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**Expenditure on science, research and development by the Federal Ministry of Education and Research (BMBF), by funding areas and funding priorities<sup>1</sup>**

		Millions of €			
Funding area Funding priority		ACTUAL			
		2018		2019	
		Total	Of which, R&D	Total	Of which, R&D
<b>A</b>	<b>Health research and health industry</b>	2,290.5	2,290.5	2,459.6	2,459.6
AA	Health research and health industry	2,290.5	2,290.5	2,459.6	2,459.6
AB	Radiation protection	0.0	0.0	0.0	0.0
<b>B</b>	<b>Bioeconomy</b>	292.8	292.8	302.5	302.5
<b>C</b>	<b>Civil security research</b>	96.2	96.2	93.6	93.6
<b>D</b>	<b>Nutrition, agriculture and consumer protection</b>	49.4	49.4	52.3	52.3
DA	Nutrition	3.4	3.4	4.1	4.1
DB	Sustainable agricultural economy and rural areas	44.1	44.1	46.0	46.0
DC	Health and economic consumer protection	2.0	2.0	2.3	2.3
<b>E</b>	<b>Energy research and energy technologies</b>	937.2	658.1	943.0	653.5
EA	Efficient energy conversion	246.0	246.0	233.7	233.7
EB	Renewable energy	210.9	210.9	219.6	219.6
EC	Nuclear safety and waste management	56.6	56.6	57.4	57.4
ED	Decommissioning of nuclear facilities	288.5	9.4	298.6	9.2
EF	Fusion research	135.2	135.2	133.7	133.7
<b>F</b>	<b>Climate, environment, sustainability</b>	1,106.6	1,106.6	1,126.2	1,126.2
FA	Climate, climate protection; global change	222.4	222.4	236.6	236.6
FB	Coast, marine and polar research, geosciences	457.1	457.1	438.0	438.0
FC	Environmental and sustainability research	244.4	244.4	253.0	253.0
FD	Ecology, nature conservation, sustainable use	182.7	182.7	198.7	198.7
<b>G</b>	<b>Information and communication technologies</b>	860.9	659.2	855.7	728.7
GA	Software systems; knowledge technologies	221.3	221.3	242.9	242.9
GB	Communication technologies and services	158.6	158.6	170.7	170.7
GC	Electronic, electronic systems	408.4	220.1	355.8	243.4
GD	Microsystems technology	37.9	37.9	46.5	46.5
GE	Multimedia, development of convergent information and communication technology	34.6	21.3	39.7	25.2
<b>H</b>	<b>Vehicle and traffic technologies including maritime technologies</b>	32.4	32.4	36.6	36.6
HA	Vehicle and traffic technologies	25.5	25.5	29.5	29.5
HB	Maritime technologies	6.9	6.9	7.1	7.1
<b>I</b>	<b>Aerospace</b>	110.9	110.9	115.3	115.3
IB	National space research and space technology	110.9	110.9	115.3	115.3
<b>J</b>	<b>Research and development to improve working conditions and in the service sector</b>	78.2	78.2	81.4	81.4
JA	Research to improve working conditions	41.9	41.9	47.8	47.8
JB	Research in the service sector	36.4	36.4	33.6	33.6
<b>K</b>	<b>Nanotechnologies and materials technologies</b>	635.1	635.1	670.1	670.1
KA	Nanotechnologies	243.3	243.3	260.7	260.7
KB	Materials technologies	391.8	391.8	409.5	409.5
<b>L</b>	<b>Optical technologies</b>	211.1	211.1	220.4	220.4
<b>M</b>	<b>Production technologies</b>	242.7	242.7	262.4	262.4
<b>N</b>	<b>Regional planning and urban development; construction research</b>	27.5	27.5	29.6	29.6
NA	Regional planning, urban development, housing	2.7	2.7	2.9	2.9
NB	Construction research	24.8	24.8	26.6	26.6

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**Expenditure on science, research and development by the Federal Ministry of Education and Research (BMBF), by funding areas and funding priorities<sup>1</sup>**

