

Welcome to your CDP Climate Change Questionnaire 2021

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Bayerische Motoren Werke GmbH came into being in 1917, having been founded in 1916 as Bayerische Flugzeugwerke AG (BFW); it became Bayerische Motoren Werke Aktiengesellschaft (BMW AG) in 1918. The BMW Group has meanwhile become one of the 15 largest car manufacturers in the world. With our BMW, MINI and Rolls-Royce brands, we possess three of the strongest premium brands in the automobile industry. We also command a strong market position in the motorcycle sector and operate successfully in the field of financial services. The Strategy Number ONE adopted in 2007 has put us on the right path to a successful future. Since 2007 and the introduction of Strategy Number ONE, the company has grown to a new level. We have developed successfully from being the leading manufacturer of premium vehicles to becoming the leading provider of premium mobility and services. At the same time, our environment has changed at a rapid pace. Digitalization, in particular, has brought about new technological opportunities for the automobile industry, ranging from automated driving to connectivity and automation in production. In the light of these developments, we have revised and updated our strategy for the future. We are operating from a solid basis: the BMW Group successfully combines financial strength, innovation and profitability with further growth, and we intend to pursue this path further with our BMW Group Strategy. Our business model will continue to focus on sustainable individual mobility in the premium segment – combined with attractive mobility services. This means in particular the electrification of all BMW Group brands and model series. The customer is at the heart of everything we do. With our BMW Group Strategy, we are looking ahead to the year 2025. Long-term thinking and responsible action have long been the cornerstones of our success. Striving for ecological and social sustainability along the entire value-added chain, taking full responsibility for our products and giving an unequivocal commitment to preserving resources are prime objectives firmly embedded in our corporate strategy. For these reasons, the BMW Group is the only company in the automotive sector continuously listed in the Dow Jones Sustainability Indices since 1999.



We don't just do sustainability at BMW: We are making BMW sustainable. Sustainability is a key component of our BMW Group Strategy and makes an important contribution towards our competitive edge. As a premium manufacturer, the BMW Group aspires to lead the way in terms of sustainability. It is therefore taking responsibility and placing this topic at the core of its corporate strategy moving forward. This change has involved taking a major step, as the BMW Group is including sustainability as a prime factor in its corporate decision-making processes. Using a so-called "environment radar" which includes ecological and social criteria, engaging in dialogue with stakeholders, taking sustainability into account in all decisions and keeping a tight watch over the whole value-added chain are key elements of our sustainability management. Corporate sustainability measured in balanced scorecard terms (at Group level) was first included as a formal corporate objective at the beginning of 2009. Detailed targets are then derived for each of the divisions within the Group. Today, every project must be measured in terms of corporate sustainability. This involves measuring the consumption of resources, emission levels as well as the social and socio-political consequences of the various solutions at hand.

The Board of Management works to ensure that the BMW Group Strategy is aligned with sustainability in the long term. In 2019, the special-purpose Sustainability Board was fully involved in regular Board of Management meetings, allowing sustainability issues to be even more consistently integrated into the company's decision-making processes. Since then, sustainability issues have been treated like every other topic and discussed as needed at fortnightly Board of Management meetings. All specific decisions referred to the Board of Management are subject to a mandatory sustainability evaluation. The decisions to be made by the Board of Management are prepared by the Strategy & Structure Circle. This group consists of the top management of the company divisions and also addresses sustainability issues.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	January 1, 2020	December 31, 2020	No

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

- Austria
- Brazil
- China
- Germany

India
Mexico
South Africa
Thailand
United Kingdom of Great Britain and Northern Ireland
United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

EUR

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-T00.7/C-TS0.7

(C-T00.7/C-TS0.7) For which transport modes will you be providing data?

Light Duty Vehicles (LDV)

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board-level committee	<p>i) Explanation The highest level of direct responsibility for climate-related issues is the Board of Management. The Board determines the strategic direction with regard to sustainability topics and climate change. Every document submitted to the Board for decision must include a sustainability assessment of the planned project and / or the alternatives presented for decision.</p> <p>ii) Example of climate-related decisions A recent example of a climate-related decision made by the Board of Management is the commitment to pursue a verifiable and consistent path towards climate neutrality by 2050. In 2020, the Board of Management approved our integrated sustainability strategy, with concrete science-based targets for the first stage up to 2030. We are making BMW sustainable: by drastically reducing the carbon footprint compared to 2019 per vehicle by 2030 - in production by 80 percent, during the use phase by more than 40 percent and in the supply chain by at least 20 percent.</p>

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – all meetings	<p>Reviewing and guiding strategy</p> <p>Reviewing and guiding major plans of action</p>	We selected “scheduled – all meetings” as well as all “governance mechanisms” because it is OBLIGATORY and an integral component for EVERY SUBMISSION to the Board of Management to assess implications on sustainability issues such as resource consumption

	<p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding annual budgets</p> <p>Reviewing and guiding business plans</p> <p>Setting performance objectives</p> <p>Monitoring implementation and performance of objectives</p> <p>Overseeing major capital expenditures, acquisitions and divestitures</p> <p>Monitoring and overseeing progress against goals and targets for addressing climate-related issues</p>	<p>or impact on the environment.</p> <p>According to our vision of being the world’s most successful and sustainable premium provider of individual mobility many decisions are directly or indirectly linked to climate-related issues. Sustainability is a core principle in our BMW Group Strategy and anchored in the strategic approach. When the Board is reviewing and guiding our strategy as well as major plans of actions, business plans, annual budgets or overseeing major capital expenditures, acquisitions and divestitures sustainability plays a key role as part of our strategic approach. This is how the governance mechanisms contribute to the Board’s oversight of climate issues.</p> <p>As a major EXAMPLE we mention our heavy investments in vehicle efficiency, electrification with plug-in hybrid and battery electric vehicles (PHEV / BEV) to support decarbonisation as well as in joint ventures to support market penetration of BEVs. We currently offer 3 BEV and 17 PHEV models with 2 more BEV models to come in 2021. By 2023, we will offer a total of 25 electrified models, more than half of them pure electric. One model is the BMW iX (production start in 2021), which combines electric and Level 3 autonomous driving, high-end connectivity and the interior of the future in a single vehicle for the first time – thereby creating a whole new experience of mobility. By 2025, the proportion of electrified vehicles in the total deliveries is to rise to at least 25 %. By 2030, we plan to have delivered at least seven million electrified vehicles. That is why we are relying on flexible platforms, where customers can choose their drive train (BEV, PHEV, diesel or petrol) to suit their preference. Flexibility is our strategy for ramping up e-mobility, not stand alone electric platforms. All this results e.g. in the reduction of CO2 emissions of our newly sold vehicles in Europe (EU28) by 53 % between 1995 and 2020. Therefore we accomplished our goal to reduce CO2-emissions until 2020, by at least 50 %. CO2-targets are monitored in vehicle markets to reach the increasingly strict regulatory requirements as well as our own ambitious standards. Expanding the charging infrastructure is a fundamental condition for the breakthrough of e-mobility. In founding the IONITY joint venture, the BMW Group together with other OEMs is setting the course for creating a high-performance fast-charging network for electric vehicles in Europe. Therefore some 400 fast-charging stations are build up along major transport</p>
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		routes by 2021. Fast-charging stations make charging up to seven times faster than standard 50 kW stations.
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C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Other C-Suite Officer, please specify Chief Development Officer, Member of the Board of Management of BMW AG, responsible for Development	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly
Other C-Suite Officer, please specify Chief Production Officer, Member of the Board of Management of BMW AG, responsible for Production	Both assessing and managing climate-related risks and opportunities	Half-yearly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

The answer explains (i) where in the organization the position lies, (ii) what the rationale and responsibilities are and (iii) how climate change (CC) related issues are assessed and monitored.

A. “Chief Development Officer”:

(i) The Member of the Board of Management of BMW AG responsible for Development (MBoMD) leads the R&D department. He is accountable for all decisions for the R&D department, based on the strategic orientation and decision framework stipulated at Board of Management (BoM) meetings being the highest body.

(ii) The MBoMD is responsible for all the activities in the R&D department. A key issue is energy consumption and CO2-emissions of BMW Group’s worldwide vehicle fleet. Therefore, a key process entails us defining specific CO2-targets for each product line and each new vehicle project in order to

achieve our strategic targets on vehicle fleet CO₂-emissions as well as all regulatory requirements worldwide. Our Strategy unit is responsible for monitoring and further developing these targets.

The “Complete Vehicle Architecture” unit within the R&D department coordinates the development and implementation of fuel-saving technologies in the individual vehicle projects. This ensures that the market-specific fleet requirements are taken into consideration in the very early stages of vehicle development and are subject to Efficient Dynamics (ED) measures during the development process. Under the term ED, we have been successfully working on reducing fuel consumption and vehicle emissions through the development of highly efficient combustion engines, electrification respectively plug-in hybrid electric vehicles (PHEV) and battery electric vehicles (BEV) or e.g. lightweight construction. Because of the importance of the R&D department, oversight over CC related issues was assigned to the MBoMD. The top decision making bodies such as the “development circle” inside the R&D department are led by the MBoMD. Decisions binding for the R&D department are made there as e.g. Efficient Dynamics measures to reach the vehicle specific CO₂-emission targets.

(iii) The MBoMD monitors CC related issues through the top decision making bodies described above (development circle). All technical issues and all vehicle projects as well as e.g. strategic questions about electrification or digital services are discussed there. Decisions on e.g. strategic targets on vehicle fleet CO₂-emissions to be made in the BoM are analyzed technically and aligned with representatives of the corresponding departments.

B. “Chief Production Officer”:

(i) The Member of the Board of Management of BMW AG production (MBoMP) leads BMW Group Production. He is accountable for all decisions for worldwide production, based on the strategic orientation and decision framework stipulated at BoM meetings being the highest body.

(ii) We are facing the challenge of conserving resources and tackling CC, also very relevant for our production processes. We require a reliable supply of resources for the production of our vehicles, and the energy we consume generates emissions. Therefore, the responsibility for CC also lies with the MBoMP. In recent years, the BMW Group has made a great deal of progress in terms of resource consumption. Between 2006 and 2020, the BMW Group reduced its average resource consumption and emissions generated per vehicle by 56.7 %, an improvement of 6.5 % year on year. In this timeframe, carbon emissions per vehicle produced were reduced even by 78.1 %. Nevertheless, the BMW Group has already set itself the next target: compared to 2019, these emissions levels are to be reduced by a further 80 % per vehicle by 2030. As from 2021, the Group will make the remaining carbon emissions from Scope 1 and Scope 2 completely carbon-neutral by using voluntary offset certificates. The Strategy unit is responsible for monitoring and further developing yearly targets consistent with the overall targets. Together with the planning departments for the production technologies, the contribution for resource efficiency of the production sites respectively the technologies are defined and measures are agreed in terms of a target roadmap until 2030.

