



ECONOMICS AND STATISTICS

Research and Innovation 2025

Member survey

AUGUST 2025, JANINE HEIMANN

ADVANCING EUROPE'S MACHINERY INDUSTRY

On average, 83 percent of R&D expenditure is incurred domestically

Among participating VDMA members, the R&D ratio* averaged 6.5 percent in 2024. On average, 83 percent of R&D expenditure is incurred domestically (84 percent among companies headquartered in Germany). This share decreases with increasing company size. More than half of companies with up to 499 employees spend 100 percent of their R&D expenditure domestically, while this is true for one in four companies with 500–999 employees and one in eight companies with at least 1,000 employees.

What percentage of your company's R&D expenditure is incurred domestically (as opposed to abroad)?

(n = 288, of which 260 are headquartered in Germany)

What was your R&D ratio in 2024? (n = 272)*

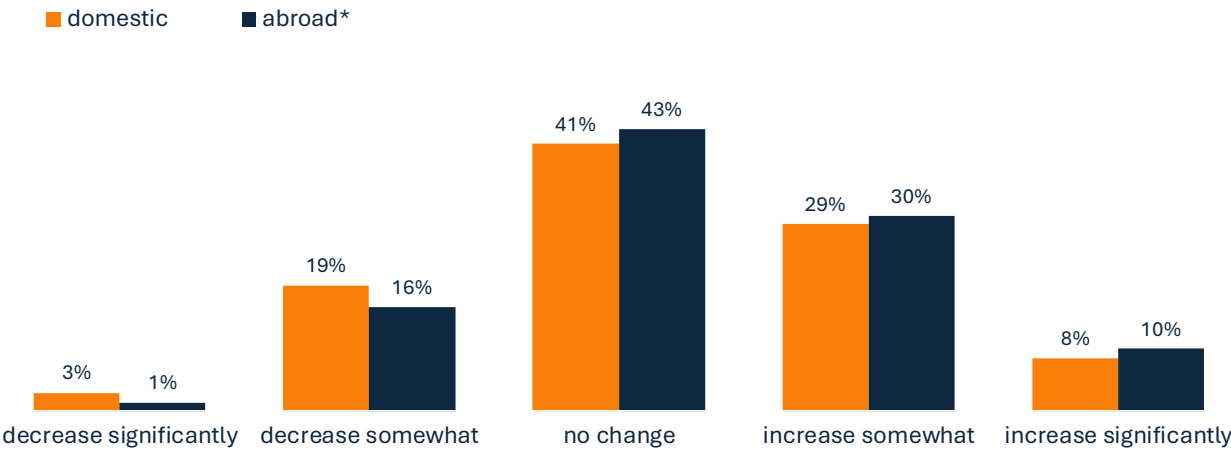
Number of employees	Domestic R&D expenditure	R&D ratio
up to 99	91%	
100 - 499	85%	
500 – 999	80%	
at least 1,000	74%	
Total	83%	6.5%

* R&D ratio: share of R&D expenditure in sales; only companies active in R&D

R&D expenditure stable in 2025 despite difficult environment

41 percent of companies expect domestic R&D spending to remain stable in 2025, while 37 percent expect higher spending and only 22 percent expect lower spending. The outlook for R&D spending abroad is somewhat more optimistic overall. Companies with 1,000 or more employees in particular are significantly more positive about the development of R&D spending abroad than at home.

