

Innovation activities of enterprises in Poland in the years 2020–2022

30.10.2023

↑ **36.6%**

An increase in expenditures on innovation activities in industrial enterprises

↑ **32.8%**

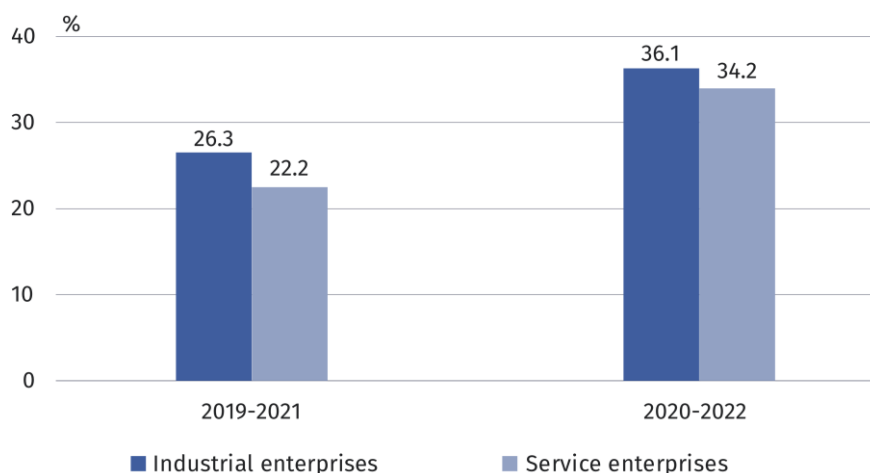
An increase in expenditures on innovation activities in service enterprises

In the years 2020–2022, 36.1% of industrial enterprises and 34.2% of service enterprises performed innovation activities. Expenditures on innovation activities incurred in 2022 in industrial enterprises amounted to PLN 26011.7 million, and in service enterprises – PLN 29689.1 million. In 2022, the share of revenue from sales of new or improved products introduced to the market between 2020 and 2022 in total revenues from sales in industrial enterprises was 6.9%, and in service enterprises – 2.7%.

An innovation-active enterprise is one that in the period under review introduced at least one product or business process innovation or carried out in that period at least one innovation project, which was interrupted or abandoned during the period under review (not successfully completed), has not been completed by the end of that period (i.e. is ongoing) or has been completed, but the innovation has not yet been implemented.

In the years 2020–2022, the share of innovation-active enterprises in the industrial enterprise sector amounted to 36.1% and in services 34.2%.

Chart 1. Innovation-active enterprises

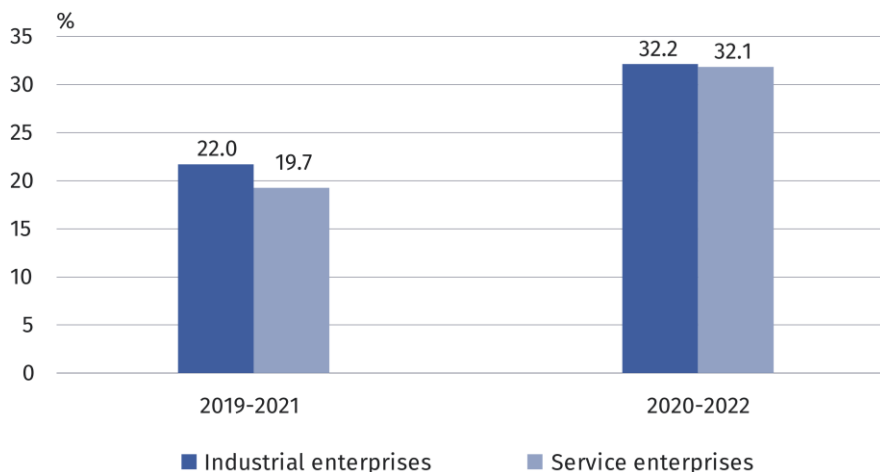


An innovative enterprise is one that has introduced one or more innovations during the observation period.

In the years 2020–2022, 32.2% of industrial enterprises and 32.1% of service enterprises introduced innovations (new or improved products or business processes), i.e. more than in the years 2019–2021, when innovations were introduced by 22.0% and 19.7% of surveyed enterprises, respectively.

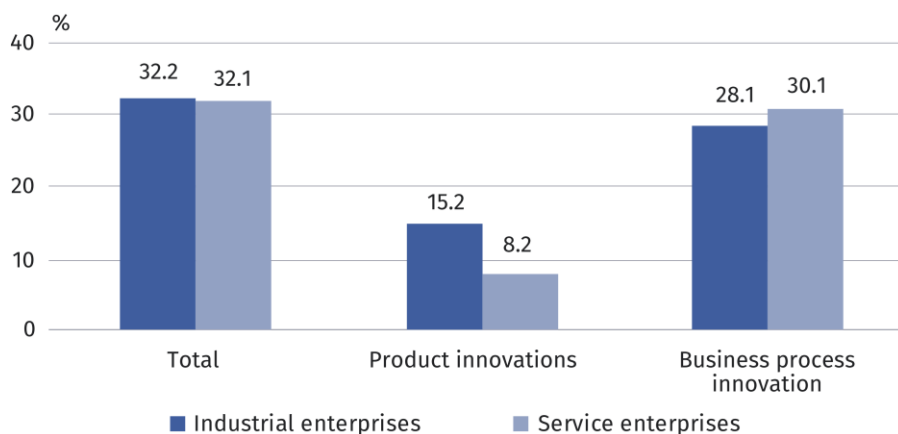
The share of enterprises that introduced innovations in the years 2020–2022 was at similar level in industry and in services

