

# FURTHER GRI INFORMATION

## PRODUCTION, PURCHASING AND SUPPLIER NETWORK

### BMW GROUP CO<sub>2</sub> FOOTPRINT<sup>1</sup>

in t CO <sub>2</sub> / CO <sub>2</sub> e	2017	2018	2019 old	2019	2020 old	2020	2021
Total emission <sup>2</sup>	72,850,724	74,213,402	75,987,119	133,552,843	65,828,005	118,491,889	122,539,929
<b>SCOPE 1: DIRECT GREENHOUSE GAS EMISSION</b>							
Total emission	625,072	581,703	642,259	678,403	642,885	678,967	699,713
BMW Group locations <sup>3,4,5</sup>	529,728	487,249	550,494	586,638	568,538	604,620	631,304 <sup>9</sup>
company vehicles <sup>7,8</sup>	88,782	88,272	85,667	85,667	72,554	72,554	66,442
company-owned planes	6,562	6,182	6,098	6,098	1,793	1,793	1,967
<b>Scope 2: INDIRECT GREENHOUSE GAS EMISSION</b>							
Total emission	510,911	538,622	302,574	354,095	84,257	130,090	134,849
Electricity / heat purchased by BMW Group locations <sup>3,4,5,6</sup>	510,911	538,622	302,574	354,095	84,257	130,090	134,849

<sup>1</sup> Due to the broader definition of Scope 1 and Scope 2 emissions generated by BMW Group locations in the year under report and adjustments to the methodology for calculating use-phase emissions, the years 2019 (base year) and 2020 have been adjusted for comparison purposes. For these reasons, a direct comparison with 2017 and 2018 figures is not possible.

<sup>2</sup> The emissions listed account for approximately 90% of the BMW Group's total Scope 1 to Scope 3 emissions.

<sup>3</sup> Carbon emissions (disregarding climate-impacting gases apart from carbon dioxide) generated by vehicle production (BMW Group plants including the BMW Brilliance Automotive Ltd. joint venture and motorcycle production, but excluding partner plants and contract manufacturing) and by other BMW Group locations not directly related to production (e.g. research centres, sales centres, office buildings).

<sup>4</sup> From 2021, this indicator also includes the carbon emissions generated by other BMW Group locations as well as those relating to production. For comparison purposes, the figures for 2019 (base year) and 2020 have been adjusted accordingly. The figures for 2017 and 2018 are therefore not directly comparable.

<sup>5</sup> Calculation of Scope 1 and Scope 2 emissions, using the operational control approach in accordance with the GHG Protocol. Leased office space without the direct influence of the BMW Group on energy supply is therefore not included.

<sup>6</sup> Scope 2 emissions calculated using the market-based method in accordance with the GHG Protocol Scope 2 guidance; mainly the use of VDA emissions factors and in some cases the use of local emissions factors; alternative calculation using the location-based method: 1,404,348 t CO<sub>2</sub>.

<sup>7</sup> Includes all refuelling of function-label vehicles within Germany and at major international locations (e.g. test sites in the USA, Sweden and France). All refuellings of company vehicles in Germany and, since November 2021, throughout Europe are also included. The latter include both business and private trips, except refuelling paid for privately by employees.

<sup>8</sup> Emissions from company cars (Scope 1) are also included on a pro-rata basis under employee commuting and use phase (both Scope 3). A system-related delimitation is not currently possible.

<sup>9</sup> Biomethane certificates amounting to 164,000 MWh are taken into account in this indicator. This share has reduced carbon emissions by 30,024 metric tonnes.

**BMW GROUP CO<sub>2</sub> FOOTPRINT<sup>1</sup>**

	2017	2018	2019 old	2019	2020 old	2020	2021
<b>SCOPE 3: INDIRECT GREENHOUSE GAS EMISSIONS</b>							
Total emissions	71,714,741	73,093,077	75,042,286	132,520,346	65,100,863	117,682,832	121,705,368
Logistics <sup>4</sup>	1,497,075	1,563,919	1,570,397	1,570,397	1,322,859	1,322,859	1,878,910 <sup>5</sup>
Business trips <sup>6</sup>	169,233	159,039	129,646	129,646	25,217 <sup>2</sup>	25,217	29,765
Employees' commuter traffic <sup>3,7</sup>	140,187	136,608	146,298	146,298	166,586	166,586	139,999
Upstream chain <sup>8</sup>	16,786,192	17,221,109	18,505,921	18,505,921	16,234,959	16,234,959	18,534,765
Utilisation phase <sup>3,9</sup>	51,887,708	52,759,567	53,421,006	110,899,066	46,200,385	98,782,354	99,805,490
Disposal <sup>8</sup>	1,234,346	1,252,835	1,269,018	1,269,018	1,150,857	1,150,857	1,316,438