How do you expect your R&D expenditure to develop in 2025 compared to 2024? (n = 286)

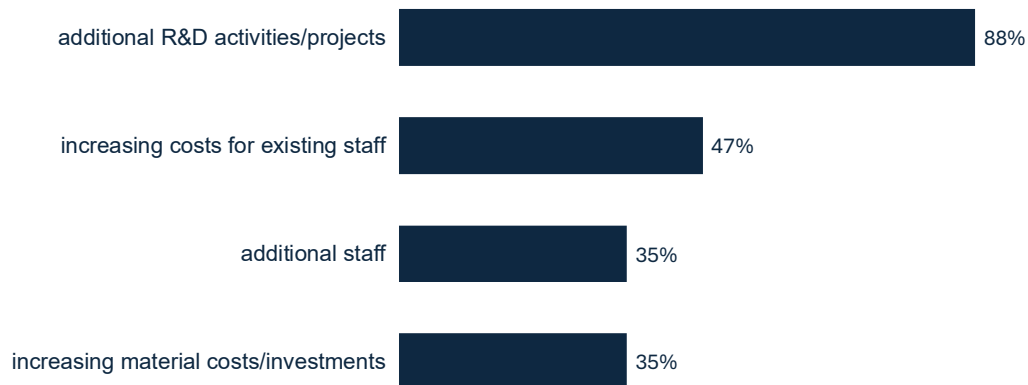


* only companies that conducted R&D abroad in 2024

R&D expenses are rising primarily due to additional R&D activities/projects

By far the most important reason for rising R&D expenditure in 2025 is additional R&D activities/projects. However, just under half also attribute the rising expenditure to growing costs for existing personnel. A good third cite the hiring of additional personnel and rising costs for materials and investments as reasons for the increase in expenditure.

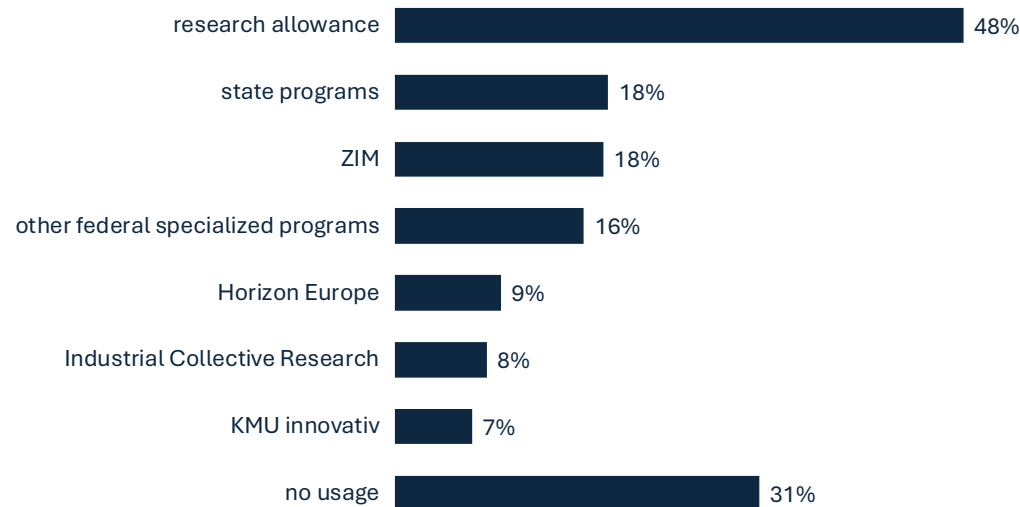
Your domestic R&D expenditure is expected to increase this year. What are the main reasons for this? Multiple selections possible (n = 103)



Every second company already uses research allowance

Two out of three companies use public funding programs for R&D. Tax incentives for research are by far the most popular, with a usage rate of 48 percent. By comparison, the usage rate for research allowance was 37 percent in 2024. Companies with 250 to 499 employees make the most use of this measure.

Has your company used public funding programs for R&D in the past three years? If so, which of the following public funding programs has your company used? Multiple answers possible (n = 244; only companies headquartered in Germany)



Strengthen European patent applications by reducing bureaucracy

According to survey participants, the best way to counteract the declining share of EU patents in global mechanical engineering patent applications is to reduce bureaucracy and lower location costs.