		Millions of €			
Funding area Funding priority		ACTUAL			
		2018		2019	
		Total	Of which, R&D	Total	Of which, R&D
<b>O</b>	<b>Innovations in education</b>	810.6	504.9	802.4	481.4
OA	Educational reporting, international assessments	249.8	125.8	251.7	128.0
OB	Educational research	507.8	326.0	519.9	322.6
OC	New media in the education	53.1	53.1	30.8	30.8
<b>P</b>	<b>Humanities; economics and social sciences</b>	891.3	891.3	995.7	995.7
PA	Humanities research	511.9	511.9	552.6	552.6
PB	Social scientific research	183.1	183.1	205.0	205.0
PC	Economic and finance scientific research	52.6	52.6	59.9	59.9
PD	Infrastructures	143.6	143.6	178.3	178.3
<b>Q</b>	<b>Innovation funding for SMEs</b>	113.9	113.9	110.1	110.1
QB	Technology support for SMEs	2.9	2.9	3.8	3.8
QC	Technology transfer and innovation consulting	111.0	111.0	106.3	106.3
<b>R</b>	<b>Innovation-relevant underlying conditions and other cross-cutting activities</b>	564.1	456.6	604.8	466.1
RA	Technology Assessment	2.3	2.3	2.3	2.3
RB	Structural cross-cutting activities	118.3	63.2	179.6	97.7
RC	Demographical change	88.2	88.2	86.6	86.6
RD	Sports promotion and sports research	0.8	0.8	0.7	0.7
RE	Others	354.5	302.1	335.6	278.9
<b>T</b>	<b>Funding organisations, restructuring of the research field in acceding areas; construction of universities and primarily university-specific special programmes</b>	3,410.8	718.0	3,409.4	722.1
TA	Basic funding of research institutions	0.0	0.0	0.0	0.0
TB	Others	3,410.8	718.0	3,409.4	722.1
<b>U</b>	<b>Large-scale equipment for basic research</b>	1,311.3	1,311.3	1,340.3	1,340.3
<b>Z</b>	<b>Global reduced expenditure; budget reserve<sup>4</sup></b>	-	-	-	-
<b>Total expenditure</b>		<b>14,073.6</b>	<b>10,486.7</b>	<b>14,511.4</b>	<b>10,948.1</b>

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**Expenditure on science, research and development by the Federal Ministry of Education and Research (BMBF), by funding areas and funding priorities<sup>1</sup>**

Millions of €					
Funding area Funding priority	ACTUAL		TARGET <sup>2</sup>		
	2020		2021 <sup>3</sup>		
	Total	Of which, R&D	Total	Of which, R&D	
<b>A Health research and health industry</b>	3,278.2	3,278.2	3,290.5	3,290.5	
AA Health research and health industry	3,278.2	3,278.2	3,290.5	3,290.5	
AB Radiation protection	0.0	0.0	0.0	0.0	
<b>B Bioeconomy</b>	306.1	306.1	265.5	265.5	
<b>C Civil security research</b>	105.1	105.1	116.3	116.3	
<b>D Nutrition, agriculture and consumer protection</b>	52.6	52.6	53.9	53.9	
DA Nutrition	4.2	4.2	4.2	4.2	
DB Sustainable agricultural economy and rural areas	45.4	45.4	46.4	46.4	
DC Health and economic consumer protection	3.1	3.1	3.3	3.3	
<b>E Energy research and energy technologies</b>	881.3	562.1	987.0	623.8	
EA Efficient energy conversion	224.3	224.3	393.4	393.4	
EB Renewable energy	226.8	226.8	138.7	138.7	
EC Nuclear safety and waste management	57.6	57.6	42.0	42.0	
ED Decommissioning of nuclear facilities	334.7	15.5	379.6	16.4	
EF Fusion research	37.9	37.9	33.2	33.2	
<b>F Climate, environment, sustainability</b>	1,175.4	1,175.4	1,306.6	1,306.6	
FA Climate, climate protection; global change	244.5	244.5	256.2	256.2	
FB Coast, marine and polar research, geosciences	456.0	456.0	556.8	556.8	
FC Environmental and sustainability research	254.9	254.9	312.3	312.3	
FD Ecology, nature conservation, sustainable use	220.1	220.1	181.3	181.3	
<b>G Information and communication technologies</b>	962.4	840.3	1,067.7	1,004.8	
GA Software systems; knowledge technologies	293.3	293.3	372.6	372.6	
GB Communication technologies and services	186.7	186.7	252.9	252.9	
GC Electronic, electronic systems	394.4	287.3	348.0	300.5	
GD Microsystems technology	52.3	52.3	56.8	56.8	
GE Multimedia, development of convergent information and communication technology	35.6	20.7	37.4	22.0	
<b>H Vehicle and traffic technologies including maritime technologies</b>	36.8	36.8	39.5	39.5	
HA Vehicle and traffic technologies	31.2	31.2	33.3	33.3	
HB Maritime technologies	5.7	5.7	6.1	6.1	
<b>I Aerospace</b>	126.0	126.0	127.0	127.0	
IB National space research and space technology	126.0	126.0	127.0	127.0	
<b>J Research and development to improve working conditions and in the service sector</b>	81.6	81.6	137.4	137.4	
JA Research to improve working conditions	51.9	51.9	130.9	130.9	
JB Research in the service sector	29.7	29.7	6.5	6.5	
<b>K Nanotechnologies and materials technologies</b>	721.0	721.0	767.9	767.9	
KA Nanotechnologies	293.6	293.6	406.6	406.6	
KB Materials technologies	427.4	427.4	361.4	361.4	
<b>L Optical technologies</b>	214.3	214.3	242.8	242.8	
<b>M Production technologies</b>	280.4	280.4	222.4	222.4	
<b>N Regional planning and urban development; construction research</b>	32.1	32.1	32.4	32.4	
NA Regional planning, urban development, housing	2.5	2.5	2.6	2.6	
NB Construction research	29.5	29.5	29.8	29.8	