(iii) The top decision making body for production that also monitors CC related issues is the “production circle”, led by the MBoMP. Decisions binding for production are made there as e.g. yearly targets or technical measures. Management and control of resource consumption along with identification of potential risks for target achievement form an integral part of environmental management at our plants. The steering function of our international

environmental network controls these measures. In case half year target monitoring shows deviations, countermeasures are defined and decided in the “production circle” to guarantee target achievement.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	Sustainability, including climate-related aspects, has been integrated at all corporate levels of the BMW Group since 2009 as a strategic objective based on specific targets and metrics. Sustainability is therefore an explicit component of the company’s management system. This means that sustainability as a corporate objective is broken down to the level of business areas and divisions. As a result, the personal targets set for managers include sustainability aspects and criteria which have an effect on their performance-based remuneration.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Chief Executive Officer (CEO)	Monetary reward	Emissions reduction target	The compensation of the CEO has two components: Fixed remuneration consists of a base salary (paid monthly) and other remuneration elements as the use of company cars. The variable remuneration comprises a bonus, a Performance Cash Plan (PCP) and share-based remuneration components. The bonus is made up of two components, a corporate earnings-related bonus (30 %) and a personal performance-related bonus (70 %). The personal performance-related bonus is derived in terms of a performance factor. The Supervisory Board sets the performance factor on the basis of its assessment of the contribution of the CEO to

			sustainable and long term oriented business development over a period of at least three financial years. The following citation of our Group report p. 293 explains the criteria for the performance factor: "The criteria include in particular innovation (economic and ecological, for example in the reduction of carbon emissions), the Group's market position compared to its competitors, customer focus, ability to adapt, leadership, corporate culture, promotion of compliance and integrity, contribution to the Group's attractiveness as an employer, progress in implementing the diversity concept, and activities that foster corporate social responsibility."
Board/Executive board	Monetary reward	Emissions reduction target	The compensation of Board of Management members has two components: Fixed remuneration consists of a base salary (paid monthly) and other remuneration elements as the use of company cars. The variable remuneration comprises a bonus, a Performance Cash Plan (PCP) and share-based remuneration components. The bonus is made up of two components, a corporate earnings-related bonus (30 %) and a personal performance-related bonus (70 %). The personal performance-related bonus is derived in terms of a performance factor. The Supervisory Board sets the performance factor on the basis of its assessment of the contribution of the relevant Board of Management member to sustainable and long term oriented business development over a period of at least three financial years. The following citation of our Group report p. 293 explains the criteria for the performance factor: "The criteria include in particular innovation (economic and ecological, for example in the reduction of carbon emissions), the Group's market position compared to its competitors, customer focus, ability to adapt, leadership, corporate culture, promotion of compliance and integrity, contribution to the Group's attractiveness as an employer, progress in implementing the diversity concept, and activities that foster corporate social responsibility."
Executive officer	Monetary reward	Emissions reduction target	Every Board of Management member agrees with its executive officers corporate and divisional targets in terms of balanced scorecards. Examples for divisional targets in the area of climate change are: CO2-emission reductions of the BMW Group fleet; emission, waste, and energy reduction targets for each production site and for the central departments as well as targets regarding external sustainability ratings such as Dow Jones Sustainability Index, FTSE4Good Index, and CDP. Achieving these targets is directly linked to the variable income component.

<p>Management group</p>	<p>Monetary reward</p>	<p>Emissions reduction target</p>	<p>Executive officers agree detailed targets with their respective management group. As an example Senior Vice President "Corporate Strategy", agrees with "Head of Sustainability and Environmental Protection" detailed targets. Some examples are:</p> <ul style="list-style-type: none"> - Further development and implementation of the sustainability strategy in all divisions; - Integration of objectives for the corresponding year in the objective management process for plants; - Assurance of the target achievement concerning sustainability ratings such as Dow Jones Sustainability Index, FTSE4Good Index, and CDP; - Organization of the implementation and maintenance of the BMW Group-wide standardized environmental management system of which one element is our database Ecofacts for all environmental data; - Support and further development of the external international sustainability network. <p>Another example are targets agreed between plant managers and their management group for resource efficiency (e.g. energy consumption per vehicle produced). Achieving these targets is directly linked to the variable income component.</p>
<p>Energy manager</p>	<p>Monetary reward</p>	<p>Efficiency project</p>	<p>Energy management staff has targets corresponding to energy and CO2 emission reduction, depending on their position. These targets are linked to the variable part of their remuneration. The percentage amount in general decreases (in relation to fix parts of remuneration) with decreasing responsibility. Energy managers located in our production sites worldwide as well as in central departments have various targets corresponding to climate change. They have to meet detailed targets derived from the divisional targets measured in balanced scorecard terms (at Group level). One target is for example reducing energy consumption per vehicle produced. This target is broken down to all production sites with various energy managers having their responsibilities and, respectively, their targets. Achieving these targets is directly linked to the variable income component.</p>
<p>Environment/Sustainability manager</p>	<p>Monetary reward</p>	<p>Efficiency target</p>	<p>Environmental and sustainability managers e.g. in our production sites have targets corresponding to climate change, depending on their position. These targets are linked to the variable part of their remuneration which in general decreases (in relation to fix parts of</p>

			<p>remuneration) with decreasing responsibility. Detailed targets are derived from the divisional targets measured in balanced scorecard terms (at Group level). Examples are:</p> <ul style="list-style-type: none"> - Reducing CO2 emissions per vehicle produced; - Reducing energy consumption per vehicle produced; - Targets regarding external sustainability ratings such as Dow Jones Sustainability Index, FTSE4Good Index, and CDP. <p>Achieving these targets and the implementation of measures are directly linked to the variable income component.</p>
All employees	Monetary reward	Efficiency project	<p>The BMW Group has implemented a worldwide employee's idea management system a long time ago. In addition to the permanently active online supported suggestion scheme campaigns have been running to specific subjects, for example energy saving measures. In 2020 about 1,600 ideas were put into practice, resulting in savings of EUR 18.2 million, partially resulting lower levels of energy consumption and CO2-emissions. Implemented improvement ideas result in a bonus paid to the employee, which is proportional to the amount of qualitative benefits (e.g. improved air quality or ergonomics) as well as cost savings.</p>
All employees	Non-monetary reward	Efficiency project	<p>(Sustainability and carbon saving related) Target achievement is one main criterion for the annual, individual performance appraisal and therefore does not only influence the pay out of the personal bonus but the future career of each individual as a whole.</p>

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	2	In line with BMW Group's internal management system, the outlook of BMW Group's annual report covers a period of one year. Opportunities and risks are assessed in the internal risk report and in the risk report of the annual report with respect to a period including the current business year and the two following years.
Medium-term	2	6	BMW Group's corporate planning considers two time periods, the so called "long-term planning" and the "prolonged long-term planning". Our "long-term planning" includes the detailed planning of the next six years following the current business year. We understand this as medium-term horizon in the sense of CDP.
Long-term	6	12	BMW Group's corporate planning considers two time periods, the so called "long-term planning" and the "prolonged long-term planning". Our "prolonged long-term planning" includes the timespan of an additional six years. We understand this as long-term horizon in the sense of CDP.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

The scope of climate change related risks and opportunities (CCR&O) identification and management includes BMW Group-wide direct physical risks and opportunities (R&Os) as well as indirect R&Os, e.g. from regulation and changing consumer behavior. The results of the environmental risk management process are part of the regular reporting to the Board of Management / Supervisory Board, at least twice a year and regularly for risks with significant impact for the short-term horizon.

i) Definition of substantive financial or strategic impacts:

Substantial financial or strategic impact is defined as risks with medium and high risk amounts. Risk / opportunity is defined as any event which might occur with a certain probability that could have a negative / positive impact on the achievement of targets. Main targets are growth, profitability, efficiency and sustainable levels of business. Materiality for prioritization is measured as amount of risk (average negative impact on earnings),

including climate change related risks, for profit/loss and cash flow as well as image / reputation by the magnitude of impact and likelihood of occurrence. The amount of risks is classified as low (EUR 0-50 million), medium (EUR >50-400 million) and high (EUR >400 million).

ii) Quantifiable indicators to define substantive financial or strategic impact

The amount of risks is classified as low (EUR 0-50 million), medium (EUR >50-400 million) and high (EUR >400 million). CCR&O are allocated to categories (regulatory, reputational, shifts in customer demand, operational, physical). Risk catalogues help the risk management network representatives to reflect / categorize and aggregate all CCR&O. All locations (plants, logistic issues etc.) are considered as well as risks in the supply chain. Important weather-related risks considered are flooding, tornados, hail or interruption of supply chains due to climate changes / availability of water. Assessment, evaluation and prioritization of CCR&Os is supported by a team of risk / insurance managers and external expertise (e.g. Allianz, Munich Re). Physical risks are covered by insurances and are part of the annual reassessment with our insurance companies. Short-term risks reported to the centralized risk management from the network are aggregated / prioritized and reported to the Board of Management / Supervisory Board. In strategic planning material short- to long-term CCR&O are reflected.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term

Medium-term

Long-term

Description of process

i) Process to identify substantive climate-related risks and opportunities

The BMW Group considers our worldwide operations within the identification process of risks / opportunities driven by climate parameters. On a market level, climate change related risks and opportunities (CCR&O) are ongoing monitored with a short-, medium- and long-term time horizon.

The results of the environmental risk management process are part of the regular reporting to the Board of Management / Supervisory Board, at least twice a year and regularly for risks with significant impact in the short-term horizon.

BMW Group's process of assessing, identifying, monitoring and steering CCR&O is part of A) the enterprise risk management process (ERMP), integrated in B) the Strategy & Structure Circle resp. Board of Management (BoM) & part of C) the management process established to ensure the reduction of CO2 emissions of BMW Group's vehicle fleet.

A) ERMP comprises early identification of R&Os, their measurement, management and monitoring in a decentralized structure. Within this internal risk management network covering all organizational levels, dedicated managers are responsible for reporting and managing CCR&O. The results of the ERMP are reported to a steering committee which prioritizes R&Os (CCR&O) reported to the Board of Management.

B) In the Strategy & Structure Circle (consisting of the top management of the company divisions) tasks and measures for the climate protection strategy of the BMW Group are discussed and proposed to the Board of Management, setting the strategic course including sustainability issues.

C) The fleet CO2 strategy, corresponding targets for each vehicle project and their fulfilment are set and monitored by corporate planning, which reports directly to the Board of Management. CO2 targets are refined and adjusted in line with new regulations and alterations in demand and offer of new cars.

Assessment of CCR&Os at plant level and relevant central department units is carried out in terms of the ERMP by the responsible network managers. Audits for ISO14001, in place in all plants and relevant central units, verify our "on-site" CCR&O assessment and monitoring processes regularly.

These processes ensure that we identify substantive climate-related risks which are defined as risks with medium (EUR >50-400 million) and high risk amounts (EUR >400 million).

ii) Case study for physical risks:

a) Physical risks from weather extremes.

For production a major physical risk could arise from weather extremes such as extreme temperatures that could cause interruptions, e.g. due to water scarcity. BMW Risk Management uses a comprehensive risk catalogue which covers potential CCR&O and thus ensures that significant CCR&O are assessed, reported and validated in the BMW Group risk management process. In the internal risk catalogue CCR&O of “acute physical” and “chronic physical” are included in the risk category “external / global environment; environment; natural risks”, CCR&O of “upstream” are also included in the risk category “product development and manufacturing; procurement / purchasing / foreign production”. Risks related to water depend mainly on local conditions. BMW Group uses a tailor-made natural catastrophes risk analysis tool to evaluate our / supplier locations worldwide. Depending on the exact geographical position all risks are analyzed for hazards like flood, storm, extreme temperatures etc.

To mitigate production risks and leverage opportunities BMW Group’s Strategy unit is developing measures with affected departments.

Resulting strategic options and measures are put forward to the Board of Management for decision. The Strategy & Structure Circle consists of the top management of the company’s divisions and prepares the decisions made by the Board of Management.

Specific examples are targets for resource efficiency (e.g. a 45 % reduction in energy or water consumption from 2006 to 2020), targets for the use of renewable energies or implementation of environmental management systems in all sites worldwide.

b) Physical risks in supply chain.

Similar physical risks could arise in BMW Group’s supply chain. Due to our global supplier network (about 12,000 Tier 1 suppliers of production material and an exponentially increasing number of Tier n suppliers) supply shortages could arise in several regions worldwide and affect BMW Group sites.

We apply a three step risk management and mitigation approach: Identification and analysis of locations of potential high-risk suppliers using a risk filter (and further tools), media screening and an industry-wide questionnaire (step 1). Execution of audits and assessments on the basis of the results of the industry-wide questionnaire as well as agreement on corrective measures (e.g. in case potential production material suppliers have not already implemented a certified environmental management system) (step 2). Review and certification of selected supplier locations using the industry-wide sustainability questionnaire, independent sustainability audits or BMW Group sustainability assessments, supplier training as well as performance monitoring of / engagement with key suppliers / supply chains (e.g. through CDP’s Supply Chain program) (step 3).

iii) Case study for transitional risks

Transitional risks can derive from regulation or leverage opportunities for new products, e.g. from upcoming regulations or shift in consumer preferences.