<sup>1</sup> Due to the broader definition of Scope 1 and Scope 2 emissions generated by BMW Group locations in the year under report and adjustments to the methodology for calculating use-phase emissions, the years 2019 (base year) and 2020 have been adjusted for comparison purposes. For these reasons, a direct comparison with 2017 and 2018 figures is not possible.

<sup>2</sup> Includes all refuelling of function-relabel vehicles within Germany and at major international locations (e.g. test sites in the USA, Sweden and France). All refuellings of company vehicles in Germany and, since November 2021, throughout Europe are also included. The latter include both business and private trips, except refuelling paid for privately by employees.

<sup>3</sup> Emissions from company cars (Scope 1) are also included on a pro-rata basis under employee commuting and use phase (both Scope 3). A system-related delimitation is not currently possible.

<sup>4</sup> Includes both upstream and downstream transportation. Use and modelling of emissions factors primarily in accordance with DIN EN 16258 as well as figures from CleanCargo and JEC5; in some cases, extrapolations have been used for individual months.

<sup>5</sup> Scope expanded to include the Greer packaging plant (South Carolina, USA) to supply production and distribute Rolls-Royce vehicles. The figures for 2021 are therefore not directly comparable with previous years.

<sup>6</sup> Includes air travel, train travel and rental cars.

<sup>7</sup> The figures from 2020 onwards are not directly comparable with previous years due to the improved data basis. In some cases, figures have been extrapolated based on surveys conducted at major national and international BMW Group locations.

<sup>8</sup> Based on life cycle assessments in accordance with ISO 14040/44 of representative vehicles of the product lines using the LCA tool GaBi provided by the company Thinkstep (including the climate-impacting gases CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, SF<sub>6</sub>, NF<sub>3</sub>). Corresponding to the CO<sub>2</sub>e emissions, the life cycle assessments show the energy consumption (lower calorific value): around 86,095,113 MWh in the category "Bought-in goods and services" and around 600,049 MWh in the category "Waste disposal".

<sup>9</sup> Use-phase emissions are based on global average fleet emissions. For definition, see glossary [carbon emissions of new vehicle fleet worldwide, including upstream emissions](#). The calculation is based on an average mileage of 200,000 km.

**ENERGY CONSUMPTION<sup>1,2,3</sup>**

in MWh	2017	2018	2019 old	2019	2020 old	2020	2021
<b>TOTAL ENERGY CONSUMPTION</b>							
Total energy consumption	5,852,666	5,788,965	5,974,625	6,348,009	5,714,610	6,040,824	6,476,955
<b>TOTAL ENERGY CONSUMPTION BY SEGMENT</b>							
Vehicle production	5,362,618	5,169,266	5,226,227	5,226,227	4,946,865	4,946,865	5,329,550
Motorcycle production	95,493	89,300	120,583	120,583	114,072	114,072	125,450
Non-manufacturing areas	394,555	530,399 <sup>3</sup>	627,825	1,001,199	653,673	979,887	1,021,955
<b>TOTAL ENERGY CONSUMPTION BY SOURCE</b>							
Electricity	2,588,409	2,513,308	2,439,675	2,653,855	2,154,899 <sup>4</sup>	2,320,314	2,453,215
Community heating	408,735	395,609	358,992	367,040	266,112	274,484	284,763
Community cooling	1,095	1,072	1,123	33,688	1,113	33,322	31,882
Heating oil	4,450	2,888	2,205	7,760	3,660	9,368	8,908
Natural gas	2,624,557	2,669,457	3,005,902	3,117,505	3,093,542	3,206,948	3,517,068
of which CHP losses	258,380	294,724	412,451	425,796	498,299	498,299	508,318
Biogas (landfill gas)	224,819	205,320	164,957	164,957	192,911	192,911	177,564
of which CHP losses	84,166	86,787	68,560	68,560	65,065	65,065	67,038
Wood pellets	220	220	68	1,501	56	1,161	1,211
Solar (photovoltaics)	381	1,091	1,703	1,703	2,316	2,316	2,344

<sup>1</sup> Energy consumption generated by vehicle production (BMW Group plants including the BMW Brilliance Automotive Ltd. joint venture and motorcycle, excluding partner plants and contract manufacturing) and by other BMW Group locations not directly related to production (e.g. research centres, sales centres, office buildings).

