THE USE OF ADVANCED TECHNOLOGIES IN INDUSTRIAL ENTERPRISES IN 2025

18.11.2026

42.1%

The share of industrial enterprises using advanced technologies in 2025

In 2025, 42.1% of industrial enterprises reported using advanced technologies, among which the largest share was held by entities employing 250 people or more (96.4%).

The use of advanced technologies

In 2025 the highest share of enterprises using advanced technologies was recorded in section *Electricity, gas, steam and air conditioning supply* (78.5%). Taking into account the number of persons employed, units with 250 or more persons employed had the largest (96.4% of industrial enterprises).

The use of advanced technologies was reported by 78.5% of entities classified under the Electricity, gas, steam and air conditioning supply section, which was the highest percentage among industrial enterprises

Chart 1. Industrial enterprises using advanced technologies in 2025 by NACE sections (% of surveyed enterprises)

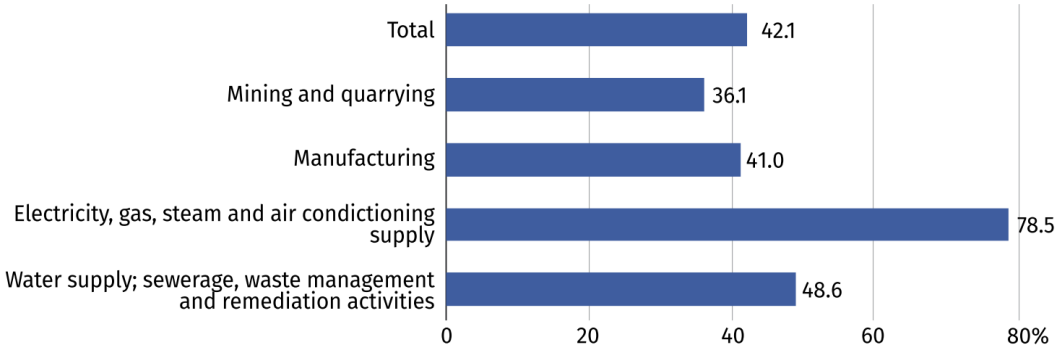
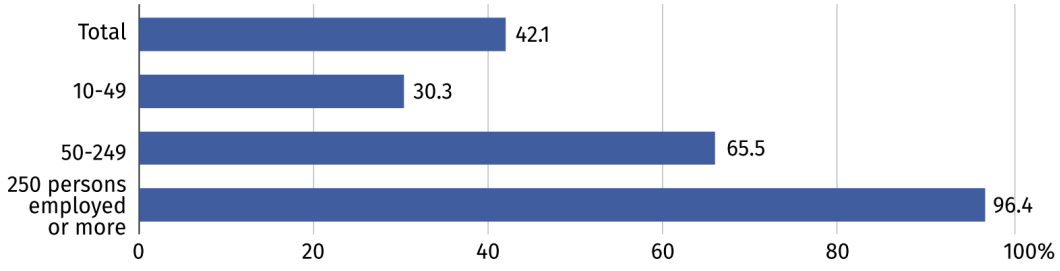


Chart 2. Industrial enterprises using advanced technologies in 2025 by number of persons employed (% of surveyed enterprises)



Purposes of using advanced technologies

In 2025, among entities that used Cloud Computing in their activities, the most frequently cited reason was increasing the security level of the company's IT systems (48.7%).

Enterprises using the Internet of Things, Big Data analysis or Artificial Intelligence most often used them to increase productivity/process of providing services (49.2%, 60.5%, and 38.0%, respectively).

Improving the quality of manufactured products/services was the dominant objective among enterprises using industrial automation (74.7% of enterprises using this technology).

Table 1. Purposes of using selected advanced technologies in industrial enterprises in 2025 (% of enterprises using the specified technology)

Purposes	Enterprises using				
	Cloud Computing	Internet of Things	Big Data analyses	Artificial Intelligence	Industrial automation
Marketing, advertisement	27.0	19.0	44.4	34.3	.
Production scalability	13.6	30.5	48.5	16.4	.
Process integration (e.g., production, storage and logistics)	43.9	44.3	50.2	28.3	25.9
Increasing productivity/ process of providing services	18.6	49.2	60.5	38.0	.
Increasing the efficiency of design processes and/ or computer simulations of a good/service	9.2	.	.	.	.
Increasing the security level of the enterprise's IT systems	48.7	39.6	40.1	28.8	.
Increasing the level of flexibility in responding to customers' needs	19.8	16.8	36.9	24.4	.
Generating new revenue streams and new business models	9.6	5.8	25.9	9.9	.
Exchange of information directly with product purchasers/improving the communication process with counterparties/customers	33.0	20.1	30.0	23.3	.
To obtain better information at different organizational levels of the entity	.	30.2	39.8	31.8	.

