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Innovation rate, by sector groups and employment size classes¹²

		Share in %				
	Economic activity	2019	2020	2021	2022	2023
B 05-09	Mining and quarrying	45.7	42.8	49.9	45.9	54.6
C 10-33	Manufacturing	58.5	62.2	58.9	56.7	53.2
C 10-12	Manufacture of food products, beverages and tobacco products	47.8	50.4	44.1	46.6	39.3
C 13-15	Manufacture of textiles, wearing apparel and of leather and related products	53.9	57.1	58.9	52.9	58.4
C 16-18	Manufacture of wood (except furniture), paper and paper products; printing and reproduction of recorded media	52.9	65.1	53.9	58.3	54.8
C 19	Manufacture of coke and refined petroleum products	90.4	79.0	92.2	82.9	77.0
C 20	Manufacture of chemicals and chemical products	73.8	78.5	76.0	74.8	76.0
C 21	Manufacture of basic pharmaceutical products and pharmaceutical preparations	79.0	78.9	73.6	78.8	77.9
C 22	Manufacture of rubber and plastic products	57.7	69.3	59.7	62.8	54.6
C 23	Manufacture of other non-metallic mineral products	60.5	52.1	57.6	52.0	47.6
C 24	Manufacture of basic metals	74.0	68.1	58.7	67.3	49.7
C 25	Manufacture of fabricated metal products, except machinery and equipment	55.9	58.2	60.4	50.1	45.3
C 26	Manufacture of computer, electronic and optical products	78.7	80.4	72.8	72.9	72.4
C 27	Manufacture of electrical equipment	67.5	77.0	73.5	63.0	62.0
C 28	Manufacture of machinery and equipment n.e.c.	73.1	75.3	70.6	71.5	69.8
C 29	Manufacture of motor vehicles, trailers and semi-trailers	55.3	72.6	65.2	60.9	55.5
C 30	Manufacture of other transport equipment	68.8	81.6	66.9	81.3	60.7
C 31-32	Manufacture of furniture; other manufacturing	60.1	60.4	61.7	56.4	61.3
C 33	Repair and installation of machinery and equipment	54.2	59.6	48.3	50.9	46.2
D 35, E 36-39	Electricity, gas, steam and air conditioning supply; water supply; sewerage, waste management and remediation activities	44.2	50.3	42.3	38.8	42.4
D 35	Electricity, gas, steam and air conditioning supply	52.0	55.9	40.5	43.1	40.4
E 36-37	Water collection, treatment and supply; sewerage	39.5	41.3	41.8	31.4	47.4
E 38-39	Waste collection, treatment and disposal activities; materials recovery; remediation activities and other waste management services	42.7	51.8	43.5	40.1	40.9
G 46; H 49-53; J 58-63; K 64-66; M 69/70.2, 71-74; N 78-82	Business-related services	53.2	52.9	52.8	48.6	50.4
G 46	Wholesale trade (except of motor vehicles and motorcycles)	45.1	49.5	50.8	41.9	45.4
H 49-53	Transportation and storage	35.7	33.3	31.4	34.5	38.2
J 58-60	Publishing activities; motion picture, video and television programme production, sound recording and music publishing activities; programming and broadcasting activities	59.2	63.2	57.9	58.4	52.0
J 61-63	Telecommunications; computer programming, consultancy and related activities; information service activities	77.4	76.0	78.5	80.8	72.4
K 64-66	Financial and insurance activities	64.2	68.0	61.0	58.8	58.7
M 69/70.2	Legal and accounting activities; management consultancy activities	60.0	55.8	58.3	48.7	52.2
M 71-72	Architectural and engineering activities; technical testing and analysis; scientific research and development	63.1	61.2	65.8	55.7	55.2
M 73-74	Advertising and market research; other professional, scientific and technical activities	73.1	76.8	63.9	57.9	76.2
N 78-82	Other business services	45.2	50.5	46.2	45.6	46.6

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						Share in %				
Employment size class						2019	2020	2021	2022	2023
Enterprises with employees										
5	to	9				50.0	46.6	51.3	43.4	45.0
10	to	19				51.8	54.9	47.7	47.0	49.4
20	to	49				55.7	60.5	56.8	55.6	53.3
50	to	99				62.2	69.6	65.7	64.9	59.3
100	to	249				70.9	70.3	68.8	68.0	65.7
Subtotal						53.7	54.7	53.5	49.9	50.2
250	to	499				77.7	77.7	76.5	70.3	72.8
500	to	999				84.6	80.5	82.4	84.9	82.0
1,000	and more					92.7	93.3	92.7	91.0	91.3
Subtotal						82.0	81.0	80.7	77.5	78.2
Total						54.6	55.6	54.3	50.7	51.0

1 Innovation rate: the share of all enterprises that implement product or process innovations. All data are projected on the population of enterprises with five 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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This table also appears in the Federal Report on Research and Innovation as Table 21.

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>