BMW Group’s Strategy unit is responsible for monitoring and further developing targets on vehicle fleet CO2-emissions to meet all regulatory requirements worldwide as well as to shape transformation with attractive, electrified products and innovative mobility services. These targets and corresponding measures together with an assessment of financial implications are aligned within the affected departments and discussed in the Product & Customer Circle (senior vice president level) and then brought to the Board of Management as highest body for decision. The “Complete Vehicle Architecture” unit within the R&D department coordinates the development and implementation of fuel-saving technologies in the individual vehicle projects to achieve the CO2-targets and to leverage business opportunities with new products and services.

For example, as a result of this management process it was decided to launch eleven further models featuring hybrid technology, namely in the series BMW X1, X2, X3 and the BMW 3 Series. Additional hybrid variants of the BMW 5 Series were also added to the product range. Two additional all-electric models are added with the MINI Cooper SE and the BMW iX3. At the end of 2020, our vehicle portfolio included 20 electrified models in various segments, thereof 3 BEV and 17 PHEV models. Two more BEV models will be available from 2021 and by 2023, we will offer a total of 25 electrified models, more than half of them pure electric.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	<p>RELEVANCE: Climate-related risks from current regulation are generally relevant for BMW Group and the automotive industry as a whole. More specifically, the tightening of current climate-related regulation can include risks for BMW.</p> <p>COMPANY SPECIFIC EXAMPLE OF RISK TYPE: A company specific example is the introduction of increased taxation schemes. Taxation is directly related to the total cost of ownership (TCO) for the customer. If the vehicles of a car manufacturer are especially negatively affected by an</p>

		<p>increased taxation scheme this will impact the purchase decision. The risks are sector specific, but possess an increased risk level for the BMW Group as premium car manufacturer (e.g. cars with larger engine sizes).</p> <p>E.g. in the French bonus / malus taxation scheme the values increased again in 2020 when compared to 2018 (e.g. the malus for a vehicle emitting more than 185 g CO2/km (WLTP: 212 g CO2/km) increased from EUR 10,500 in 2018 to EUR 20,000 in 2020).</p> <p>Another example is that a couple of EU-markets focus their incentives on BEV and no longer on PHEVs (e.g. France, UK) with potential negative impact on our future PHEV sales (2020: 148,121 PHEV worldwide).</p> <p>In a similar way nearly all of our worldwide passenger car sales are affected by emission taxation and regulation schemes. If these are changed with negative impacts on sales figures as this could e.g. be the case for our PHEV offers it might result in a decrease in sales volume. E.g., a drop in sales of 1 % might have an estimated impact between EUR 150 and 250 million gross profit, depending on the models affected.</p> <p>INCLUSION:</p> <p>BMW Group Risk Management uses a comprehensive risk catalogue with experts of the risk categories responsible for validation of their risk categories. The risk catalogue also covers potential climate-related risks and thus ensures that significant climate-related risks are assessed, reported and validated in the BMW Group risk management process. In the internal risk catalogue climate-related risks of “current regulation” are included in the risk categories “external / global environment; new regulations” for tightening of current regulation or “product development and manufacturing; product introduction” if current regulation exposes risks in the homologation and production of vehicles.</p>
Emerging regulation	Relevant, always included	<p>RELEVANCE:</p> <p>Climate-related risks from emerging regulation are generally relevant for BMW Group and the automotive industry as a whole.</p> <p>COMPANY SPECIFIC EXAMPLE OF RISK TYPE:</p> <p>The introduction of new climate-related regulation, mostly for CO2 or local emissions can include risks for BMW. For example, local restrictions affecting product usage in specific sectors may limit our sales in individual markets. More specifically we face risks as provider of premium mobility. Regulators could propose uneven load distribution to meet regional fleet targets. At the same time BMW Group as premium manufacturer has to meet high quality and comfort</p>

		<p>demands of their customers. A deciding factor in achieving e.g. a post 2021 target of EU28 is the success of e-mobility. However, the framework conditions have not yet been solidified in the majorities of states and cities. The uncertainty of regulations regarding incentives for the accelerated introduction of alternative drive vehicles and the available charging infrastructure have major influence on the volatility of the e-mobility business case. The development of market shares for battery electric and plug-in hybrid electric vehicles are not yet easily predicted. The uncertainty about stronger limits in the future and the possibility of low emission zones with stricter limits constitutes a risk. This may affect local demand for our vehicles and hence have a negative impact on sales, margins and, possibly, the residual value of these vehicles. E.g. a drop in sales of 1 % might have an estimated impact between EUR 150 and 250 million gross profit, depending on the models affected.</p> <p>INCLUSION: BMW Group Risk Management uses a comprehensive risk catalogue with experts of the risk categories responsible for validation of their risk categories. The risk catalogue also covers potential climate-related risks and thus ensures that significant climate-related risks are assessed, reported and validated in BMW Group’s risk management process. In the internal risk catalogue climate-related risks of “emerging regulation” are included in the risk categories “external / global environment; new regulations” for new regulation which limit the use of BMW Group vehicles or “product development and manufacturing; product introduction” if emerging regulation exposes risks in the homologation and production of vehicles.</p>
Technology	Relevant, always included	<p>RELEVANCE: Climate-related risks from technology are generally relevant for BMW Group and the automotive industry as a whole.</p> <p>COMPANY SPECIFIC EXAMPLE OF RISK TYPE: Climate change (CC) is a driving force for transformation of the automotive industry. Electrification is a priority area in our BMW Group Strategy, which provides us with a strategic roadmap up to 2025. We are monitoring technological improvements, e.g. the development of battery cells. A potential risk could be that competitors gain a competitive advantage by finding better technology solutions. Further risk could emerge from the complexity of such new technologies and its handling which could lead to increased development / quality costs. However, with 2 BEV and 11 PHEV models launched in 2020, our vehicle portfolio included 20 electrified models in various segments. In 2020 we sold 192,662 BEVs and PHEVs, about 8 % of our total sales volume, and led e.g. the global PHEV sales since 2017– and not just the premium</p>

		<p>segment. Due to our strong position in e-mobility and corresponding technologies we see CC driven technological changes as an opportunity rather than a risk. To sustain our leading role, we concentrate all our technological expertise relating to battery cells at our battery competence centre in Munich (Germany), where we began pooling our experience and comprehensive expertise in 2019. The centre aims to make advances in battery cell technology and the production processes. BMW Group intends to increase the potential range of its electrified vehicles by 2030 by continuing to develop its battery cells, modules and systems. The centre represents the entire value chain of the battery cell technology – from R&D, through to the composition and design of the battery cells to recycling. The BMW Group has invested a total of EUR 200 million in the competence centre and employs 200 people here.</p> <p>INCLUSION: BMW Group Risk Management uses a comprehensive risk catalogue with experts of the risk categories responsible for validation of their risk categories. The risk catalogue also covers potential climate-related risks and thus ensures that significant climate-related risks are assessed, reported and validated in the BMW Group risk management process. In the internal risk catalogue climate-related risks of “technology” are included in the risk category “product development and manufacturing” for risks in the homologation process and necessary changes for the production planning of vehicles.</p>
Legal	Relevant, always included	<p>RELEVANCE: Climate-related legal risks are generally relevant for BMW Group and the automotive industry as a whole. Potential risks in that category are related to compliance with the law - a basic prerequisite for our success. Applicable law provides the binding framework for the BMW Group’s worldwide activities. As a result of its global operations, we are exposed to various legal risks, including those related to climate-related regulations.</p> <p>COMPANY SPECIFIC EXAMPLE OF RISK TYPE: A Compliance Management System is in place at BMW Group to ensure that the representative bodies, managers and staff consistently act in a lawful manner (BMW Group Report 2020, p. 58-62). A company specific example for this risk type related to climate change is the discussion around diesel engine exhaust emissions and its future. Since 2015, the discussion has led to ongoing criticism, especially in Europe and the USA. In the course of this discussion, the impression was often created that almost all manufacturers had manipulated exhaust values. At the BMW Group, there are no activities or technical provisions that influence the test mode for recording emissions. We have a corresponding Compliance Management System to ensure that legal requirements are met and risks e.g. from legal prosecutions related to individual</p>

		<p>or organizational misbehavior towards emissions regulations are minimized. In 2020, the new function Technical Compliance was established to manage especially these risks. Our personnel expenses (2020: EUR 12,244 million) cover many full-time employees being part of our worldwide compliance system.</p> <p>We believe modern diesel cars continue to have a future. Diesel engines emit 15 % less CO2 on average than petrol engines and can thus make an important contribution to achieving national and international CO2 reduction goals.</p> <p>INCLUSION: BMW Group Risk Management uses a comprehensive risk catalogue with experts of the risk categories responsible for validation of their risk categories. The risk catalogue also covers potential climate related risks and thus ensures that significant climate-related risks are assessed, reported and validated in the BMW Group risk management process. In the internal risk catalogue climate-related risks of “legal” are included in the risk category “litigations and contractual or compliance cooperation’s violation”.</p>
Market	Relevant, always included	<p>RELEVANCE: Climate-related market risks are generally relevant for BMW Group and the automotive industry as a whole.</p> <p>COMPANY SPECIFIC EXAMPLE OF RISK TYPE: More specifically changes in customer behavior, which can also be brought about by changes in attitudes, values, environmental factors and fuel or energy prices or political and public discussions can pose risks to BMW Group. A company specific example is around the political and public discussion on diesel engines. In the course of this discussion, the impression was often created that almost all manufacturers had manipulated exhaust values. At the BMW Group, there are no activities or technical provisions that influence the test mode for recording emissions.</p> <p>We offer our customers the power of choice. That means, customers choose the vehicle segment that best suits their living environment – we provide the right drivetrain to go with it. The popular BMW X3 is a good example of this. Four different drivetrain variants are offered: efficient diesel and petrol, plug-in hybrid and pure electric. Mobility needs will continue to vary around the world and from region to region – in some cases, significantly. Diesel engines e.g., being one of the optional drivetrains BMW offers, emit 15 % less CO2 on average than petrol engines. Modern Euro 6 diesel vehicles and further electrification will be crucial in achieving national and international CO2 reduction goals.</p> <p>However, the political and public discussions on diesel engines caused considerable uncertainty among customers and</p>

		<p>therefore adversely affect demand for diesel vehicles. BMW and MINI diesel sales were declining as of December 2020 by 21.1 % worldwide year-on-year. Over the same period, sales of electrified drive trains increased worldwide by 31.8 %.</p> <p>INCLUSION: BMW Group Risk Management uses a comprehensive risk catalogue with experts of the risk categories responsible for validation of their risk categories. The risk catalogue also covers potential climate-related risks and thus ensures that significant climate-related risks are assessed, reported and validated in the BMW Group risk management process. In the internal risk catalogue climate-related risks of “market” are included in the risk category “customer (market, after sales and product related services”).</p>
<p>Reputation</p>	<p>Relevant, always included</p>	<p>RELEVANCE: Climate-related reputation risks are generally relevant for BMW Group and the automotive industry as a whole. Climate-related reputation risks are often closely linked to other climate-related risks.</p> <p>COMPANY SPECIFIC EXAMPLE OF RISK TYPE: Introduction of new climate-related regulation, mostly for CO2 or local emissions, can induce reputation risks specific for the BMW Group as premium manufacturer. We have to meet high quality and comfort demands of our customers. Regulators could propose uneven load distributions to meet regional fleet targets. If we would not be able to comply with CO2-emission targets as e.g. post 2021 EU28 CO2-emission targets (2020: 39 % of BMW Group cars are sold in EU 28) we could face negative press with corresponding negative impact on our reputation and customer churn in addition to potential penalties. Consequently, benefits on continental or national levels might drop, resulting in an impact on the overall annual result. E.g., a drop in sales of 1 % might have an estimated impact between EUR 150 and 250 million gross profit, depending on the models affected.</p> <p>However, BMW Group increases continuously the CO2 efficiency of its vehicles. Since 2007, BMW Group’s Efficient Dynamics (ED) is a comprehensive technologic approach. It includes Efficient Dynamics technologies such as highly-efficient automobiles with gradually refined combustion engines, lightweight construction, improved aerodynamics and coordinated energy management as well as plug-in hybrids and battery electric vehicles.</p> <p>INCLUSION:</p>

