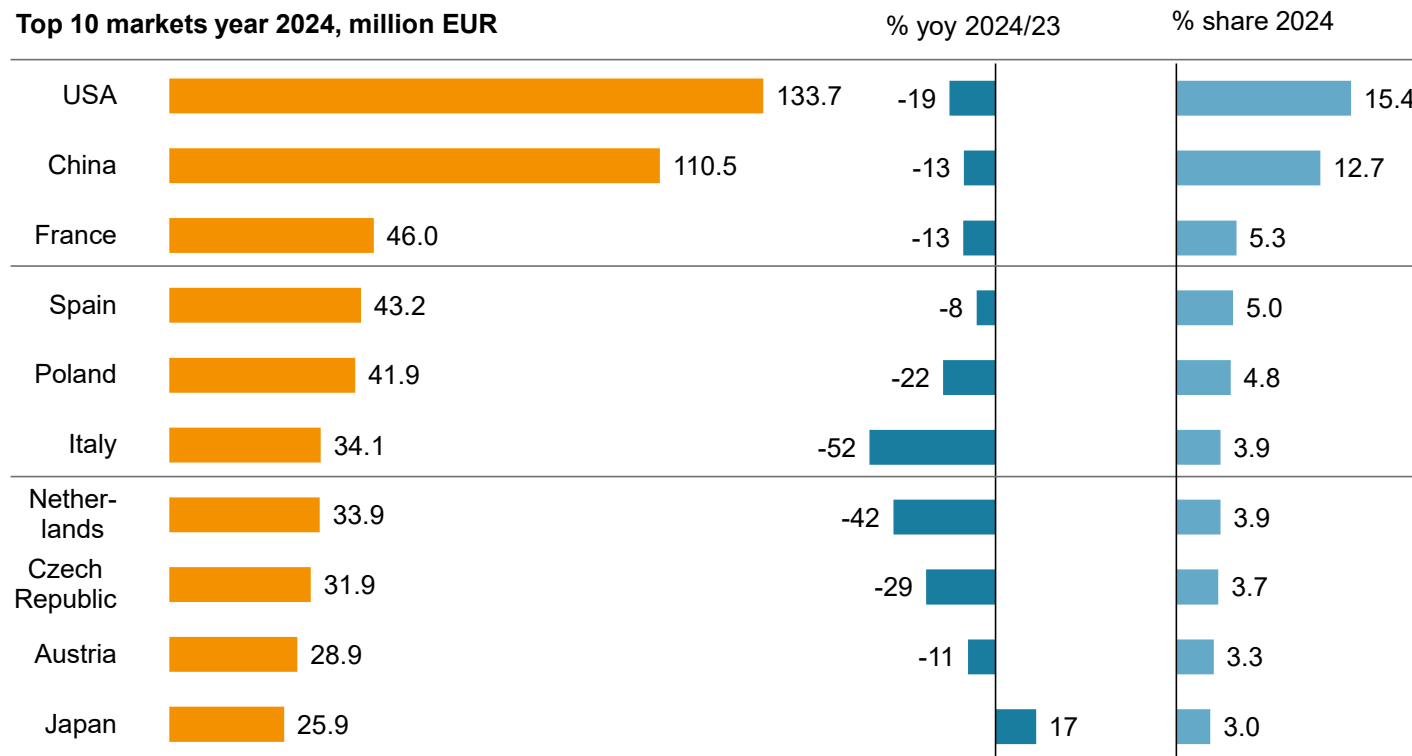
Decline in 2024 after record level in the previous year



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German laser cutting machine exports by markets*

Strong decline in exports, USA market no. 1



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