■ Table 1.1.9 1/2
Federal Government expenditure on science, research and development to business enterprises, by economic activities¹

	Millions	of €				
		ACTUAL				
	Economic activity ²	2019		2020		
	Economic activity	Total	Of which, direct project funding ³	Total	Of which, direct project funding ³	
A 01-03	Agriculture, forestry and fishing	19.1	18.1	32.4	32.2	
B 05-09	Mining and quarrying	3.1	1.1	3.0	1.2	
C 10-33	Manufacturing	2,008.5	1,695.7	2,471.9	2,149.2	
C 10-12	Manufacture of food products; manufacture of tobacco products	13.1	2.3	15.0	3.0	
C 13-15	Manufacture of textiles and wearing apparel; manufacture of leather and related products	17.0	3.2	17.0	2.7	
C 16-18	Manufacture of wood and products of wood and cork (except furniture); manufacture of paper and paper products; publishing, printing and reproduction of recorded media	11.1	3.2	11.2	3.3	
C 19	Manufacture of coke and refined petroleum products	0.1	0.1	5.8	0.5	
C 20-21	Manufacture of chemicals and chemical products; manufacture of basic pharmaceutical products and pharmaceutical preparations	75.9	50.7	516.2	497.0	
C 22-23	Manufacture of rubber and plastic products; manufacture of other non-metallic mineral products	52.7	21.4	57.6	24.1	
C 24-25	Manufacture of basic metals and fabricated metal products, except machinery and equipment	66.3	28.5	71.7	27.9	
C 26	Manufacture of computer, electronic and optical products	647.8	603.7	627.5	588.9	
C 27	Manufacture of electrical equipment	191.8	179.6	182.0	167.1	
C 28	Manufacture of machinery and equipment n.e.c.	245.7	168.4	250.1	172.6	
C 29-30	Manufacture of motor vehicles, trailers and semi-trailers, manufacture of other transport equipment	663.4	625.2	690.8	651.6	
C 31-33	Manufacture of furniture, other manufacturing, repair and installation of machinery and equipment	23.8	9.4	27.2	10.6	
D 35	Energy supply (without mining)	78.2	69.4	66.8	56.9	
E 36-39	Water supply, sewerage, waste management and remediation activities	299.4	290.5	339.8	329.4	
F 41-43	Construction	26.8	7.5	31.8	12.1	
G 45-47	Wholesale and retail trade and repair of motor vehicles and motorcycles	19.6	5.9	29.5	10.0	
H 49-53	Transportation and storage	53.7	48.6	77.2	71.5	
I 55-56	Accommodation	0.6	0.2	0.6	0.3	
J 58-63	Information and communication	180.0	136.1	205.2	150.6	
K 64-66	Financial and insurance activities	23.9	22.8	37.8	37.3	
L-T 68-98	Other service activities by enterprises and members of the professions ⁴	916.5	714.1	910.8	746.4	
	Total expenditure ⁵	3,629.6	3,010.0	4,206.8	3,597.2	
	Of which, R&D	3,281.0	2,678.7	3,815.5	3,216.9	

■ Table 1.1.9 2/2

Federal Government expenditure on science, research and development to business enterprises, by economic activities¹

	Millions	of €				
		ACTUAL				
	Economic activity ²	2021		2022		
	Economic activity	Total	Of which, direct project funding ³	Total	Of which, direct project funding ³	
4 01-03	Agriculture, forestry and fishing	22.6	20.8	21.4	20.3	
3 05-09	Mining and quarrying	3.6	1.6	3.4	1.9	
C 10-33	Manufacturing	2,119.2	1,762.2	1,823.2	1,482.6	
C 10-12	Manufacture of food products; manufacture of tobacco products	17.5	3.6	21.3	6.7	
2 13-15	Manufacture of textiles and wearing apparel; manufacture of leather and related products	19.4	3.5	21.3	6.9	
2 16-18	Manufacture of wood and products of wood and cork (except furniture); manufacture of paper and paper products; publishing, printing and reproduction of recorded media	13.1	4.6	19.2	11.6	
C 19	Manufacture of coke and refined petroleum products	0.5	0.5	1.1	1.1	
20-21	Manufacture of chemicals and chemical products; manufacture of basic pharmaceutical products and pharmaceutical preparations	104.8	76.3	135.4	111.2	
22-23	Manufacture of rubber and plastic products; manufacture of other non-metallic mineral products	56.3	22.6	50.1	18.6	
24-25	Manufacture of basic metals and fabricated metal products, except machinery and equipment	73.1	29.7	74.5	31.2	
C 26	Manufacture of computer, electronic and optical products	646.6	594.1	431.4	378.8	
C 27	Manufacture of electrical equipment	99.8	85.8	132.7	117.0	
C 28	Manufacture of machinery and equipment n.e.c.	311.6	219.8	329.6	245.2	
29-30	Manufacture of motor vehicles, trailers and semi-trailers, manufacture of other transport equipment	748.5	707.9	569.1	532.3	
2 31-33	Manufacture of furniture, other manufacturing, repair and installation of machinery and equipment	28.0	13.7	37.3	22.1	
D 35	Energy supply (without mining)	67.1	56.2	78.9	68.2	
∃ 36-39	Water supply, sewerage, waste management and remediation				257.4	
F 44 45	activities	335.1	320.8	371.6	357.4	
	Construction	33.1	12.7	35.2	15.6	
45-47 ۋ	Wholesale and retail trade and repair of motor vehicles and motorcycles	25.4	8.9	33.2	14.9	
H 49-53	Transportation and storage	46.4	41.5	66.0	60.9	
	Accommodation	1.2	0.7	1.2	1.2	
	Information and communication	248.6	195.4	291.5	236.8	
K 64-66	Financial and insurance activities	83.9	82.7	22.3	20.9	
L-T	Other service activities by enterprises and members of the				- 12	
68-98	professions ⁴	1,144.2	903.2	1,587.4	1,236.8	
	Total expenditure ⁵	4,130.5	3,406.7	4,335.3	3,517.3	
	Of which, R&D	3,756.5	3,044.8	3,928.6	3,125.9	

¹ Including "Energy and climate fund". Possible deviations from earlier publications due to subsequent changes in the allocation to the classification of economic activities are possible. Possible rounding differences.

Last update: November 14, 2023

Source: Special evaluation of the Federal Ministry of Education and Research

This work is licensed under a Data licence Germany attribution 2.0. $\underline{\text{https://www.govdata.de/dl-de/by-2-0}}$

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

³ Including expenditures for contracts in the framework of ministerial and defence-related R&D.

⁴ Including research and development in business enterprise institutions.

⁵ Differences with regard to the figures in table 1.1.8 may be due to rounding.