		<p>BMW Group Risk Management uses a comprehensive risk catalogue with experts of the risk categories responsible for validation of their risk categories. The risk catalogue also covers potential climate-related risks and thus ensures that significant climate-related risks are assessed, reported and validated in the BMW Group risk management process including their reputational effects. Additional to financial risks, significant reputational risks (including those stemming from financial risks) are reported at least twice a year to the risk management steering committee and the Board of Management. These include risks related to climate.</p>
<p>Acute physical</p>	<p>Relevant, always included</p>	<p>RELEVANCE: Acute climate-related physical risks are generally relevant for BMW Group and the automotive industry as a whole. Especially if the number of natural catastrophes rises, BMW Group could be affected both on the demand and production side.</p> <p>COMPANY SPECIFIC EXAMPLE OF RISK TYPE: On the one hand natural disasters could have a lasting negative impact on the global economy and international capital markets. As another example related production stoppages and downtimes represent risks which the BMW Group addresses through appropriate precautions. These risks vary widely with the degree of damage. E.g. a tornado could damage the BMW Group plant Spartanburg (USA) and cause a breakdown of production up to 12 months. This would represent a damage in the amount of up to EUR 5 billion. However, due to our flexible production system we can shift volumes between plants and / or we can catch up lost volumes in the affected plant itself. In combination with our worldwide insurance solution possible financial implications can be reduced to a large extent.</p> <p>INCLUSION: BMW Group Risk Management uses a comprehensive risk catalogue with experts of the risk categories responsible for validation of their risk categories. The risk catalogue also covers potential climate-related risks and thus ensures that significant climate-related risks are assessed, reported and validated in the BMW Group risk management process. In the internal risk catalogue climate-related risks of “acute physical” are included in the risk category “external / global environment; environment; natural risks”.</p>

<p>Chronic physical</p>	<p>Relevant, always included</p>	<p>RELEVANCE: Chronic climate-related physical risks are generally relevant for BMW Group and the automotive industry as a whole. If economic and living conditions worsen, e.g. through water shortages, BMW Group could be affected both on the demand and production side.</p> <p>COMPANY SPECIFIC EXAMPLE OF RISK TYPE: On the one hand worsening living and economic conditions and potential international conflicts arising out of consequential migration movements could have a lasting negative impact on the global economy and international capital markets. As another example production stoppages and downtimes e.g. due to water shortages represent risks, even though BMW Group production sites are planned accordingly to avoid such risks. These risks vary widely with the interruption duration. E.g. a one week breakdown of production of our Rosslyn site (South Africa) located in a region with water stress could lead to an estimated impact between EUR 10 and 15 million gross profit (inherent risk before mitigation). However, due to our flexible production system we can shift volumes between plants and / or we can catch up lost volumes in the affected plant itself. In combination with our worldwide insurance solution possible financial implications can be reduced to almost zero.</p> <p>INCLUSION: BMW Group Risk Management uses a comprehensive risk catalogue with experts of the risk categories responsible for validation of their risk categories. The risk catalogue also covers potential climate-related risks and thus ensures that significant climate-related risks are assessed, reported and validated in the BMW Group risk management process. In the internal risk catalogue climate-related risks of “chronic physical” are included in the risk category “external / global environment; environment; natural risks”.</p>
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C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Emerging regulation

Mandates on and regulation of existing products and services

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

(i) CLEAR DESCRIPTION: Emission regulations (e.g. EU28, USA or China) are implemented and challenge car manufactures to adapt their products to meet these standards (lower emission figures) over time, e.g. the EU CO2-Regulation demands a value of 95 gCO₂/km for the year 2021. Further, the trend towards megacities and the overall traffic and emission situation within those cities will probably lead to a growing number of low emission zones in urban areas, in which only vehicles, that meet strict emission requirements, will be allowed to enter. For car manufacturers these regulatory risks may inhibit the need for significant short-term investments to avoid risks such as payments of penalties or effects on local demand for the BMW Group vehicles up to loss of allowances to offer individual mobility at all (strict emissions zones), with negative impact on sales or margins of these vehicles.

(ii) COMPANY-SPECIFIC EFFECT: The risks from air pollution limits exist for all members of the automotive sector. BMW Group faces risks as provider of premium mobility: Regulators (e.g. in EU, USA, China) could propose uneven reduction requirements to meet regional fleet targets. BMW Group as premium manufacturer has to meet high quality and comfort demands of their customers. To achieve e.g. the 95 g/km target of

EU28 we need a significant share of electrified vehicles. However, the framework conditions for e-mobility have not yet been solidified in the majorities of states and cities. The uncertainty of regulations regarding incentives for the accelerated introduction of alternative drive vehicles (granting super credits for fleet limits, user benefits in urban areas, taxation etc.) and the available charging infrastructure have major influence on the volatility of the e-mobility business case and vehicle sales. Furthermore, short term regulatory changes against our expectations such as tightened emission limits or introduction of new low-emission or prohibited zones could reduce the product portfolio in some world regions offered to customers. Those effects entail the risk of a decline in vehicle sales and margins.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

150,000,000

Potential financial impact figure – maximum (currency)

250,000,000

Explanation of financial impact figure

Nearly all of our worldwide passenger car sales are affected by emission taxation and regulation. If the taxation or regulation is changed on a short notice (1-2 years) adversely to expectations it might result in a decrease of sales volume. Consequently, benefits on continental or

national levels might drop, resulting in an impact on the overall annual result. E.g., BMW sales totalled to 2,325,179 units in 2020. A drop in sales of 1 % might have an estimated impact between EUR 150 and 250 million gross profit, depending on the models affected. The figures depend on the regional changes in taxation and regulations and the models hereby affected.

Cost of response to risk

6,279,000,000

Description of response and explanation of cost calculation

CASE STUDY:

Emission regulations are implemented and challenge car manufactures to adapt their products to meet these standards (lower emission figures) over time. Further, the trend towards megacities and the overall traffic and emission situation within those cities will probably lead to a growing number of low emission zones in urban areas, in which only vehicles, that meet strict emission requirements, will be allowed to enter.

Regulations are monitored on a regular basis.

We anticipate uncertainty in future taxation systems by increasing the CO₂ efficiency of our vehicles. BMW Group's Efficient Dynamics (ED) is a comprehensive technologic approach. It includes Efficient Dynamics technologies (e.g. gradually refined combustion engines) as well as PHEVs and BEVs.

In order to cope with regulations BMW Group invests into R&D to increase CO₂-efficiency. CO₂ management is included in the corporate strategy (target setting, monitoring) and the product development process. We invest major budgets in CO₂-reduction ED technologies each year. The mild hybrid technology with a 48-volt electrical system is rolled out gradually for our diesel and petrol engines in all series. This will help to further reduce the CO₂ emissions of our conventional drive vehicles by 5 to 7 %.

Artificial intelligence (AI) can also contribute to cutting carbon emissions and vehicle fuel consumption. The BMW Group is conducting research into how AI could make energy management in vehicles adaptive, enabling energy consumption to be modified to suit the needs of the driver and further improve energy efficiency.

Furthermore, we invest a significant share of the R&D expenditure in PHEVs / BEVs. Our portfolio will contain 25 electric vehicles in 2023, more than half being BEVs. In 2020 we launched eleven further models featuring hybrid technology and added two additional all-electric models. At the end of 2020, our vehicle portfolio included 20 electrified models in various segments, thereof 3 BEV and 17 PHEV models. Two more BEV models will be available from 2021, the BMW i4 and the BMW iX. E.g. in EU28 we reduced fleet CO₂-emissions by 53 % between 1995 and 2020.

Explanation: COST OF MANAGING THE RISK

The cost of management is set equal to R&D expenditures in 2020 (EUR 6.279 billion). Due to competitive advantage issues we are not able to give here exact numbers but state that ED technologies / electrification took a significant share of the 2020 R&D expenditure.

Comment

n/a

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Market

Changing customer behavior

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

(i) CLEAR DESCRIPTION: Additional regulations focus on the taxation of the vehicles in the markets. Taxation is directly related to the total cost of ownership (TCO) for the customer. If the vehicles of a car manufacturer are especially negatively affected by an increased taxation scheme this will impact the purchase decision.

The primary market risk driver is therefore a CO₂-regulation induced customer preference.

(ii) COMPANY-SPECIFIC EFFECT: The risks are sector specific, but possess an increased risk level for the BMW Group as premium car manufacturer (e.g. cars with larger engine sizes). If the BMW Group products are negatively affected by an increased taxation scheme this will impact the purchase decision. Examples for the BMW Group on vehicle level: the values of the French bonus / malus scheme valid in 2020

increased again when compared to previous years (e.g. the malus for a vehicle emitting more than 185 g CO₂/km (WLTP 212g CO₂/km) increased from EUR 10,500 in 2018 to EUR 20,000 in 2020). For the future we expect further tightening of such systems. A couple of EU-markets focus their incentives on BEV and no longer on PHEVs (e.g. France, UK). A concrete example is the UK Plug-in grant that has been removed in October 2018, leading to a noticeable decrease in PHEV sales in this market. For the BMW Group the compliance with existing legislation and regulation is a basic requirement for the sale of vehicles and profitability of the company. The BMW Group's specific risks regarding emission regulation have been minimized by BMW Groups anticipation of future limits and the implementation in the Efficient Dynamics strategy. This resulted in the actual product portfolio with highly efficient vehicles in the premium segment. Nevertheless, the uncertainty about future tax schemes negatively affecting the BMW Group portfolio constitutes a risk to the BMW Group.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

150,000,000

Potential financial impact figure – maximum (currency)

250,000,000

Explanation of financial impact figure

Nearly all of our worldwide vehicle sales are affected by emission taxation / regulation. If taxation is changed on a short notice (1-2 years) adversely to expectations it might result in a decrease of sales volume because e.g. taxation is directly related to the total cost of ownership (TCO) for the customer. If the vehicles of a car manufacturer are especially negatively affected by an increased taxation scheme this will impact the purchase decision.

Consequently, benefits on continental or national levels might drop, resulting in an impact on the overall annual result. E.g., BMW sales totalled to 2,325,179 units in 2020. A drop in sales of 1 % might have an estimated impact between EUR 150 and 250 million gross profit, depending on the models affected. The figures depend on the regional changes in taxation and regulations and the models hereby affected.

Cost of response to risk

6,279,000,000

Description of response and explanation of cost calculation

CASE STUDY:

Additional regulations focus on the taxation of the vehicles in the markets. Taxation is directly related to the total cost of ownership (TCO) for the customer. If the vehicles of a car manufacturer are negatively affected by an increased taxation scheme this will impact the purchase decision.

Taxations are monitored on a regular basis.

We anticipate uncertainty in future taxation systems by increasing the CO₂ efficiency of our vehicles. BMW Group's Efficient Dynamics (ED) is a comprehensive technologic approach. It includes Efficient Dynamics technologies (e.g. gradually refined combustion engines) as well as PHEVs and BEVs. These measures taken by the BMW Group to reduce fleet-wide carbon emissions are having a marked effect. The increased share of electrified vehicles delivered and the rigorous use of ED technologies have enabled the BMW Group to reduce the EU28 fleet CO₂-emissions by 53 % between 1995 and 2020 and achieve the stipulated fleet CO₂ limit for 2020, based on regulatory requirements.

In order to cope with regulations we included CO₂ management in our BMW Group Strategy and invest each year major budgets into ED technologies and R&D to increase CO₂-efficiency. The mild hybrid technology with a 48-volt electrical system is rolled out gradually for our conventional drive vehicles and will help reduce CO₂ emissions by 5 to 7 %. Artificial intelligence (AI) can also contribute to cutting carbon emissions and vehicle fuel consumption. The BMW Group is conducting research into how AI could make energy management in vehicles adaptive, enabling energy consumption to be modified to suit the needs of the driver and further improve energy efficiency.

Furthermore, we invest a significant share of the R&D expenditure in PHEVs / BEVs. Our portfolio will contain 25 electric vehicles in 2023, more

than half being BEVs. In 2020, we launched eleven further models featuring hybrid technology and added two additional all-electric models. At the end of 2020, our vehicle portfolio included 20 electrified models in various segments, thereof 3 BEV and 17 PHEV models. Two more BEV models will be available from 2021, the BMW i4 and the BMW iX.