<sup>2</sup> Due to an extension in the reporting scope in the year under report, figures from 2019 and 2020 have been adjusted to enable better comparison. Figures for 2017 and 2018 are therefore not directly comparable.

<sup>3</sup> Upper calorific value.

<sup>4</sup> The decrease was mainly due to the pandemic-related interruption of production at most BMW Group plants.

**TRANSPORT LOGISTICS: CARRIERS AND CO<sub>2</sub> EMISSIONS<sup>1</sup>**

	2017	2018	2019	2020	2021					
<b>INBOUND<sup>2</sup> (MATERIAL PROVISION OF THE PLANTS AND SPARE PARTS DELIVERY)</b>										
Transport volume in million tkm	14,545	14,491	15,634	13,623	23,244					
CO <sub>2</sub> e emissions in t	537,928	589,730	577,077	472,290	820,226					
<b>OUTBOUND<sup>3</sup> (DISTRIBUTION OF VEHICLES AND SPARE PARTS)</b>										
Transport volume in million tkm	25,881	25,777	26,489	23,622	28,497					
CO <sub>2</sub> e emissions in t	959,147	974,189	993,320	850,569	1,058,685					
<b>TOTAL (INBOUND AND OUTBOUND)</b>										
Transport volume in million tkm	40,426	40,268	42,123	37,245	51,741					
CO <sub>2</sub> e emissions in t	1,497,075	1,563,919	1,570,397	1,322,859 <sup>5</sup>	1,878,910 <sup>4</sup>					
<b>PERCENTAGE SHARE OF CARRIERS IN TOTAL (INBOUND AND OUTBOUND) IN TERMS OF TRANSPORT VOLUME AND CO<sub>2</sub> EMISSION</b>										
	tkm	g CO <sub>2</sub> e	tkm	g CO <sub>2</sub> e	tkm	g CO <sub>2</sub> e	tkm	g CO <sub>2</sub> e	tkm	g CO <sub>2</sub> e
Sea in %	75.8	52.9	75.0	50.3	73.0	47.8	74.7	52.0	77.2	51.1
Road in %	17.2	31.7	17.6	31.1	20.1	37.5	17.1	33.6	14.2	27.2
Rail in %	6.3	2.5	6.5	2.3	6.3	2.6	7.7	3.8	7.6	3.8
Air in %	0.7	12.9	0.9	16.3	0.6	12.2	0.5	10.6	1.0	17.9

<sup>1</sup> Use and modelling of emissions factors primarily in accordance with DIN EN 16258 as well as figures from CleanCargo and JEC5; in some cases, extrapolations have been used for individual months.

<sup>2</sup> Figures relate to automobile production (BMW Group including the BMW Brilliance Automotive Ltd. joint venture and partner plants, excluding Rolls-Royce and contract manufacturing) and spare parts deliveries to parts distribution centres.

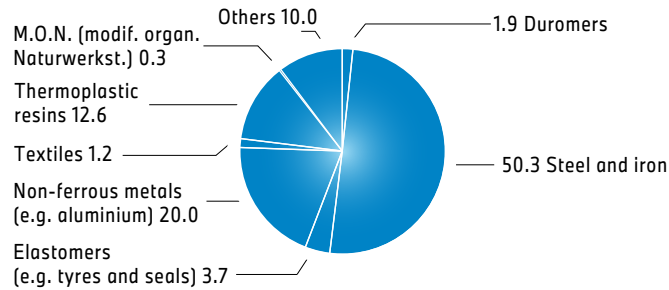
<sup>3</sup> Figures relate to automobile production (BMW Group including the BMW Brilliance Automotive Ltd. joint venture, contract production and parts for partner plants) and spare parts deliveries to distribution centres in markets worldwide as well as to dealerships in certain markets.

<sup>4</sup> Scope expanded to include the Greer packaging plant (South Carolina, USA) to supply production and distribute Rolls-Royce vehicles. The figures for 2021 are therefore not directly comparable with previous years.

