

■ Table 1.8.16 1 / 2

Process innovation rate with cost reduction, by sector groups and employment size classes¹²

		Share in %				
Economic activity/Employment size class		2019	2020	2021	2022	2023
B 05-09	Mining and quarrying	17.4	8.2	16.7	14.0	16.2
C 10-33	Manufacturing	16.7	15.7	18.2	16.3	17.7
C 10-12	Manufacture of food products, beverages and tobacco products	12.9	7.3	12.2	14.1	15.1
C 13-15	Manufacture of textiles, wearing apparel and of leather and related products	16.2	11.1	16.7	14.1	15.8
C 16-18	Manufacture of wood (except furniture), paper and paper products; printing and reproduction of recorded media	10.6	13.3	20.8	16.9	15.6
C 19	Manufacture of coke and refined petroleum products	53.5	51.2	70.4	65.1	55.8
C 20	Manufacture of chemicals and chemical products	19.7	25.3	26.9	27.4	21.5
C 21	Manufacture of basic pharmaceutical products and pharmaceutical preparations	28.5	25.0	31.5	29.1	29.1
C 22	Manufacture of rubber and plastic products	21.3	24.7	20.2	19.3	18.2
C 23	Manufacture of other non-metallic mineral products	14.5	14.5	20.5	14.1	14.7
C 24	Manufacture of basic metals	16.2	23.4	27.8	19.5	18.8
C 25	Manufacture of fabricated metal products, except machinery and equipment	19.6	17.7	19.4	16.9	16.9
C 26	Manufacture of computer, electronic and optical products	26.9	17.9	27.7	20.0	22.7
C 27	Manufacture of electrical equipment	27.8	18.2	27.4	17.5	16.4
C 28	Manufacture of machinery and equipment n.e.c.	15.6	17.5	23.3	18.9	21.1
C 29	Manufacture of motor vehicles, trailers and semi-trailers	25.6	32.0	32.8	25.5	27.3
C 30	Manufacture of other transport equipment	22.7	25.9	20.3	28.8	28.2
C 31-32	Manufacture of furniture; other manufacturing	14.4	14.8	8.2	12.1	19.2
C 33	Repair and installation of machinery and equipment	10.5	12.5	7.8	8.3	14.6
D 35, E 36-39	Electricity, gas, steam and air conditioning supply; water supply; sewerage, waste management and remediation activities	8.1	9.1	9.4	8.4	11.0
D 35	Electricity, gas, steam and air conditioning supply	10.7	18.5	10.9	13.0	10.2
E 36-37	Water collection, treatment and supply; sewerage	6.1	3.3	12.9	2.0	13.0
E 38-39	Waste collection, treatment and disposal activities; materials recovery; remediation activities and other waste management services	7.8	7.0	6.8	9.0	10.3
G 46; H 49-53; J 58-63; K 64-66; M 69/70.2, 71-74; N 78-82	Business-related services	12.6	10.3	11.4	9.3	13.5
G 46	Wholesale trade (except of motor vehicles and motorcycles)	14.7	9.7	10.7	6.5	11.5
H 49-53	Transportation and storage	11.9	4.5	8.2	7.2	10.1
J 58-60	Publishing activities; motion picture, video and television programme production, sound recording and music publishing activities; programming and broadcasting activities	11.0	12.4	16.6	8.2	22.5
J 61-63	Telecommunications; computer programming, consultancy and related activities; information service activities	17.5	19.3	22.0	15.3	18.5
K 64-66	Financial and insurance activities	22.2	19.9	18.0	16.9	17.8
M 69/70.2	Legal and accounting activities; management consultancy activities	10.5	11.1	12.1	9.7	12.0
M 71-72	Architectural and engineering activities; technical testing and analysis; scientific research and development	10.4	10.0	14.5	10.9	10.5
M 73-74	Advertising and market research; other professional, scientific and technical activities	15.4	13.9	18.4	20.6	26.1
N 78-82	Other business services	9.8	8.9	4.8	6.5	14.1

■ Table 1.8.16 2 / 2

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						Share in %				
Economic activity/Employment size class			2019	2020	2021	2022	2023			
Enterprises with employees										
5	to	9	11.2	7.1	11.1	7.8	13.2			
10	to	19	11.9	9.7	8.5	9.0	12.0			
20	to	49	13.1	13.6	15.8	11.1	14.1			
50	to	99	16.2	19.0	18.6	20.5	19.0			
100	to	249	25.8	25.0	21.4	22.0	19.8			
Subtotal			12.9	11.0	12.5	10.5	13.9			
250	to	499	35.3	29.5	33.4	28.4	31.0			
500	to	999	40.2	39.0	43.1	36.7	38.4			
1,000	and more		64.4	64.0	62.9	64.1	64.0			
Subtotal			41.5	37.7	40.8	36.5	38.4			
Total			13.8	11.9	13.4	11.3	14.6			

1 All data are projected on the population of enterprises with 5 or more employees.

2 Classification of Economic Activities - 2008 edition (based on NACE 2008 - Nomenclature statistique des activités économiques dans la Communauté européenne).

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Source: ZEW - Leibniz Centre for European Economic Research - Mannheim Innovation Panel, special evaluation

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<https://www.govdata.de/dl-de/by-2-0>