Explanation: COST OF MANAGING THE RISK

The cost of management is set equal to R&D expenditures in 2020 (EUR 6.279 billion). Due to competitive advantage issues we are not able to give here exact numbers but state that ED technologies / electrification took a significant share of the 2020 R&D expenditure.

Comment

n/a

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

(i) CLEAR DESCRIPTION: Climate change causes a higher frequency of temperature extremes and extreme weather events (e.g. floods, hail, tornados and hurricanes). Those extremes may lead to damaged production sites, damaged transportation infrastructure or disruptions in production capacity due to affected energy structures or shortages in energy or water availabilities.

(ii) COMPANY-SPECIFIC EFFECT: Production sites of BMW Group in vulnerable regions are affected. This is for example of particular concern for the production sites in the USA (South Carolina), South Africa, India or Brazil as well as partner plants, e.g. in Egypt, Malaysia and Vietnam (e.g. temperature extremes and extreme dryness). These sites represent about 20 % of the total BMW Group vehicle production volume. The BMW Group faced several damages due to extreme weather events in the last years. In succession BMW was under pressure to reproduce the ordered vehicles. A feasibility study was carried out for evaluation of natural risks (including extreme weather events) regarding all BMW productions sites worldwide. For example, our production site in Spartanburg (U.S.) could be particularly affected by the higher frequency of tornados.

Time horizon

Short-term

Likelihood

Very unlikely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

1

Potential financial impact figure – maximum (currency)

5,000,000,000

Explanation of financial impact figure

These vary widely with the degree of damage. E.g. a tornado could damage plant Spartanburg (USA) and cause a breakdown of production up to 12 months. In 2020, 361,365 units were produced at this site. Depending on the damage lost revenue would be between EUR 1 and EUR 5 billion for this plant.

However, due to our flexible production system we can shift volumes between plants and / or we can catch up lost volumes in the affected plant itself. In combination with our worldwide insurance solution possible financial implications can be reduced to a large extent.

Cost of response to risk

150,000,000

Description of response and explanation of cost calculation

CASE STUDY:

Climate change causes a higher frequency of temperature extremes and extreme weather events (e.g. floods, hail, tornados and hurricanes). Those extremes may lead to damaged production sites, damaged transportation infrastructure or disruptions in production capacity due to affected energy structures or shortages in energy or water availabilities.

BMW Group uses a tailor-made natural catastrophe risk analysis tool. Depending on individual vulnerability, exact geographical position and elevation all relative risks (in %) are analyzed for hazards like flood, storm, extreme temperatures etc. Each existing and new location is analyzed and mitigation measures are taken.

Specific analyzing tools include a site selection tool. All results are considered for choosing new locations and defining mitigation measures. Vulnerability to direct physical climate risks are evaluated at 100 % of production sites and preparedness plans exist. E.g. in the planning of our new plants in Brazil and Mexico, risks of flooding after hard rain are included. E.g., for Spartanburg, a plan to minimize damages in case of extreme weathers exists (e.g. removal of vehicles from danger zones). For remaining risks tailor-made insurance contracts covering risks at our locations worldwide. Complementary we increase energy and water efficiency in our production network to increase resource independency. Since 2006 we reduced energy consumption per vehicle produced by 38 % and water consumption by 31 %.

Explanation: COST OF MANAGING THE RISK

The cost of managing the risk contain: Insurance premiums for our locations including the production facilities and supply chain interruptions, which were below EUR 50 million (2020). Tool development and personnel costs of risk engineers made several EUR 100,000. Resource

efficiency investments are year by year roughly above EUR 100 million.

Comment

n/a

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Acute physical

Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

(i) CLEAR DESCRIPTION: Climate change causes a higher frequency of temperature extremes and extreme weather events (e.g. floods, hail and hurricanes). Those extremes may lead to damaged supply plants, which in turn may lead to supply chain interruptions and thus shortages in supply for BMW Group.

(ii) COMPANY-SPECIFIC EFFECT: BMW's supply chain in vulnerable regions is affected by changes in physical climate parameters. BMW Group production sites are supplied with production materials from local suppliers as well as from suppliers located all over the world. E.g. local suppliers of our site in Spartanburg (South Carolina) could be affected by a tornado with corresponding interruptions in material supply. In a similar way other sites in the BMW Group production network could be affected by supply chain interruptions from suppliers located in vulnerable regions of the world.

Depending on the importance and substitutability of a certain component, malfunctions of the supply chain for a single part can lead to failures

or even loss of production at BMW production sites. Similar to the events in Japan in 2011, incidents induced by climate change can lead to immense shortfalls of supply. As potential consequence operation of one or more BMW Group production sites must stop, e.g. a one-week breakdown could have a negative impact of up to EUR 400 million gross profit.

Time horizon

Short-term

Likelihood

About as likely as not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

1

Potential financial impact figure – maximum (currency)

400,000,000

Explanation of financial impact figure

Climate change causes a higher frequency of temperature extremes and extreme weather events (e.g. draughts, floods) which could lead to supply chain interruptions. Depending on the importance and substitutability of a certain component, malfunctions of the supply chain for a single part can lead to failures or even loss of production at BMW production sites. As potential consequence operation of BMW Group production sites must stop, e.g. one week breakdown could have a negative impact of up to EUR 400 million gross profit assuming that the

entire production worldwide is impacted. In 2020, this would have affected 2,325,179 units worldwide. Therefore, we arrived at an estimated financial impact between EUR 1 and EUR 400 million.

Cost of response to risk

51,000,000

Description of response and explanation of cost calculation

CASE STUDY:

Climate change causes a higher frequency of temperature extremes and extreme weather events (e.g. draughts, floods) which could lead to supply chain interruptions.

BMW Group uses a tailor-made natural catastrophes risk analysis tool to evaluate supplier sites. Risks are analyzed for hazards like flood, storm etc. On basis of individual risk parameters each (own and supplier) location worldwide can be analyzed. A clear internal process was introduced. Fallbacks and contingency plans have been developed. Insurances cover relevant remaining risks.

Specific analyzing tools are used, e.g. a site selection tool. All results are considered for choosing specific suppliers / supplier locations and to define mitigation measures with suppliers. To minimize shortages, supplier`s production locations are considered before nomination. We developed fallback and contingency plans in case of a shortfall of critical parts. Flexible production structures allow us to respond to business interruptions caused by physical climate drivers. E.g. if the X3 production in Spartanburg (USA) would be shut down due to a local supplier we can e.g. shift volumes to plant Rosslyn (South Africa) or Shenyang (China).

Tailor-made “state-of-the-art” insurance contracts cover known remaining risks for interruptions of the supply chain.

Explanation: COST OF MANAGING THE RISK

The cost of managing the risk contain: Insurance premiums for supply chain interruptions and BMW Group locations including the production facilities were below EUR 50 million. Some FTEs analyze and manage supply chain risks from climate change (about EUR 1 million personnel costs).

Comment

n/a

Identifier

Risk 5

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Chronic physical

Changes in precipitation patterns and extreme variability in weather patterns

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

(i) CLEAR DESCRIPTION: Changes in physical climate parameters can induce changes in natural resources and therefore the availability of input materials.

(ii) COMPANY-SPECIFIC EFFECT: The availability of input materials for BMW Group's suppliers such as water and energy can decrease. As a consequence, the price for these goods could rise and impose additional costs to BMW's suppliers and in consequence to BMW Group. Energy is a significant input factor for BMW Group's supply chain. Life cycle assessments show that the energy needs in the whole BMW Group supply chain for vehicle production are about 75,640,609 MWh in 2020. If the energy costs increase e.g. in average by 5 % in the whole supply chain, additional costs could be between EUR 100 and 200 million.

Time horizon

Short-term

Likelihood

About as likely as not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

100,000,000

Potential financial impact figure – maximum (currency)

200,000,000

Explanation of financial impact figure

Changes in physical climate parameters can induce changes in the availability of natural resources. The price of water and energy can increase. If the risk materializes via suppliers and would increase in average the energy costs in the whole supply chain in the magnitude of e.g. 5 %, this would represent an increase of purchasing costs between EUR 100 and 200 million depending upon the affected regions. To calculate the impact we multiplied an average energy price estimation with the total energy consumption worldwide (76 million MWh). The figure depends on the severity of the physical change parameters and its effects on the availability and pricing of natural resources.

Cost of response to risk

180,000

Description of response and explanation of cost calculation

CASE STUDY:

Changes in physical climate parameters can induce changes in natural resources and therefore the availability of input materials. Risks of scarcity of natural resources are most directly tackled by maximizing resource efficiency in the supply chain and jointly developing solutions, e.g. for re-using and recycling materials.

Resource efficiency is accessed e.g. via the CDP Supply Chain program (over 79 % of production-relevant procurement volume in 2020, identified potentials are addressed and improvements are discussed on top management level in supplier performance reviews.

In 2020, we also asked more than 1,000 additional suppliers who, as small and medium-sized companies, did not meet the criteria to be invited to the CDP Supply Chain program to complete a carbon-related questionnaire. The activity further covered approximately another 11 % (and therefore a total of 90 %) of the Group's production-related purchasing volume. The results of the survey provided us with additional insights that enabled us to further establish the carbon footprint assessment in the supply chain as an award criterion in decision-making processes. We support shared learning within our supply chain, e.g. through our forum "Learning from the Supplier". Our Supplier Innovation Awards incentivize especially innovative supplier achievements. This bi-annual event was planned for 2020, but needed to be cancelled due to the Corona pandemic. Trainings on climate change risks / natural hazards raise awareness among the purchasers and suppliers. Furthermore, life cycle engineering helps to achieve substantial improvements from one vehicle generation to the next. E.g. targets for the share of recycled materials are set to support circular economy, CO₂- as well as cost-efficiency. E.g. up to 20 % of the thermoplastic materials in our vehicles are now made from recirculates and high-strength cast aluminium parts consist of up to 50 % of secondary aluminium.

Explanation: COST OF MANAGING THE RISK

The cost of managing the risk contain: The CDP Supply Chain program costs approximately EUR 31,000 in 2020. The additional evaluation in 2020 costs approximately EUR 150,000. Several full time employees work on sustainability and climate change in R&D and purchase department.

Comment

n/a

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

i) CLEAR DESCRIPTION: The AUTOMOTIVE INDUSTRY is highly affected by future standards, regulations and changes in consumer behaviour. Especially manufacturers who implemented sustainability strategies at a later stage possibly face high development costs to fulfil future requirements while early adapters may earn a premium on relatively lower running development costs but also might be able to profit from higher sales due to an earlier penetration of the market. Rising costs for fuel use (fuel price, carbon taxes, city tolls) impose higher costs for CUSTOMERS and CAR POOL OWNERS. Consequently, consumers and car pool owners could decide to switch to new and more efficient cars. The shift of focus towards CO2 efficiency and sustainability provide opportunities (e.g. increased sales and new customers) for car manufacturers with respective technologies and reputation.

ii) COMPANY-SPECIFIC EFFECT: As a result of our Efficient Dynamics strategy launched already in 2007, the BMW Group fulfils all relevant requirements from standards and regulation and is in good position in comparison to other premium manufacturers. This position provides an important opportunity as it is key to the fulfilment of international agreements, air pollution limits, product efficiency regulation, etc. and secures the BMW Group's sector leader position in various key performance indicators regarding the sustainability of its production. E.g. the BMW Group leads the global market for plug-in hybrid electric vehicles (PHEV) since 2017. In 2020, we sold 192,662 PHEV and BEV worldwide, an

increase of approx. 32 % compared to 2019. This in turn forms the basis for continuing to invest, e.g. in further efficiency measures, new products and e-mobility. In 2023 our portfolio will incorporate 25 electrified models (more than half fully electric). We aim to have 7 million electrified vehicles delivered by 2030. Furthermore, services improving the eco-efficiency of driving, such as traffic intensity monitoring, the choice of drive modes or applications connecting with other mobility services, increase desirability for sustainable consumers. Innovative mobility services like our premium car-sharing services SHARE NOW had several million customers in 16 cities and 8 countries with more than 2,000 electric cars in the fleet.