<sup>5</sup> The CO<sub>2</sub>e emission values for 2020 are not directly comparable with those of previous years, as the analysis has been expanded to include the local data of suppliers, who are in the production supply for certain plants and in the vehicle transportation to dealers in certain markets as well as the additional volume of part deliveries.

## AVERAGE DISTRIBUTION OF MATERIALS IN BMW GROUP VEHICLES<sup>1,2</sup>

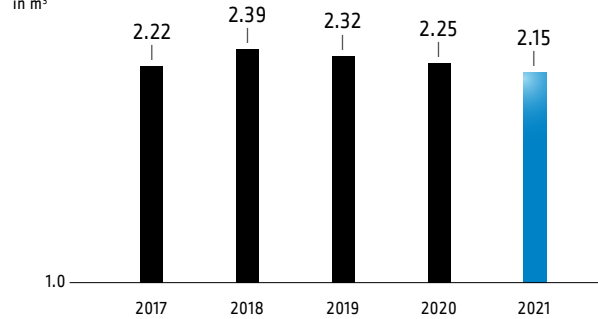
in %



<sup>1</sup> Calculation based on unit-adjusted averages for the BMW 1 Series, 2 Series, 3 Series, 4 Series, 5 Series, 6 Series, 7 Series, 8 Series, X1, X2, X3, X4, X5, X6, X7, Rolls-Royce, MINI, MINI Countryman and the BEV vehicles iX, iX3, i4, i3, MINI E as well as the PHEV variants.

<sup>2</sup> At approximately 2.46 million vehicles, the number produced (BMW Group plants, including the BMW Brilliance Automotive Ltd. joint venture, partner plants and contract production) increased in the year under report compared with the previous year (2020: approximately 2.26 million). Based on an average weight of BMW Group vehicles of approximately 1.8 tonnes, the total weight of input materials is around 4.3 million tonnes. To calculate the individual material flows, the total weight is multiplied by the average distribution of the materials in BMW Group vehicles.

## PROCESS WASTEWATER PER VEHICLE PRODUCED<sup>1</sup>

in m<sup>3</sup>

<sup>1</sup> Efficiency indicator calculated from the amount of water consumed by automobile production (BMW Group plants, including the BMW Brilliance Automotive Ltd. joint venture, excluding partner plants and contract manufacturing) divided by the number of automobiles produced (BMW Group plants, including the BMW Brilliance Automotive Ltd. joint venture and partner plants, excluding contract manufacturing).

## WATER CONSUMPTION<sup>1</sup>

in m <sup>3</sup>	2017	2018	2019	2020	2021
Water consumption	5,073,220	5,425,073	5,417,428	4,722,310	4,924,477
of which drinking water in %	88.0	90.4	87.4	86.3	85.1
of which groundwater in %	11.7	9.6	12.6	13.6	14.6
of which surface water in %	0.3	0.0	0.0	0.0	0.0
of which rainwater in %	0.0	0.0	0.0	0.1	0.3

<sup>1</sup> Water consumed by automobile production (BMW Group plants, including the BMW Brilliance Automotive Ltd. joint venture, excluding partner plants and contract manufacturing).

**WASTE<sup>1</sup>**

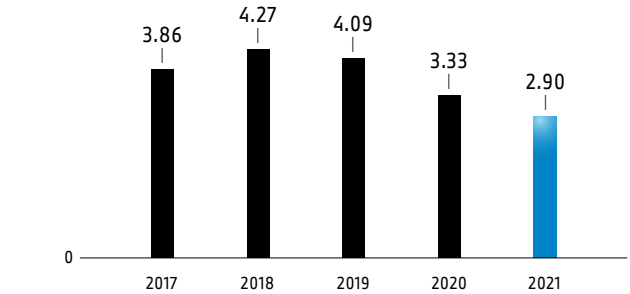
in t	2017	2018	2019	2020	2021
Total waste	785,209	789,817	780,911	775,459	829,498
Materials for recycling <sup>2</sup>	776,179	779,911	771,162	768,292	822,848
Waste for disposal	9,031	9,906	9,749	7,168	6,650

<sup>1</sup> Waste generated by automobile production (BMW Group plants, including the BMW Brilliance Automotive Ltd. joint venture, excluding partner plants and contract manufacturing).