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Millions of €				
Funding area Funding priority	ACTUAL		TARGET <sup>2</sup>	
	2020		2021 <sup>3</sup>	
	Total	Of which, R&D	Total	Of which, R&D
<b>O Innovations in education</b>	782.3	475.3	982.5	626.3
OA Educational reporting, international assessments	241.1	126.7	285.5	151.2
OB Educational research	502.4	309.8	559.0	337.1
OC New media in the education	38.8	38.8	138.0	138.0
<b>P Humanities; economics and social sciences</b>	1,021.8	1,021.8	1,130.8	1,130.8
PA Humanities research	578.3	578.3	648.7	648.7
PB Social scientific research	209.1	209.1	188.5	188.5
PC Economic and finance scientific research	67.4	67.4	71.4	71.4
PD Infrastructures	167.0	167.0	222.2	222.2
<b>Q Innovation funding for SMEs</b>	104.8	104.8	128.3	128.3
QB Technology support for SMEs	8.5	8.5	9.2	9.2
QC Technology transfer and innovation consulting	96.3	96.3	119.1	119.1
<b>R Innovation-relevant underlying conditions and other cross-cutting activities</b>	873.9	731.7	1,311.2	1,151.8
RA Technology Assessment	2.5	2.5	4.9	4.9
RB Structural cross-cutting activities	416.2	325.8	776.1	679.8
RC Demographical change	82.3	82.3	83.7	83.7
RD Sports promotion and sports research	0.7	0.7	0.7	0.7
RE Others	372.3	320.5	445.8	382.7
<b>T Funding organisations, restructuring of the research field in acceding areas; construction of universities and primarily university-specific special programmes</b>	2,677.0	717.2	2,849.4	904.7
TA Basic funding of research institutions	0.0	0.0	2.0	2.0
TB Others	2,677.0	717.2	2,847.4	902.8
<b>U Large-scale equipment for basic research</b>	1,408.0	1,408.0	1,513.5	1,513.5
<b>Z Global reduced expenditure; budget reserve<sup>4</sup></b>	-	-	-412.3	-412.3
<b>Total expenditure</b>	<b>15,121.2</b>	<b>12,271.0</b>	<b>16,160.3</b>	<b>13,273.9</b>

1 According to the Federal Government's planning system 2009. Expenditure was implemented in accordance with the Federal Government's planning system 2009. Expenditure of non-university research organisations are distributed among funding areas and funding priorities. Possible rounding differences.

2 Distribution among funding areas and funding priorities partly estimated or extrapolated.

3 Without the supplementary budget of 9 June 2021.

4 ACTUAL figures are needed to break down the BMBF's total expenditure reduction by funding areas and funding priorities.

Last update: September 9, 2021

This table also appears in the Federal Report on Research and Innovation as Table 6.

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

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