Therefore, BMW Group will be able to handle future requirements and maintain a competitive advantage in terms of regulatory requirements and consumer demands.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

150,000,000

Potential financial impact figure – maximum (currency)

250,000,000

Explanation of financial impact figure

It is difficult to estimate the financial implications of this opportunity, as we cannot foresee the constantly changing regulations for our relevant markets and the impact of changing customer needs. The BMW Group has early established a competitive advantage in the segment of premium cars based on Efficient Dynamics. Based on historical information about our customers' behaviour regarding technological changes we expect a rise in future sales. Compared to competitors we had a rise in sales (BMW sales units totalled to 2,325,179 units in 2020) due to our Efficient Dynamics strategy of at least 1 % corresponding to approximately EUR 150 to 250 million gross profit annually, depending on the vehicles affected. New forthcoming technical features may lead to a further rise of that figure.

Cost to realize opportunity

6,279,000,000

Strategy to realize opportunity and explanation of cost calculation

CASE STUDY: Details of BMW Group's response to the opportunity

A competitive advantage is the result of anticipating regulation and changing customer demands in the innovation management. BMW Group invests into R&D to increase CO₂-efficient products and services. CO₂ management is included in the corporate strategy and the product development process. BMW Group's Efficient Dynamics (ED) strategy is a comprehensive technologic approach. It includes technologies (e.g. gradually refined combustion engines) as well as PHEVs and BEVs. Our mobility services (e.g. SHARE NOW) are key areas to address changing customer needs.

COMPANY-SPECIFIC EXAMPLES:

- (1) We invested major budgets in CO₂-reduction ED technologies each year. The mild hybrid technology with a 48-volt electrical system is further rolled out for our diesel and petrol engines in all series. In 2020, the BMW Group continued to optimise the efficiency of its combustion engines by deploying recuperation systems (generating additional power for the drivetrain) and continuous emissions reduction measures. This helps to further reduce the CO₂ emissions of vehicles by 5 to 7 %.
- (2) We invest a significant share of the R&D expenditure in PHEVs / BEVs. Our portfolio will contain 25 electric vehicles in 2023. In 2020, we sold 192,662 PHEV and BEV worldwide. BMW launched 11 additional PHEV and two additional all-electric models in 2020, the MINI Cooper SE and the BMW iX3. The next step is the launch of the BMW iX and the BMW i4 in 2021. In EU28 we reduced fleet CO₂-emissions by 53 % between 1995 and 2020.
- (3) Our premium car-sharing services SHARE NOW had several million customers in 16 cities and 8 countries with a more than 2,000 electric cars in the fleet.

With BMW i Ventures (EUR 500 million venture capital) we invest in startups in areas like mobility services and e-mobility.

EXPLANATION: Cost to realize the opportunity

Our cost to realize the opportunity is set equal to R&D expenditures in 2020 (EUR 6.279 billion). Due to competitive advantage issues, we are not able to give here exact numbers but state that ED technologies / electrification took a significant share of the 2020 R&D expenditure.

Comment

n/a

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Markets

Primary climate-related opportunity driver

Other, please specify

Increased capital availability

Primary potential financial impact

Increased access to capital

Company-specific description

i) CLEAR DESCRIPTION: The number of sustainable investment funds operating in Europe and US is growing. Private investors look upon sustainability ratings as indicator for future performance and therefore may grant credits at lower interest rates. Companies with a good sustainability rating could therefore profit from those lower interest rates and have a competitive advantage against other companies.

ii) COMPANY-SPECIFIC EFFECT: Many ratings and awards attest the BMW Group sustainability leadership. Efficient technologies, solutions

for sustainable mobility, and clean production are just some of the aspects that ensure the leading role of the BMW Group regarding sustainability. Market research and media analyses show that the corporate image of the BMW Group is influenced very positively by its sustainability performance, thus increasing its attractiveness for potential investors. The reputation is directly influencing our credit rating and thus our funding costs for the financial service business. The BMW Group has a long-term credit rating of “A2” by Moody’s and A by “Standard & Poor’s” – which is the best rating for an European OEM. We are since many years one of the leading companies in the sustainability ratings CDP and DJSI. In 2020, the BMW Group was the only German automobile manufacturer to be listed once again in the DJSI “World” and “Europe” and is the only company in the automotive industry that has been continuously listed on the index since the very beginning.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

80,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Our excellent sustainability reputation is directly influencing our credit rating and thus our funding costs for the financial service business (e.g.: a potential advantage could be -0,10 %-points interest rate relative to our competitors, which equals approximately EUR 80 million income).

Cost to realize opportunity

12,244,000,000

Strategy to realize opportunity and explanation of cost calculation

CASE STUDY: Details of BMW Group`s response to the opportunity

Ecological reputation relies on the ecological performance of BMW Group and its products. Among other objectives, to maintain BMW Group`s good reputation regarding sustainability we invest in efficient technologies, solutions for sustainable mobility and clean production.

Accompanying sustainability performance communications are essential to keep investors informed about progress.

COMPANY-SPECIFIC EXAMPLES:

(1) Basis for our reputation are the results achieved in product and production efficiency. BMW Efficient Dynamics technologies and a broad range of PHEV in our main product lines and BEV (2020: 192,662 PHEVs / BEVs sold) as well as mobility services add to the substances behind our reputation. Likewise contributes our “Clean Production” approach to reduce negative impacts on the environment (e.g. -78 % in CO2 emissions per vehicle produced since 2006).

(2) We improve image and reputation by transparent communication e.g. through our new approach to reporting for the BMW Group (for the reporting year 2020, the BMW Group has combined its Annual Report and its Sustainability Value Report in a single document), ratings such as DJSI / CDP or investor relation meetings and conferences.

EXPLANATION: Cost to realize the opportunity

Improving resource- and CO2-efficiency in our operations / of our products is integral part when developing and realizing solutions to meet our customer`s needs. People are behind all that which is why we set management costs equal to personnel expenses (EUR 12,244 million in 2020). These contain also several FTEs (e.g. in Investor Relations) to realize a transparent communication to all stakeholders.

Comment

n/a

Identifier

Opp3

Where in the value chain does the opportunity occur?

Upstream

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of more efficient production and distribution processes

Primary potential financial impact

Reduced indirect (operating) costs

Company-specific description

i) CLEAR DESCRIPTION: By the year 2030, the BMW Group intends to have over seven million electrified vehicles on the road. This means that the average carbon emissions generated by the BMW Group's supplier network (Scope 3 upstream according to SBTi) will increase by more than one-third per vehicle by 2030 if no countermeasures are taken. The reasons are, for example, the energy-intensive production of battery cells, the greater use of aluminium and increased localisation in China, where the proportion of green electricity in the energy mix is still relatively low. The BMW Group has set itself the goal of not only halting this trend, but even reversing it and reducing carbon emissions per vehicle in the supply chain by 22 % (base year 2019) by 2030. Since 2020, the BMW Group has established the carbon footprint as a criterion for awarding contracts within the supply chain.

ii) COMPANY-SPECIFIC EFFECT: Just as the BMW Group continuously implements optimisation and efficiency measures in its own production environment, it is also actively committed to promoting decarbonisation measures within its supplier network. The biggest levers for promoting decarbonisation in the supply chain are improvements in energy efficiency in production processes and logistics, adapting to circular economy principles (e.g. the use of secondary raw materials which significantly reduces the carbon footprint compared to primary materials: by a factor of 4 to 6 for aluminium and by a factor of 2 to 5 for steel and thermoplastics) as well as the use of green energy (with a focus on electricity but also other sources, e.g. gas). As within its own operations the BMW Group expects from Tier 1 suppliers to continue to systematically invest in optimising energy efficiency and also to exploit the opportunities offered by digitalisation. Benefits from improved energy efficiency in the supply

chain are expected to materialize in the cost of purchased key components from suppliers.

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

38,000,000

Potential financial impact figure – maximum (currency)

75,000,000

Explanation of financial impact figure

Making optimal use of any innovations developed by suppliers is a key prerequisite for developing future-oriented mobility products and services. Similarly, favourable location-related cost factors, in particular those arising due to the close proximity of supplier structures to new and existing BMW Group production plants as well as the introduction of innovative production technologies, could lead to lower cost of materials for the BMW Group. The BMW Group offers innovative suppliers numerous options for creating specific contractual arrangements that promote companies developing innovative solutions.

Extensive lifecycle assessments show an energy consumption around 75,640,609 MWh in the upstream chain in 2020. Over the course of the

next years we expect average efficiency gains / decreases of consumption of about 1 %. Taken projected energy prices into account (EUR 50/MWh – 100/MWh), this would amount to a range of EUR 38 to 75 million savings.

Cost to realize opportunity

12,244,000,000

Strategy to realize opportunity and explanation of cost calculation

CASE STUDY: Details of BMW Group`s response to the opportunity

The Purchasing and Supplier Network makes a significant contribution to the Group`s focus on the strategic markets of tomorrow, and takes steps to ensure corresponding production volumes in the supply chain. Suppliers are rigorously selected on the basis of competitiveness in terms of operational excellence, quality, innovation, flexibility, cost and SUSTAINABILITY. The BMW Group is continuously expanding its sustainability activities across the supplier network. The focus is essentially decarbonisation, compliance with environmental and social standards and the protection of natural resources.

COMPANY-SPECIFIC EXAMPLES:

- (1) The BMW Group is actively committed to motivating partners to OPERATE SUSTAINABLY and promoting DECARBONISATION MEASURES within its supplier network. In close collaboration countermeasures are defined, implemented and monitored e.g. to address the energy-intensive production of battery cells and the greater use of aluminium induced by the growing percentage of electrified models.
- (2) We participate in the CDP Supply Chain program. It takes a multitude of CLIMATE-RELATED ASPECTS into account. The BMW Group strongly encourages its suppliers to set targets in line with the Paris Climate Agreement. A due diligence process is established to check whether and how sustainability standards are being implemented by our suppliers.
- (3) The responsible use of nature`s finite resources also plays a major role. The growth of e-mobility is causing the topic of CIRCULAR ECONOMY to become increasingly important for the BMW Group as well as for its supply chain, as a variety of critical raw materials are required.

EXPLANATION: Cost to realize the opportunity

We don`t just do sustainability at BMW: We are making BMW sustainable. Everything we do and plan is assessed for its ecological effects from the very beginning. Improving resource efficiency in our supply chain works via interdisciplinary collaboration of BMW Group`s R&D, production, logistics and procurement with our external partners. People are behind all that which is why we set management costs equal to personnel

expenses (EUR 12.244 billion in 2020). These contain FTEs well into the double digits (e.g. in Purchasing Department) to arrange, implement and monitor contractual agreements within our supply chain. We further invest in tools, IT systems and procedures to support this collaborative approach.

Comment

n/a

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization’s strategy and/or financial planning?

Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Is your organization’s low-carbon transition plan a scheduled resolution item at Annual General Meetings (AGMs)?

	Is your low-carbon transition plan a scheduled resolution item at AGMs?	Comment
Row 1	No, and we do not intend it to become a scheduled resolution item within the next two years	<p>Although the low-carbon transition plan was not a resolution item at the recent AGM, the CLIMATE STRATEGY and the TARGETS were PRESENTED in detail by the CEO during our recent AGM. E.g. our CO2 goals for 2030 validated by the Science-Based Targets initiative (which will avoid emission of over 200 million tons of CO2) and our next-generation battery cells (which carbon footprint will be reduced by half).</p> <p>The BMW Group has a long tradition of reducing its impact on nature and the environment, and we intend to continue setting an example and making constant progress in the future.</p> <p>Since 2006, we have reduced emissions per vehicle in production by more than 70 percent. In 2020, we have set ourselves the goal of reducing BMW Group emissions (Scope 1 & 2) by another 80 percent by 2030. Compared to 2006, this will leave less than 10 percent of the original CO2 emissions. This means that the BMW Group has set</p>

		<p>itself the highest reduction targets in the industry for CO2 emissions from its own plants and locations - which even follow a more ambitious path than the 1.5 degree target. Furthermore, the BMW Group set itself the target to reduce the emissions in the use phase of the vehicle by 40 % per km driven and to reduce the CO2 emissions in the supply chain by at least 20 % by 2030.</p> <p>Besides sourcing 100 % green electricity from 2020, the BMW Group will consistently invest in optimizing its energy efficiency. In addition to the significant reduction in substance, the BMW Group will fully neutralize its remaining CO2 emissions (Scope 1 & 2) as early as 2021 through the use of corresponding certificates.</p> <p>As we are pursuing our verifiable and consistent path towards a climate-neutral business model spanning the entire value chain by 2050 we will CONTINUE to COMMUNICATE and DISCUSS the BMW Group Strategy with our stakeholders, including our SHAREHOLDERS.</p>
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C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

Yes, qualitative and quantitative

C3.2a

(C3.2a) Provide details of your organization’s use of climate-related scenario analysis.