<sup>2</sup> Includes both recycling and thermal utilisation.

**WASTE FOR DISPOSAL PER VEHICLE PRODUCED<sup>1</sup>**

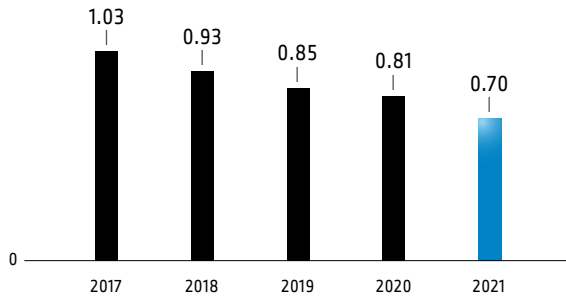
in kg



<sup>1</sup> Efficiency indicator calculated from the waste generated in automobile production (BMW Group plants, including the BMW Brilliance Automotive Ltd. joint venture, excluding partner plants and contract manufacturing) divided by the number of vehicles produced (BMW Group plants, including the BMW Brilliance Automotive Ltd. joint venture and partner plants, excluding contract manufacturing).

**SOLVENT EMISSIONS PER VEHICLE PRODUCED<sup>1</sup>**

in kg



<sup>1</sup> Efficiency indicator calculated from the solvent emissions (VOC) generated in automobile production (BMW Group plants, including the BMW Brilliance Automotive Ltd. joint venture, excluding partner plants and contract manufacturing) divided by the number of automobiles produced (BMW Group plants, including the BMW Brilliance Automotive Ltd. joint venture and partner plants, excluding contract manufacturing).

## SUSTAINABILITY ASSESSMENT OF RELEVANT SUPPLIER LOCATIONS

	2018	2019	2020	2021
Proportion of audited suppliers of production-related material with a contract volume greater than € 2 million <sup>1</sup>	97 %	95 %	98 %	98 %
Number of identified sustainability deficits at potential and existing supplier locations from an ESG perspective	48 %	62 %	64 %	61 %
Number of audits and assessments conducted by or on behalf of the BMW Group <sup>2</sup>	89	105	313	196
Number of supplier locations not awarded contracts because they fail to meet the BMW Group's sustainability or other requirements <sup>1</sup>	193	153	108	81
Number of existing supplier relationships that had to be terminated prematurely due to serious sustainability violations	0	0	0	0
Number of notifications of potential violations of our sustainability principles received through our supply chain reporting channels	9	2	3	8
of which number of notifications that were clarified during the reporting year	9	2	2	8

<sup>1</sup> Basis: Industry-specific sustainability questionnaire.

<sup>2</sup> Includes on-site visits and remote audits.

# EMPLOYEES AND SOCIETY

## EMPLOYEES AT END OF YEAR<sup>1</sup>

	2017	2018	2019	2020	2021
BMW Group	129,932	134,682	126,016	120,726	118,909
Automotive	117,664	121,994	113,719	108,676	106,928
Motorcycles	3,506	3,709	3,503	3,474	3,418
Financial Services	8,645	8,860	8,684	8,473	8,466
Other	117	119	110	103	97
Employees with fixed-term contract <sup>2</sup>	4,685	4,638	3,489	2,892	2,503
Employees in part-time employment <sup>3</sup>	5,553	6,299	6,318	6,433	6,846

<sup>1</sup> The term "employee" has been redefined with effect from the reporting year 2020 (for definition, see [Glossary](#)).

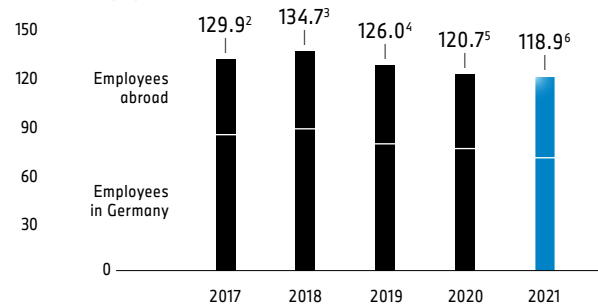
For the period 2018 and earlier, the percentage of employees no longer covered by the new definition is between 7.5% and 8.0%

<sup>2</sup> Around 30,5% of these are women employed at BMW AG. For system-related reasons, this data is only collected for BMW AG.

<sup>3</sup> Permanent and fixed-term employees.

