11% of Austrian enterprises use artificial intelligence

Information and communication sector leading in terms of usage

Vienna, 2023-10-17 – In Austria, more and more enterprises are using artificial intelligence (AI). In 2023, 11% of enterprises use AI technologies, compared to 9% two years ago. This is shown by the results of a survey conducted by Statistics Austria on the use of information and communication technologies (ICT) in enterprises.

"The rapid development momentum of artificial intelligence is also gradually reaching Austrian companies. Currently, 11% of enterprises in Austria use artificial intelligence, which means that the share has grown by two percentage points since 2021. At that time, Austria's 9% of companies using AI was in line with the EU average. Large companies in particular are focusing on AI: One in three enterprises with more than 250 employees is already using technologies based on artificial intelligence in its operations," explains Tobias Thomas, Director General of Statistics Austria.

Enterprise size as key factor for AI use

The larger a company, the more likely it is to use AI technologies (see table 1). 9% of small enterprises (10 to 49 employees), 17% of medium enterprises (50 to 249 employees) and 35% of big enterprises (250 or more employees) use intelligent technologies.

The economic sector, on the other hand, plays a minor role when it comes to the use of AI. 9% of enterprises in the production sector use AI technologies, while 12% of enterprises in the service sector do so as well. Nevertheless, there are major differences between the economic branches: AI systems are most common among enterprises in the information and communication sector (37%). By contrast, they are used least frequently in construction as well as in accommodation and foodservice activities (each 4%).

AI for text mining most popular

Of the AI-using enterprises, more than half (54%) use artificial intelligence primarily for text mining, 43% use technologies for data analysis based on machine learning and 32% use AI for process automation or assisted decision-making. The mentioned AI technologies are used more frequently in enterprises in the service sector than in the production sector (see table 2).

Barriers to the adoption of AI

Although the use of artificial intelligence is increasing in the Austrian corporate landscape, it is not yet an issue for the majority of enterprises (88%). Among enterprises that have already considered the use of AI but have not (yet) implemented AI technologies, the reasons given are a lack of expertise (7%), legal uncertainties about AI use, incompatibility with existing equipment and difficulties with the availability or quality of the necessary data (5% each of enterprises without AI use; see table 3).

For detailed results on the use of ICT in enterprises please refer to our website.

Table 1: Enterprises using technologies based on artificial Intelligence in 2021 and 2023

Characteristic	Enterprises using technologies based on artificial Intelligence (AI) [1]	
	2021	2023
	in % of all enterprises	
Total	**8.8**	**10.8**
Industry (ÖNACE 2008)		
Production sector	**6.6**	**8.5**
Manufacturing (10–33)	9.6	12.3
Electricity, gas, steam and air conditioning supply, water supply, sewerage, waste management and remediation activities (35–39)	12.1	14.0
Construction (41–43)	3.1	4.3
Service sector	**9.9**	**11.8**
Wholesale and retail trade; repair of motor vehicles and motorcycles (45–47)	6.9	8.3
Transportation and storage (49–53)	7.0	8.3
Accommodation and food service activities (55, 56)	3.3	3.6
Information and communication (58–63)	30.3	37.0
Real estate activities; professional, scientific and technical activities (68–75)	18.6	23.5
Administrative and support service activities; Repair of computers and communication equipment (77–82, 95.1)	6.5	7.7
Size		
10 to 49 employees	7.1	8.9
50 to 249 employees	14.6	16.9
250 or more employees	31.7	35.2

S: STATISTICS AUSTRIA, Survey on ICT usage in enterprises 2021 and 2023. – Data collection: February to July 2021 and 2023. – Reference period: Time of data collection.
1) Artificial intelligence refers to technologies that imitate intelligent behavior and have a degree of autonomy to perform specific tasks.

Table 2: Types of technologies based on Artificial Intelligence used in 2023

Technology based on Artificial Intelligence (AI)[1]	Total	Economic sector		Size		
		Produc-tion sector	Service sector	10 to 49 employees	50 to 249 employees	250 or more employees
	in % of enterprises using AI technologies					
Text mining	54.3	40.9	58.8	55.5	51.2	53.2
Machine learning for data analysis	42.7	37.7	44.3	38.1	51.1	57.3
Process automation or assisted decision-making	32.3	28.5	33.6	28.5	36.9	50.0
Speech recognition	28.4	24.1	29.8	30.8	23.8	20.9
Natural language generation	23.3	16.5	25.6	24.5	20.0	21.4
Image recognition and processing	22.7	25.2	21.9	21.7	21.8	32.5
Autonomously moving machines or vehicles	9.3	12.0	8.4	6.1	14.2	21.1

S: STATISTICS AUSTRIA, Survey on ICT usage in enterprises 2023. – Data collection: February to July 2023. – Reference period: Time of data collection.
1) Artificial intelligence refers to technologies that imitate intelligent behavior and have a degree of autonomy to perform specific tasks.

Table 3: Barriers to the adoption of technologies based on Artificial Intelligence in 2023

Reason	Total	Economic sector		Size		
		Production sector[1]	Service sector	10 to 49 employees	50 to 249 employees	250 or more employees
		in % of enterprises not using AI technologies[3]				
Without consideration of AI-based technologies	87.9	89.9	86.9	89.4	80.8	69.1
Lack of internal expertise	7.2	6.9	7.4	6.2	12.0	18.8
Legal uncertainties	5.2	3.9	5.8	4.7	7.4	10.5
Incompatibility with existing equipment, software or systems	5.0	4.7	5.2	4.3	8.3	13.6
Difficulties with availability or quality of the necessary data	5.0	4.5	5.3	4.2	8.6	17.0
Data privacy concern	4.6	3.5	5.2	4.2	6.6	10.8
Costs	3.7	3.4	3.8	3.3	5.2	8.4
Lack of benefit	3.0	3.2	3.0	2.8	4.3	6.8
Ethical concerns	2.5	2.0	2.8	2.3	3.6	4.6

S: STATISTICS AUSTRIA, Survey on ICT usage in enterprises 2023. – Data collection: February to July 2023. – Reference period: Time of data collection.
1) Economic sectors (ÖNACE 2008) 10–33, 35–39 and 41–43.
2) Economic sectors (ÖNACE 2008) 45–47, 49–53, 55, 56, 58–63, 69–75, 77–82 and 95.1.
3) Artificial intelligence refers to technologies that imitate intelligent behavior and have a degree of autonomy to perform specific tasks.

Information on methods: The results are derived from the survey on information and communication technology (ICT) usage in enterprises 2023. On the basis of Regulation (EU) 2019/2152 and Implementing Regulation (EU) 2022/1344 for the reference year 2023, all EU member states are obligated to conduct this survey with a Europe-wide uniform questionnaire and standardised methodology. Comparative figures for all EU countries are expected to be published by Eurostat in January 2024.

Around 6 950 enterprises with ten or more employees (in manufacturing; electricity, gas, steam and air conditioning supply, water supply, sewerage, waste management and remediation activities; construction; wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities; information and communication; real estate activities; professional, scientific and technical activities; administrative and support service activities; repair of computers and communication equipment) participated in the survey from February to July 2023.