Climate-related scenarios and models applied	Details
Other, please specify Environmental profit and loss estimate	DESCRIPTION of i) scenario identification, ii) time horizon and company relevance and iii) areas considered: i) We performed an environmental profit and loss calculation (E P&L) for one of our best selling cars (3 series). Based on the economic model of multiregional input- output analysis as well as quality-assured data of international environment and resource statistics we analyzed global warming potentials (GWP), water depletion as well as airborne pollutants (e.g. PM10/PM2.5, NMVOC, NOx, SO2 or NH3) and land use as impact categories. From these, following the corresponding impact pathways until the so called “endpoints” human health, impact on nature and human made environment (eco toxicity, human toxicity, damage to human made environment such as buildings) we derived price tags caused by these impacts (external

costs). Scenario analysis is done by considering CO₂-price scenarios (the CO₂ price is the dominating factor for external costs) as well as degrees of internalization through (future) regulations and estimated impacts on our business model.

ii) The time horizon is in particular 2030, but is also varied. Company relevance arises from our core business of producing and selling vehicles and motorcycles which cause CO₂-emissions along the whole life cycle. Among others, this time horizon is relevant as it corresponds to the time horizon of current use-phase regulations in lead markets.

iii) Areas considered are in particular BMW Group's own operations, the use phase of our products and our supply chain.

SPECIFIC DESCRIPTION of the scenario analysis regarding its i) results, ii) usage in strategy / business development and iii) influence on strategy / business development (CASE STUDY):

i) By calculating external costs different impacts categories can be compared and their relative relevance can be assessed. A result of the analysis was that for BMW Group the by far most dominant impact category is CO₂ emissions followed by airborne pollutants (e.g. PM₁₀/PM_{2.5}, NMVOC, NO_x, SO₂ or NH₃) and water depletion.

ii) From these price tags our focus of our BMW Group Strategy on GWP and airborne pollutants and, with minor impact, worldwide water depletion have been confirmed. Furthermore, we got insights into price tags from external costs which could materialize through regulations in operational costs of BMW Group and its supply chain as well as e.g. in additional costs of ownership for our customers. However, strategic decisions respectively business decisions are not made by just considering one framework such as scenario analysis based on E P&L.

iii) Increasing CO₂-efficiency of our products as well as of our production network are key areas we address to reduce the impact category GWP and like this anticipate future regulation. The results of the scenario analysis influenced the following parts of our strategy:

- Products: We are proceeding in our Efficient Dynamics strategy and further increase efficiency of conventional cars, roll out PHEVs / BEVs in a broad range of models, develop hydrogen solutions and develop sustainable mobility services. Our target: emissions reduction by 40 % in CO₂ emissions of our worldwide fleet by 2030 and at least a 25 % share of electrified vehicles of new sales in 2025.
- Production: We set as target to drastically reduce the carbon footprint in production by 80 percent compared to 2019 per vehicle until 2030. We aim to reduce CO₂ emissions of all BMW Group locations to zero until 2050. Since 2017, all European production sites purchase electricity which comes to 100 % from renewable sources worldwide. Since 2020, the BMW Group only purchases electricity from renewable sources, an important step towards our 2050 target.

<p>Other, please specify</p> <p>Future regulatory requirements</p>	<p>DESCRIPTION of i) scenario identification, ii) time horizon and company relevance and iii) areas considered:</p> <p>i) We simulate the average CO2 emissions of our future fleet (based on long range planning), considering future powertrain mix (conventional powertrains as well as shares of PHEV (plug-in hybrid electric vehicles) / BEV (battery electric vehicles) powertrains) and corresponding capital expenditures / capital allocation against upcoming regulations on climate change via scenario analysis, assuming e.g. fleet emission limits in main markets such as EU28, USA or China after 2020.</p> <p>ii) We consider regulation scenarios until 2030 and expect that governments will further intensify limit regulations based on existing and future scientific analyses, as well as what is technologically possible. These future limits are expected to be very ambitious and will entail considerable investment and development work for manufacturers. This time horizon is relevant as it corresponds to the time horizon of current regulation in lead markets.</p> <p>iii) The scenario analysis is related to the use phase of our new vehicle fleet in the corresponding market.</p> <p>SPECIFIC DESCRIPTION of the scenario analysis regarding its i) results, ii) usage in strategy / business development and iii) influence on strategy / business development (CASE STUDY):</p> <p>i) The key result is: BMW Group needs to further invest into electrification to achieve compliance with the simulated regulation scenarios. In all markets for all future fuel efficiency levels under discussion future target compliance is heavily depending on the market success of e-mobility. Market success depends on several factors such as attractive products as well as available charging infrastructure and supporting policies for the ramp up.</p> <p>ii) This result significantly influences our e-mobility strategy. BMW Group contributes to market success of e-mobility by offering attractive BEVs and PHEVs models to its customers. We will offer 25 electrified vehicles already in 2023 – two years earlier than originally planned. We expect to see a steep growth curve towards 2025: sales of our electrified vehicles should increase by an average of 30 percent every year. Expanding the charging infrastructure is fundamental for the breakthrough of e-mobility. BMW contributes to the development of the charging infrastructure. From 2015 to 2020, we were active in over 50 projects for improving the charging infrastructure. Positive political framework conditions can further support the process. This has become clear in fast-growing markets for e-mobility, such as Norway and California. As part of the political dialogue, we advocate for measures to promote e-mobility, whether by financial support or non-monetary packages (for example the use of bus lanes and / or introduction of dedicated lanes, preferential parking).</p> <p>iii) Under the term Efficient Dynamics, the BMW Group has been successfully working on reducing fuel consumption and vehicle emissions. We are proceeding in our Efficient Dynamics strategy and further increase efficiency of conventional cars, roll out PHEVs / BEVs in a broad range of models, develop hydrogen solutions and develop sustainable mobility services. As an</p>
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	<p>example we reduced CO2 emissions in newly-sold vehicles in EU28 by around 53 % between 1995 and 2020 and led e.g. the global PHEV sales since 2017– and not just the premium segment.</p>
<p>2DS IEA B2DS IEA Sustainable development scenario</p>	<p>DESCRIPTION of i) scenario identification, ii) time horizon and company relevance and iii) areas considered:</p> <p>i) The BMW Group is committed to achieving long-term climate neutrality by 2050 and is supporting the international pursuing efforts of limiting global warming to 1.5 degrees celsius. To set ourselves new and ambitious sustainability targets for 2030 we conducted scenario analyses according to the Science-Based Targets initiative (SBTi). Following SBTi procedures / requirements and using SBTi tools our analyses and ultimately our new targets were validated by SBTi.</p> <p>ii) The Group has given a commitment to achieve climate neutrality across the entire value chain by no later than 2050. In view of this long-term nature and the fact that, from today’s perspective, the technological and economic route remains uncertain, the BMW Group sets its targets one decade at a time. In 2020, the Group set itself specific goals for the year 2030 based on scientific information. These targets are fully in line with the requirements of the Paris Climate Agreement and put the BMW Group on the path towards climate neutrality.</p> <p>iii) Areas considered are in particular BMW Group’s own operations, our supply chain (upstream value chain) and the use phase of our products (downstream value chain).</p> <p>SPECIFIC DESCRIPTION of the scenario analysis regarding its i) results, ii) usage in strategy / business development and iii) influence on strategy / business development (CASE STUDY):</p> <p>i) Our new science-based targets (based on thorough scenario analyses) are an integral part of the BMW Group’s strategic approach: We don’t just do sustainability at BMW: We are making BMW sustainable.</p> <p>ii) We aspire to be not only the most successful, but also the most sustainable premium provider of individual mobility and always focus on the needs of our customers. Our BMW Group Strategy and respective climate-related targets (based on thorough analyses) intend to strengthen our leadership, brand and to foster customer loyalty.</p> <p>iii) Scenario analyses influence strategy / business development along our entire value chain:</p> <p>a) BMW Group’s own operations (Scope 1 and 2): Energy efficiency (and its contribution to emissions reduction) is a significant measure for cost savings. Also, with our technology-driven efforts to reduce energy consumption we strive to be a role model for our supply chain as we strongly encourage our suppliers to set targets in line with the Paris Climate Agreement and thereby contribute to limiting global warming.</p> <p>b) Upstream value chain (Scope 3): Decarbonization is reducing the risk of an increasing CO2 price component from purchased</p>

	<p>parts. As for our own operations, energy efficiency is also a main lever for cost savings and avoiding for our entire (Tier 1-n) supply chain.</p> <p>c) Downstream value chain (Scope 3): Anticipation and simulation of future intensified regulation (e.g. WTW, WTT) and requirements is essential for the focus of our R&D and the development of our product portfolio (i.e. drivetrains). Our aspiration to be the most sustainable premium provider of individual mobility is driven by rapidly evolving customer expectations towards sustainability.</p>
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C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	<p>DESCRIPTION: i) BMW Group’s STRATEGY and its TIME HORIZONS (a+b) and ii) most SUBSTANTIAL STRATEGIC DECISIONS</p> <p>i) The strategic approach in our BMW Group Strategy is to leverage innovative technologies, digitalization and sustainability. It is part of our culture and anchored in our processes to mitigate climate risks and explore opportunities arising from the global efforts of combating climate change (CC). This process influenced e.g. our strategic approach to e-mobility. E-vehicles have zero local emissions, along with the potential of significantly reducing the emission of CO2 over the whole product life cycle.</p> <p>a) Our short term strategy and targets aim towards mitigating CO2 emissions from product, accounting for indirect risks and opportunities from regulations and changing consumer behaviour. We further develop the Efficient Dynamics (ED) technology package to meet fleet emission targets worldwide. We intend to set standards in e-mobility. We currently offer 3 BEV and 17 PHEV models in a total of 95 markets worldwide – more than any other new or traditional premium manufacturer. Two more BEV models will be available from 2021 and by 2023, we will offer a total of 25 electrified models, more than half of them pure electric.</p> <p>b) Our long term strategy and targets: We are proceeding in our ED strategy: further increase efficiency</p>

		<p>of conventional cars, roll out PHEVs / BEVs in a broad range of models, develop hydrogen solutions and develop sustainable mobility services. Our target: CO2 emissions reduction by 40 % of our fleet until 2030 and e.g. by 2025, the proportion of electrified vehicles in the total deliveries is to rise to at least 25 %. By 2030, we plan to have delivered at least seven million electrified vehicles.</p> <p>ii) CASE STUDY: The climate-related opportunities of changing consumer behaviour and regulatory risks regarding our products highly affected the following decisions in 2020.</p> <ul style="list-style-type: none"> - R&D expenditures of EUR 6.28 billion to develop models with further increased efficiency, PHEVs, BEVs and mobility services. - Launch of eleven further models in various segments featuring hybrid technology as well as the additional all-electric models BMW iX3 and MINI Cooper SE. This means electric drivetrains for many high-volume models. - Launch of further models with the latest engine and 48-volt technology.
Supply chain and/or value chain	Yes	<p>DESCRIPTION: i) BMW Group's STRATEGY, its TIME HORIZONS (a+b) and ii) most SUBSTANTIAL STRATEGIC DECISIONS</p> <p>i) The BMW Group is fully committed to ecological and social sustainability along the entire value chain. Our clean production philosophy contributes to the global mitigation efforts by reducing environmental impacts of production and procurement. Furthermore, the BMW Group continues to accelerate towards e-mobility and is bolstering its production network for the increased manufacturing of electrified vehicles. Risks as higher prices for CO2-emissions further motivate our efforts to maximize energy efficiency and increase the use of renewable energy.</p> <p>a) Our short term strategy and targets:</p> <ul style="list-style-type: none"> - We achieved our target to reach 100 % renewable energy consumption worldwide by 2020. - By 2022, every production plant in Germany should have the capacity to produce at least one fully electric vehicle model. - Strengthen the resilience and flexibility of our supply chain to cope with exceptional conditions e.g. as in the 2020 pandemic year. <p>b) Our long term strategy and targets aim to further improve global mitigation:</p>