## EMPLOYEES IN GERMANY AND ABROAD<sup>1</sup>

Number of employees in thousands



<sup>1</sup> The term "employee" has been redefined with effect from the reporting year 2020 (for definition, see [Glossary](#)). For the period 2018 and earlier, the percentage of employees no longer covered by the new definition is between 7.5 and 8.0 %.

<sup>2</sup> Of whom 35.7 % are tariff-bound production employees of the BMW Group

<sup>3</sup> Of whom 35.3 % are tariff-bound production employees of the BMW Group

<sup>4</sup> Of whom 38.2 % are tariff-bound production employees of the BMW Group

<sup>5</sup> Of whom 37.9 % are tariff-bound production employees of the BMW Group

<sup>6</sup> Of whom 38.0 % are tariff-bound production employees of the BMW Group



## SHARE OF EMPLOYEES REPRESENTED BY A TRADE UNION OR FALLING UNDER COLLECTIVE AGREEMENTS

in %	2017	2018	2019	2020	2021
Germany <sup>1</sup>	100	100	100	100	100
UK	86	85	85	84	83
China (plant)	100	100	100	100	100
Austria <sup>1</sup>	100	100	100	100	100
South Africa	53	62	59	63	70
USA (no collective agreements exist)	0	0	0	0	0
Mexico <sup>1</sup>	-	-	100	100	100

<sup>1</sup> Excluding executives and contractors. ↗ GRI 102-41

## ALTERNATIVE WAYS OF WORKING AT BMW AG<sup>1</sup>

Number of employees	2017	2018	2019	2020	2021
Part-time workers <sup>2</sup>	4,572	5,000	5,440	5,568	5,951
in % of total number of employees	5.2	5.6	6.6	7.0	7.7
Teleworking position <sup>3</sup>	31,754	34,339	36,208	43,309	41,180
in % of total number of employees	63.3	66.1	70.8	87.2	84.3
Number of employees who use "Vollzeit Select"	4,690	5,508	5,474	4,747	3,736
in % of total number of employees <sup>4</sup>	5.3	6.1	6.6	6.0	4.8
Sabbaticals	567	648	764	653	464
in % of total number of employees	0.6	0.7	0.9	0.8	0.6
Parental leave	3,389	3,675	4,082	4,158	4,211
in % of total number of employees	3.9	4.1	4.9	5.2	5.4

<sup>1</sup> The term "employee" has been redefined with effect from the reporting year 2020 (for definition, see ↗ Glossary).

For the period 2018 and earlier, the percentage of employees no longer covered by the new definition is between 7.5 % and 8.0 %.

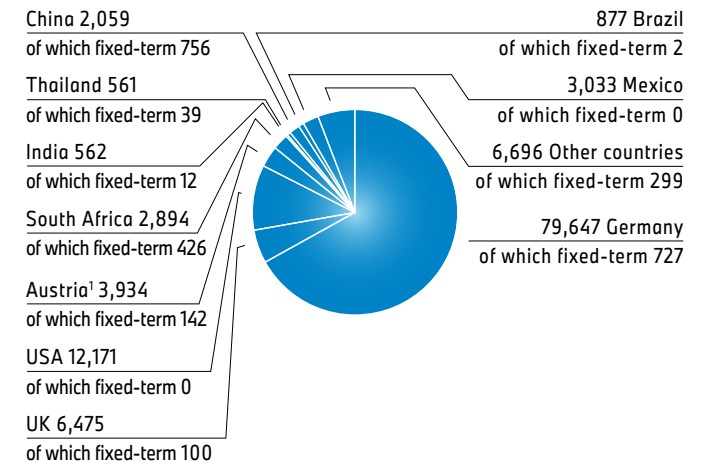
<sup>2</sup> Of which 3,716 were female (62 %). For systemic reasons, this number is only calculated for BMW AG.

<sup>3</sup> Only workers in administrative positions who engaged in teleworking.

<sup>4</sup> Statistical population not including apprentices, interns, thesis students working at the company and doctoral candidates.

## SHARE OF EMPLOYEES PER COUNTRY WITH PRODUCTION LOCATION(S)

Number of employees



<sup>1</sup> Including the Eastern Europe sales region.