Chart 2. Enterprises that introduced innovations



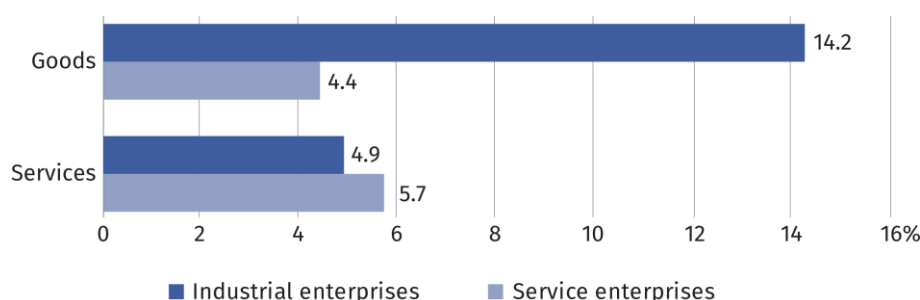
Product innovations were introduced more often by industrial enterprises than service enterprises (15.2% and 8.2%, respectively), whereas in the case of business process innovations, the shares of enterprises implementing them were at a similar level (28.1% and 30.1%, respectively).

Chart 3. Innovative enterprises in the years 2020–2022 by type of innovation



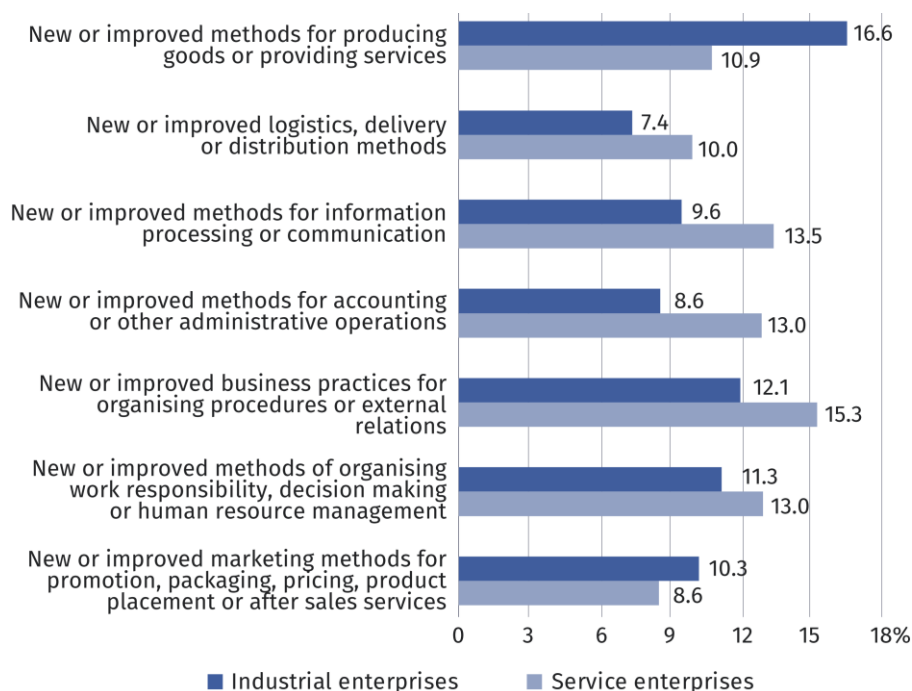
In the period 2020–2022, under product innovation, new or improved goods were introduced by 14.2% of industrial enterprises and 4.4% of service enterprises, while new or improved services were introduced by 4.9% of industrial enterprises and 5.7% of service enterprises.

Chart 4. Enterprises that introduced product innovations in the years 2020–2022



Among the types of business process innovations, industrial enterprises most often introduced new or improved methods for producing goods or providing services (16.6%), while service entities introduced new or improved business practices for organising procedures or external relations (15.3%).

Chart 5. Enterprises that introduced business process innovations in the years 2020–2022



The highest percentage of industrial enterprises that introduced product or business process innovations was noted in the divisions: Mining of coal and lignite (70.6%) and Manufacture of basic pharmaceutical substances and medicines and other pharmaceutical products (64.7%), while in services – in the divisions Insurance, reinsurance and pension funding, excluding compulsory social security (88.9%) and Scientific research and development (62.2%).

Table 1. Innovative enterprises in the years 2020–2022 by selected types of activities (divisions of the Polish Classification of Activities)

Specification	Enterprises that introduced innovations		
	total	product	business process
	in %		
Industrial enterprises	32.2	15.2	28.1
Mining of coal and lignite	70.6	17.6	64.7
Manufacture of food products	25.9	11.5	22.3

Table 1. Innovative enterprises in the years 2020–2022 by selected types of activities (divisions of the Polish Classification of Activities) (cont.)