The EU's share of global mechanical engineering patent applications has fallen in relative terms in recent years. Why do you think this is, and what needs to be done to counteract this trend? (n = 234)

- Reduce bureaucracy to free up resources for R&D, especially in economically challenging times; also simplify the patent application process itself
- Reduce location costs, especially non-wage labor costs and taxes
- Strengthen public interest in engineering
- Increase attractiveness for high potentials from abroad
- Improve framework conditions for R&D funding measures
- Strengthen focus on digitalization
- Promote willingness to innovate and take risks

Funding processes need to be greatly simplified and made less bureaucratic. It is unacceptable that funding applications can only be submitted with the help of a service provider.

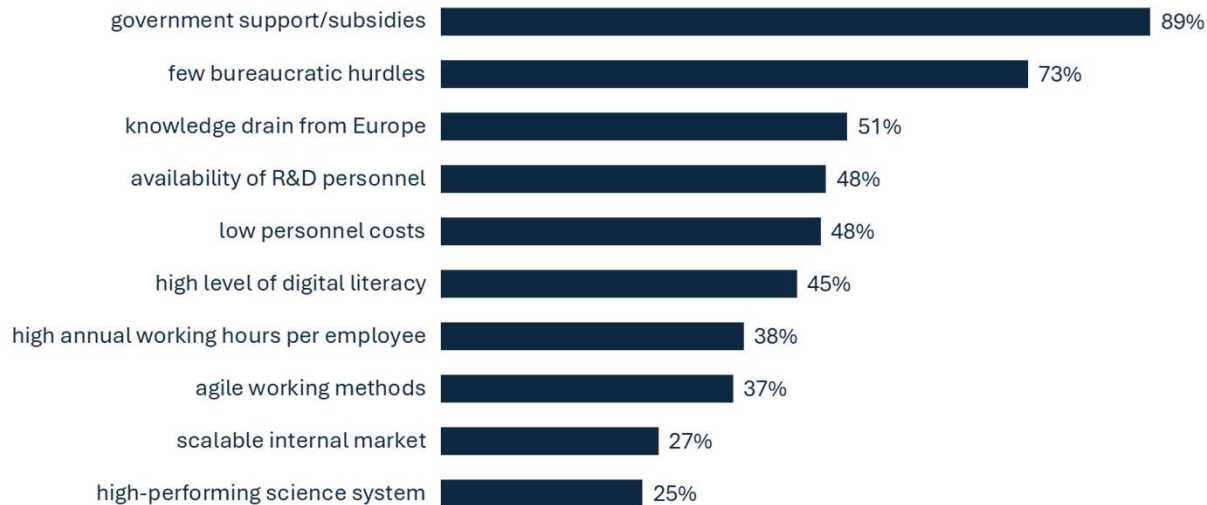
Promote an innovation-friendly climate and reduce bureaucracy – from the EU level to politics and companies.

Reducing bureaucracy could help to free up more time to tackle important ideas for our future.

Many attribute China's innovative strength to government support and subsidies

The increasing innovative strength of Chinese competitors is primarily attributed to government support measures and subsidies, as well as a comparatively lower bureaucratic burden.