## AVERAGE TRAINING HOURS AT THE BMW AG ACADEMY, BY EMPLOYEE CATEGORY

Employee category	2019	2020	2021
Non-tariff employees	16.7	14.1	30.7
"Meister" (master craftsmen)	14.1	21.1	27
Tariff	10.6	7.1	10.8

## TOTAL NUMBER OF EMPLOYEES LEAVING BMW AG, BY REASON FOR LEAVING<sup>1</sup>

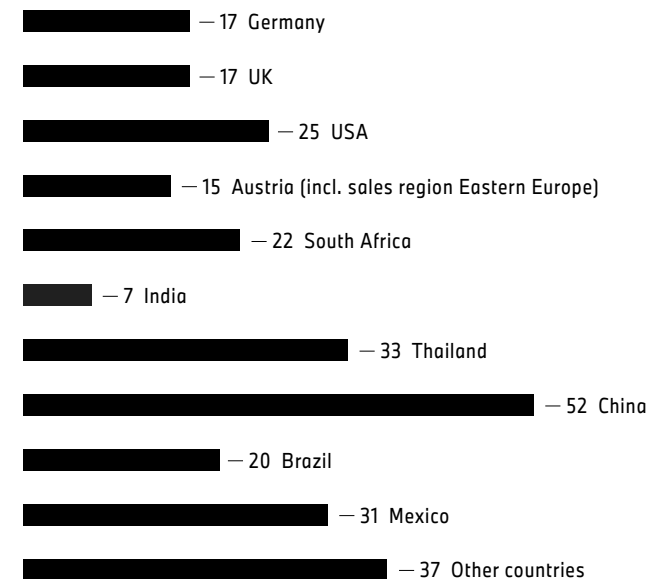
Number	2017	2018	2019	2020	2021
<b>Total</b>	<b>2,077</b>	<b>2,247</b>	<b>2,794</b>	<b>4,535</b>	<b>3,720</b>
Part-time retirement, retirement, death	1,207	1,314	1,700	1,884	1,938
Voluntarily left company (termination or suspension of employment contract by employee)	809	873	1,029	2,601 <sup>2</sup>	1,749 <sup>2</sup>
Dismissed by employer	61	60	65	50	33

<sup>1</sup> Figures refer to employees with permanent contracts.

<sup>2</sup> Increase mainly due to a set of personnel measures.

## SHARE OF WOMEN IN THE WORKFORCE BY COUNTRY WITH PRODUCTION SITE(S)

in %



## SHARE OF LOCAL EMPLOYEES IN MANAGEMENT POSITIONS AT MAJOR COMPANY LOCATIONS <sup>1</sup>

	2017	2018	2019	2020	2021
Germany	99.4	99.5	99.7	99.7	99.8
UK	86.3	86.9	87.5	89.8	89.5
USA	87.7	88.3	87.4	89.1	88.3
Austria	82.8	85.6	82.3	78.7	79.1
South Africa	83.0	82.8	82.7	85.9	85.4
India	70.0	74.4	82.1	68.4	78.4
Brazil	76.1	77.6	78.2	84.9	85.1
China <sup>2</sup>	76.5	76.7	73.7	78.8	82.2
Thailand	56.8	56.8	57.1	57.8	60.0
Mexico <sup>3</sup>	-	-	48.4	62.9	67.8

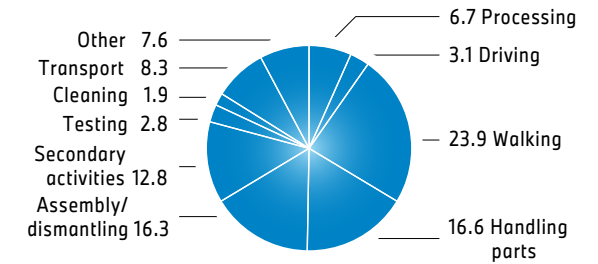
<sup>1</sup> "Local" refers to managers with local contracts. People deployed to work at the location who do not have a local employment contract are not included. These are reflected in the difference to 100 in each case.

<sup>2</sup> Including employees of the joint venture BMW Brilliance Automotive Ltd., Shenyang, which is not consolidated in the BMW Group.

<sup>3</sup> Start of production 06/2019.

## MAIN ACCIDENT FACTORS<sup>1</sup>

in %



<sup>1</sup> The accident severity rate in the reporting year was 66.1 lost days (due to occupational accidents) per 1 million hours worked (2020: 53.4).