Specification	Enterprises that introduced innovations		
	total	product	business process
	in %		
Industrial enterprises (cont.)			
Manufacture of wearing apparel	17.2	6.3	16.7
Manufacture of leather and related products	25.1	11.5	24.2
Manufacture and processing of coke and refined petroleum products	54.8	32.3	50.0
Manufacture of chemicals and chemical products	49.5	34.4	41.9
Manufacture of basic pharmaceutical substances and medicines and other pharmaceutical products	64.7	51.1	52.6
Manufacture of computer, electronic and optical products	54.1	38.9	44.8
Service enterprises	32.1	8.2	30.1
Wholesale trade, excluding motor vehicles	30.9	6.7	28.6
Land transport and transport via pipelines	25.6	1.5	25.5
Water transport	27.3	3.0	27.3
Computer programming, consultancy and related activities	49.3	25.8	45.4
Information service activities	50.9	27.4	46.7
Insurance, reinsurance and pension funding, excluding compulsory social security	88.9	54.0	84.1
Scientific research and development	62.2	41.6	55.1

Taking into account the number of persons employed, units with 250 or more persons employed had the largest share in the total number of enterprises introducing innovations. Both in industry and in services, enterprises of this size class most often introduced business process innovations (65.1% and 59.9% respectively).

Among enterprises introducing innovations, the largest share was held by entities with 250 or more persons employed

Table 2. Innovative enterprises in the years 2020–2022 by number of persons employed

Specification	Enterprises that introduced innovations	
	product	business process
	in %	
Industrial enterprises	15.2	28.1
number of persons employed:		
10–49	9.4	21.4
50–249	26.2	40.6
250 and more	47.5	65.1
Service enterprises	8.2	30.1
number of persons employed:		
10–49	6.5	27.4
50–249	13.6	37.8
250 and more	23.8	59.9

Expenditures on innovation activities

Expenditures on innovation activities in industrial enterprises in 2022 amounted to PLN 26011.7 million (by 36.6% more than a year ago), while in service enterprises they amounted to PLN 29689.1 million (by 32.8% more).

Expenditures on research and development predominated in both industrial and service enterprises (they accounted for 49.2% and 55.4%, of all expenditures on innovation activities, respectively); expenditures on investment in fixed assets and intangible assets had also a significant share (39.8% and 21.8%, respectively).

In the structure of expenditures on innovative activities by source of funds, own funds had the highest share in industrial and service enterprises (76.4% and 89.1%, respectively); a much lower proportion was accounted for by funds obtained from abroad (9.2% and 4.4%, respectively), credits, loans and other financial liabilities from financial institutions (7.4% and 2.2%, respectively) and domestic funds received from institutions with public funds (3.1% and 1.8%, respectively).

Expenditures on innovative activities in service enterprises were higher by 14.1% than in industrial enterprises

Table 3. Expenditures on innovation activities

Specification	2020	2021	2022
	in million PLN		
Industrial enterprises	20378.2	19041.5	26011.7
Service enterprises	18399.2	22348.6	29689.1

Revenues from sales

In 2022, the share of revenues from sales of new or improved products introduced to the market between 2020 and 2022 in total revenues from sales amounted to 6.9% in industrial enterprises and 2.7% in service enterprises. The largest share of these revenues, both in industrial and service enterprises was recorded in enterprises with 250 or more persons employed (8.2% and 5.0% respectively).

Table 4. The share of revenues from sales of new or improved products in total revenues from sales

Specification	Products introduced to the market					
	total		new to the market		only new to the enterprise	
	2019–2021	2020–2022	2019–2021	2020–2022	2019–2021	2020–2022
	in %					
Industrial enterprises	8.9	6.9	3.3	2.6	5.6	4.3
number of persons employed:						
10–49	2.3	2.3	1.0	0.9	1.3	1.4
50–249	4.4	4.7	1.9	1.9	2.5	2.8
250 and more	11.5	8.2	4.1	3.1	7.4	5.1
Service enterprises	3.1	2.7	1.2	1.3	1.9	1.5
number of persons employed:						
10–49	0.8	0.7	0.3	0.4	0.5	0.3
50–249	2.4	1.6	0.8	0.7	1.5	0.9
250 and more	5.2	5.0	2.0	2.3	3.1	2.8

In 2022, the share of revenues from sales of products new or improved to the market in revenues from sales of innovative products amounted to 38.0% in industry and 45.7% in services.

When citing data from the Central Statistical Office, please include the following information: "Source of CSO data", and in the case of publishing calculations made on the data published by the Central Statistical Office, please include the following information: "Own study based on GUS data"

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Related information

[Innovation activities of enterprises in the years 2019-2021](#)

Data available in databases

[Local Data Bank – Science and technology. Information Society – Innovation activities](#)

[Knowledge Databases – Science and technology – Innovation activities](#)

Terms used in official statistics

[Innovation activities](#)

[Innovation](#)

[Product innovation](#)

[Business process innovation](#)

[Innovative enterprise](#)