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R&D personnel in EU countries and selected OECD countries, by personnel groups and sectors¹

Full-time equivalents								
Country	Year	Researchers	Technical and other personnel	R&D personnel total		Of which, working in the		
						Business enterprise sector	Higher education sector	Government and PNP ² sector
		Number		Per 1,000 labour force	Share in %			
Germany ³	2015	387,982	252,534	640,516	15.2	63.2	20.9	15.9
	2016	399,605	258,289	657,894	15.3	62.8	21.5	15.7
	2017	419,617	266,732	686,349	15.9	63.6	20.9	15.4
	2018	433,685	274,019	707,704	16.3	63.7	20.8	15.5
	2019	450,697	284,887	735,584	16.8	64.7	20.0	15.3
Finland	2015	37,516	12,851	50,367	18.6	59.1	30.8	10.1
	2016	35,908	11,521	47,429	17.6	58.3	32.0	9.8
	2017	37,047	11,952	48,999	18.0	57.4	32.7	9.9
	2018	37,891	12,120	50,011	18.1	57.4	32.8	9.7
	2019	39,984	11,510	51,494	18.6	57.7	33.0	9.3
France	2015	277,631	151,011	428,643	14.5	58.7	28.1	13.2
	2016	285,488	146,757	432,245	14.6	59.2	27.6	13.2
	2017	295,754	145,755	441,509	14.9	60.1	27.0	12.8
	2018	305,243	147,727	452,970	15.2	61.0	26.5	12.6
	2019	314,101	149,638	463,738	15.6	61.9	25.9	12.3
Italy	2015	125,875	133,292	259,167	10.2	52.8	29.7	17.6
	2016	133,706	156,334	290,040	11.3	56.7	27.7	15.6
	2017	140,378	177,250	317,628	12.2	60.4	25.3	14.3
	2018	152,523	193,146	345,669	13.3	63.3	23.5	13.2
	2019	160,824	195,030	355,854	13.7	63.2	23.5	13.2
Sweden ⁴	2015	66,734	16,817	83,551	16.0	69.0	25.7	5.3
	2016	70,372	20,318	90,690	17.2	70.9	24.2	5.0
	2017	73,132	15,796	88,928	16.5	71.7	22.7	5.6
	2018	75,151	16,860	92,011	16.9	73.4	21.1	5.4
	2019	77,629	13,543	91,172	16.6	70.9	23.1	6.0
United Kingdom	2015	284,483	129,377	413,860	12.6	49.8	45.1	5.1
	2016	288,922	128,468	417,390	12.6	50.2	44.7	5.0
	2017	295,934	147,663	443,597	13.3	52.1	42.8	5.0
	2018	305,795	157,682	463,476	13.8	54.0	41.1	4.9
	2019	317,472	168,616	486,088	14.3	54.0	39.5	6.5

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Japan	2015	662,071	212,934	875,005	13.3	67.7	23.8	8.5
	2016	665,566	206,774	872,340	13.1	67.2	24.2	8.6
	2017	676,292	214,457	890,749	13.3	67.7	23.8	8.4
	2018	678,134	218,767	896,901	13.2	68.2	23.4	8.4
	2019	681,821	221,546	903,367	13.2	68.3	23.4	8.3
Canada	2015	162,960	81,920	244,880	12.7	63.4	29.7	6.9
	2016	158,980	69,610	228,590	11.7	61.3	32.0	6.7
	2017	162,450	69,580	232,030	11.8	60.9	32.1	7.0
	2018	167,440	70,610	238,050	11.9	61.0	31.9	7.1
	2019	-	-	-	-	-	-	-
United States	2015	1,370,627	-	-	-	-	-	-
	2016	1,373,551	-	-	-	-	-	-
	2017	1,435,905	-	-	-	-	-	-
	2018	1,554,900	-	-	-	-	-	-
	2019	-	-	-	-	-	-	-

1 Some figures are revised, provisional, estimated, differently defined or only partly comparable with figures from previous years (see original edition of “Main Science and Technology Indicators 2021/1”).

2 PNP: private non-profit institutions.

3 As of 2016, increases of expenditure on higher education are partly due to a methodological adjustment of the R&D coefficients.

4 Part of personnel data were reallocated from the category technical and other personnel to the category researchers. Government sector excludes R&D personnel from the county councils.

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Source: OECD (Main Science and Technology Indicators 2021/1) and calculations of the German Centre for Higher Education Research and Science Studies

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<https://www.govdata.de/dl-de/by-nc-1-0>