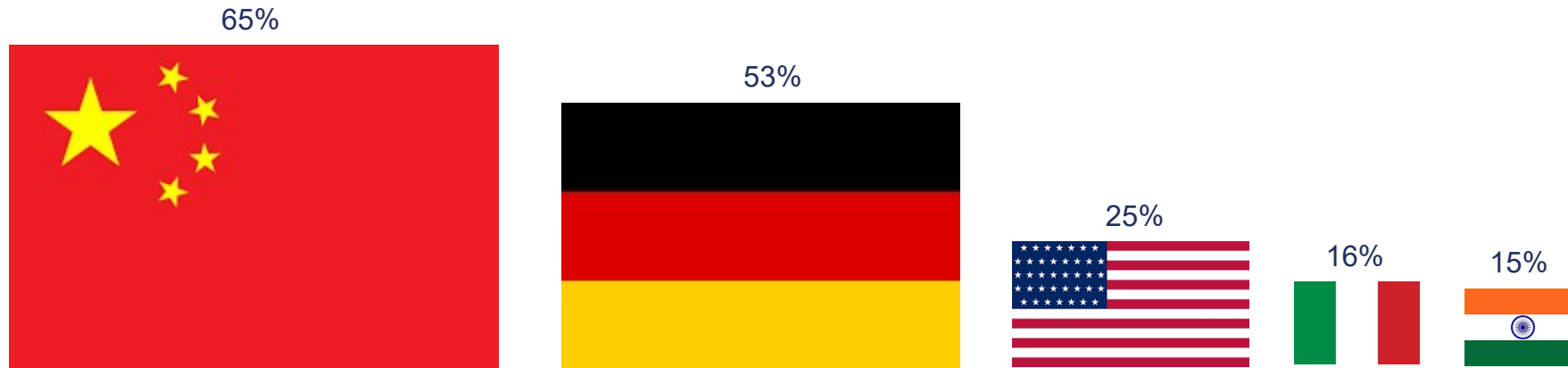
Chinese companies in particular have become more innovative in recent years. What do you think are the main reasons for this? Multiple selections possible (n = 301)



Main competition in terms of innovative strength now from China

Most companies now see China as their main competitor in terms of innovative strength, followed by Germany. In 2023 and 2024, the situation was reversed. While most smaller companies in particular still saw Germany as their main competitor in the last two years, China now ranks first for them as well. Competition from the US – in third place – is primarily relevant for companies with 1,000 or more employees.

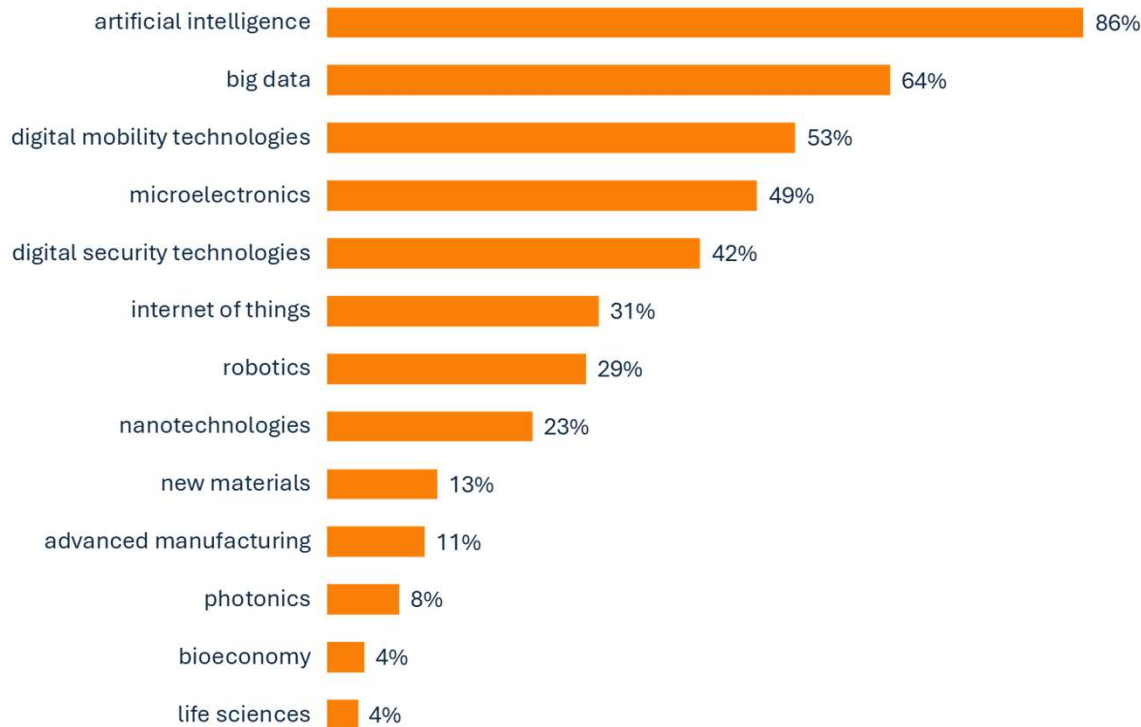
In which country or countries do you see your main competition in terms of innovative strength? Multiple selections possible (n = 296)*