Table 1. Purposes of using selected advanced technologies in industrial enterprises in 2025 (% of enterprises using the specified technology) (cont.)

Purposes	Enterprises using				
	Cloud Computing	Internet of Things	Big Data analyses	Artificial Intelligence	Industrial automation
To obtain better information at different organizational levels of the entity, the ability to track the current operating status	30.1	.	.	.	.
The ability to track (including spying) the current operating of a good or service	.	40.2	39.1	21.5	.
Implementation of new service models for a good and/or service	.	17.0	19.5	.	.
Improving the quality of manufactured products/services	.	.	.	.	74.7
Reduction of production time/process of providing services, reduction of downtime	.	.	.	.	67.5
Reduction of costs	.	.	.	.	55.5
Increasing efficiency	.	.	.	.	65.6

Benefits of using advanced technologies

Among enterprises using Cloud Computing in their activities, the greatest benefit of its use was improving data security indicated by 77.0% of enterprises.

For entities using the Internet of Things, the most important was the ability to increasing productivity (62.9%) and reduction of production time/process of providing services, reduction of downtime (61.1%).

Enterprises using Big Data analysis indicated the most important benefit from using this technology as improving product quality (73.6%) and, similarly to enterprises using the Internet of Things – increasing productivity (69.8%).

Improving product quality was also very important for units using Artificial Intelligence – cited by 40.8% of them, however the greatest advantage for the firms using it was increasing productivity (49.5%).

Table 2. Benefits of using selected advanced technologies in industrial enterprises in 2025 (% of enterprises using the specified technology)

Benefits	Enterprises using			
	Cloud Computing	Internet of Things	Big Data analyses	Artificial Intelligence
Reduction of costs	31.2	51.7	63.3	39.5
Reduction of production time/ process of providing services, reduction of downtime	44.3	61.1	62.5	35.2
Increasing productivity	55.3	62.9	69.8	49.5
Improving the quality of manufactured products/services	29.8	58.1	73.6	40.8
Improving health and safety at work	.	51.4	.	.
Generation of value added	.	29.2	45.4	29.3
Improving data security	77.0	.	59.4	35.7

The implementation of industrial automation solutions had the greatest effect on staffing changes among industrial enterprises using advanced technologies

Staff changes

The use of advanced technologies in industrial enterprises experienced staffing changes, which involved either a reduction or an increase in the number of positions in certain departments, as well as the hiring of new, highly qualified specialists.

The reduction in the number of positions was highest among entities using industrial automation (13.0%), while this trend was least common among enterprises using Cloud Computing (2.5%).

An increase in the number of positions was most common among enterprises that had implemented industrial automation (9.2%), while the smallest share of enterprises indicating this change in staffing was recorded in cases where Big Data analytics were used (1.8%).

The highest share of entities hiring of new, highly qualified specialists with the use of particular technologies was recorded among enterprises using industrial automation (12.0% of entities using this technology), and the lowest among enterprises using Artificial Intelligence (3.4%).

Table 3. Staff changes in industrial enterprises related to the use of a selected advanced technology in 2025 (% of enterprises using the specified technology)

Staff	Enterprises using				
	Cloud Computing	Internet of Things	Big Data analyses	Artificial Intelligence	Industrial automation
Reduction in the number of positions in certain departments of the enterprise	2.5	4.5	5.1	4.4	13.0
Increase in the number of positions in certain departments of the entity	3.7	4.6	1.8	3.4	9.2
Hiring of new, highly qualified specialists	4.2	5.8	6.4	3.4	12.0

Methodological notes

Survey covered the representative sample of enterprises with more than 9 persons employed and the main kind of activity classified as industrial according to the NACE Rev. 2 (i.e., sections B, C, D, E). Data are published biennially.

An enterprise using advanced technologies is one that in the period under review used at least one of the surveyed technologies, i.e. Cloud Computing, Internet of Things (IoT), Big Data analysis, Artificial Intelligence (AI) or industrial automation.

Compared to the previous edition of the survey, the methodology for calculating the cloud computing use indicator has changed. The question was narrowed down to the advanced use of this technology. Industrial automation was included in the survey for the first time in 2025. Due to changes in the survey methodology, the results presented are not fully comparable with the previous wave of the survey.

The purposes and benefits presented in the survey were tailored to the specifics of each technology covered. Therefore, the scope of the questions varied depending on the technology. The missing data symbol in the form of a dot (•) indicates that a given area (purpose or benefit) was not applicable to a specific technology and there was no need to collect data for it.

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Related information

The use of advanced technologies in industrial enterprises in the year 2023

Terms used inn official statistics

Cloud Computing

Internet of Things

Artificial Intelligence

Information Society