**The options were: China, Denmark, Germany, France, Great Britain, India, Italy, Japan, Korea, Netherlands, Austria, Sweden, Switzerland, USA, Other (free text field)*

Threatening dependencies in key technologies

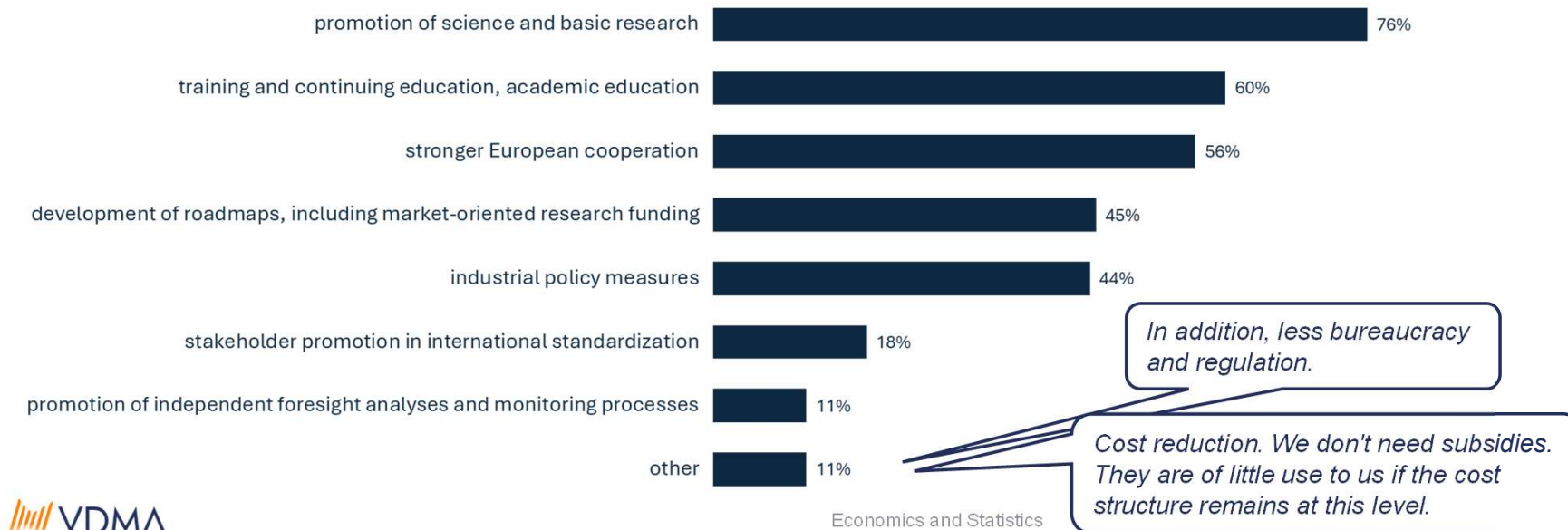
In which key technologies do you see a threatening dependency on non-European countries? Multiple selections possible (n = 285)



Strengthen key technologies by promoting education and science

For most respondents, promoting science and basic research, training and continuing education, and academic education are among the most important government measures for strengthening key technologies. The majority also support stronger European cooperation when it comes to key technologies.

Which government measures do you most support to strengthen key technologies? Multiple selections possible (n = 284)



CONTACT

FOR FURTHER INFORMATION, PLEASE CONTACT:

Janine Heimann

VDMA Economics and Statistics
Lyoner Straße 18
60528 Frankfurt

+49 69 6603-1382
janine.heimann@vdma.eu