		<ul style="list-style-type: none"> - Reducing carbon emissions in the supply chain by at least 20 % (base year 2019) per vehicle by 2030. - Green logistics strategy pursues the aim of achieving climate-neutral transportation. - By 2025, we aim that 60 % of our suppliers participating in the CDP Supply Chain program have at least a B rating. - Climate-neutral business model spanning the entire value chain by 2050. - To counter direct physical risks we take measures, e.g. include vulnerability risks in planning of new production sites and selection of suppliers. - Promoting the principles of circular economy, both in our corporate philosophy and our value chain. - When developing new targets for CO2 efficiency in production and our value chain we check for consistency with Science-Based Targeting (B2DS). <p>ii) CASE STUDY:</p> <ul style="list-style-type: none"> - Establishment of CO2 indicators as a criterion for supplier nomination. - Agreement with our High Voltage System (HVS) cell suppliers for our next generations HVS cells to use 100 % renewable electricity for cell production. - Hedge further material supply chains that are particularly associated with environmental and social risks (e.g. graphite or lithium) and drive active transformation through standardization and enabling measures on local and site level.
Investment in R&D	Yes	<p>DESCRIPTION: i) BMW Group's STRATEGY and its TIME HORIZONS (a+b) and ii) most SUBSTANTIAL STRATEGIC DECISIONS</p> <p>i) Climate change is influencing our industry with the need to decrease emissions, the trend to e-mobility and mobility services. R&D is therefore of key importance for the BMW Group as a premium provider within the transformation of the industry. With its BMW Group Strategy, the Group is focusing on e-mobility, digitalization and autonomous driving.</p> <p>a) Our short term strategy and targets:</p> <p>By offering sustainable individual mobility BMW mitigates climate-related physical risks and develops business opportunities. We are proceeding in our ED strategy: further increase efficiency of conventional cars, roll out PHEVs / BEVs in a broad range of models, develop hydrogen solutions and develop sustainable mobility services. Our target: CO2 emissions reduction by 40 % of our fleet until 2030 and e.g. by 2025, the proportion of electrified vehicles in the total deliveries is to rise to at least 25</p>

		<p>%.</p> <p>By 2030, we plan to have delivered at least seven million electrified vehicles.</p> <p>b) Our long term strategy and targets</p> <p>We stress test via scenario analysis our planning of product offers, sales volumes and R&D investments against upcoming regulations on climate change, taking into account the ambition from the COP21 agreement.</p> <p>ii) CASE STUDY:</p> <ul style="list-style-type: none"> - At 31 December 2020, more than 15,000 people in 12 countries were working in the BMW Group's global research and innovations network. R&D expenditures were EUR 6,279 million (2019: EUR 6,419 million). One key development: building a broad drive technology base so that in the coming years we can offer innovative solutions for the different mobility needs. E.g. the BMW iX3 in 2020 and the iX and i4 in 2021 will introduce the 5th generation of our electric drive, uncoupling the vehicle architecture from the drivetrain technology. - Another key development direction relates to individual mobility services, e.g. our car-sharing services, which are one enabler for electric vehicles. In 2020, 2.9 million customers in 16 cities and 8 countries used the car-sharing service SHARE NOW, a joint venture with Daimler AG, with about 2,000 electric cars in the fleet.
Operations	Yes	<p>Description: i) BMW Group's STRATEGY and its TIME HORIZONS (a+b) and ii) most SUBSTANTIAL STRATEGIC DECISIONS</p> <p>i) Our company is facing the challenge of conserving resources and tackling climate change. This is also very relevant for our production processes. We continuously increase our energy and resource efficiency and minimize CO2 and pollutant emissions from our production. We enable our plants to flexibly produce all types of drivetrains. Like this we offer an electrified powertrain portfolio to reduce CO2 emissions over lifecycle and meet customer's needs. These measures meet the needs of our customers and stakeholders and prepare for new legal requirements.</p> <p>a) Our short term strategy and targets</p> <p>To improve global mitigation we continue reducing CO2 emissions through further increase of energy efficiency, utilization of combined heat and power plants (CHP) and increase of the share of electricity from renewable sources. 100 % renewable electricity in our plants worldwide was achieved by 2020. To</p>

		<p>counter direct physical risks we take measures, e.g. include vulnerability risks in planning of new production sites and selection of suppliers. To counter regulatory risks / risks from changing consumer behaviour we enable our production sites to flexibly produce all types of powertrains.</p> <p>b) Our long term strategy and targets</p> <p>Our target to further improve global mitigation: drastically reduce the carbon footprint in production by 80 percent compared to 2019 per vehicle until 2030 and aim to reduce CO2 emissions of all our locations to zero until 2050.</p> <p>We stress test via scenario analysis our planning of product offers, sales volumes and correspondingly plan production capacities worldwide to produce the right mix of types of vehicles / powertrains (BEV, PHEV, ICE powertrains) against upcoming regulations on climate change, taking into account the ambition from the COP21 agreement.</p> <p>ii) CASE STUDY:</p> <ul style="list-style-type: none"> - We launched the iX3 in 2020 and prepared our sites to offer all powertrain systems to our customers. - We continuously improved process efficiency and invested in more efficient technologies in order to achieve our 45 % resource efficiency improvement goal by 2020 (base: 2006) - We have established environmental management systems at all of our existing production plants and plan to install them at all future locations.
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C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Indirect costs Capital expenditures	<p>1) CASE STUDY for “Revenues”:</p> <p>i) Climate-related risks and opportunities have influenced our financial planning: In the BMW Group, the drive for sustainable mobility pushes us to develop innovative technologies with direct impact on our revenues. We set ourselves ambitious goals for increasing the efficiency of our drivetrain systems as well as to develop battery electric vehicles and</p>

<p>Acquisitions and divestments</p> <p>Access to capital</p> <p>Assets</p> <p>Liabilities</p>	<p>plug-in electric vehicles and like this reducing CO2-emissions. Since 2007, Efficient Dynamics technologies are standard. These include efficient engines / gearboxes, optimized aerodynamics, intelligent energy management, light-weight design, tires with reduced rolling resistance, energy recovery, ECO PRO driving mode, active coasting and proactive driving assistant or 48-volt recuperation systems and Auto Start Stop function. We offer connectivity services e.g. to find the fastest or the most efficient routes and simplify the search for a parking place. We currently offer 3 BEV and 17 PHEV models in a total of 95 markets worldwide – more than any other new or traditional premium manufacturer.</p> <p>ii) Time horizons covered by the financial planning</p> <ul style="list-style-type: none"> - In 2020, BMW launched eleven further models in various segments featuring hybrid technology as well as the additional all-electric models BMW iX3 and MINI Cooper SE. This means electric drivetrains for many high-volume models. We sold 192,662 BEVs and PHEVs contributing to the BMW Group revenues. In fact, BMW Group has in this fast growing segment already a much larger market share than in traditional drivetrains. The company led e.g. the global PHEV sales since 2017 – and not just the premium segment. - Two more BEV models will be available from 2021 and by 2023, we will offer a total of 25 electrified models, more than half of them pure electric. - We reached our aim to sell half a million electrified BMWs and MINIs on the roads by the end of 2019 and we set ourselves ambitious targets: by 2025, the proportion of electrified vehicles in the total deliveries is to rise to at least 25 %. By 2030, we plan to have delivered at least seven million electrified vehicles. - The competitive edge achieved through this is one of the reasons why the BMW Group could continually increase their sales in the last years (excluding pandemic-related effects). This shows the impact on our revenues. <p>2) CASE STUDY for “Indirect costs”:</p> <p>i) Climate-related risks and opportunities have influenced our financial planning: Our company is facing the challenge of conserving resources and tackling climate change. This is also very relevant for our production processes. For this reason, we continuously increase our energy and resource efficiency and minimize CO2 and pollutant emissions from our production in our worldwide production network. These measures help us reduce production costs and prepare for new legal requirements. Like this climate change is a driving force for efficiency increase and therefore cost savings.</p> <p>ii) Time horizons covered by the financial planning</p> <ul style="list-style-type: none"> - By 2020, the BMW Group’s clearly surpassed its target of reducing resource consumption (energy, water, waste for disposal, solvents) per vehicle produced by an average of 45 % by 2020 compared to 2006, achieving an overall
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		<p>reduction of 56.7 %. CO2 emissions per vehicle produced were even reduced by 78.1 %. Our overall resources reduction per vehicle (energy efficiency) yielded savings of EUR 171 million since 2006.</p> <p>3) CASE STUDY for “Capital expenditures”:</p> <p>i) Climate-related risks and opportunities have influenced our financial planning: A major factor in the success of the BMW Group is its consistent focus on the future. Shaping individual mobility and finding innovative solutions today for the needs of tomorrow is a key driving force for the BMW Group. Research and development (R&D) is therefore of key importance for the BMW Group as a premium provider.</p> <p>ii) Time horizons covered by the financial planning:</p> <ul style="list-style-type: none"> - In 2020, the R&D expenditure were EUR 6,279 million (2019: EUR 6,419 million). A significant share of the R&D expenditures is spent for electrification of the product range across all brands. - In 2020, BMW launched eleven further models in various segments featuring hybrid technology as well as the additional all-electric models BMW iX3 and MINI Cooper SE. This means electric drivetrains for many high-volume models. We sold 192,662 BEVs and PHEVs contributing to the BMW Group revenues. In fact, BMW Group has in this fast growing segment already a much larger market share than in traditional drivetrains. The company led e.g. the global PHEV sales since 2017– and not just the premium segment. - We currently offer 3 BEV and 17 PHEV models in a total of 95 markets worldwide – more than any other new or traditional premium manufacturer. - Two more BEV models will be available from 2021 and by 2023, we will offer a total of 25 electrified models, more than half of them pure electric. - We reached our aim to sell half a million electrified BMWs and MINIs on the roads by the end of 2019 and we set ourselves ambitious targets: by 2025, the proportion of electrified vehicles in the total deliveries is to rise to at least 25 %. By 2030, we plan to have delivered at least seven million electrified vehicles. Over the next few years, we will see different types of drivetrains on the roads. - A high level of capital expenditures are for preparing our sites for this diversity by creating flexible architectures and plants. This will allow us to produce models with efficient combustion engines alongside electric vehicles and plug-in hybrids. From 2020 on, the use of scalable modular electric construction kits enables us to fit all model series with any type of drivetrain. This makes us extremely flexible, whichever way demand develops.
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		<p>4) Acquisitions, Access to capital, Assets and Liabilities</p> <p>Climate-related risks and opportunities have influenced our financial planning in the following elements:</p> <p>1) Acquisitions: through the IONITY joint venture, creating rapid charging network for electric vehicles in Europe as well as the joint venture with Great Wall to produce future fully-electric models of the MINI brand,</p> <p>2) Access to capital: through our leading position in sustainability ratings (CDP, DJSI),</p> <p>3) Assets: low- and zero-carbon technologies impacting our intangible assets (technology and knowhow), climate-related risk analysis impacting the choice of new sites,</p> <p>4) Liabilities: e.g. through loans for climate-related investments.</p> <p>For details on these 4 elements, please see the section Further Information (C-FI).</p>
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C3.4a

(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Intensity target

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number

Int 1

Year target was set

2020

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based)

Intensity metric

Metric tons CO₂e per vehicle produced

Base year

2019

Intensity figure in base year (metric tons CO₂e per unit of activity)

0.37

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure

100

Target year

2030

Targeted reduction from base year (%)

80

Intensity figure in target year (metric tons CO₂e per unit of activity) [auto-calculated]

0.074

% change anticipated in absolute Scope 1+2 emissions

-80

% change anticipated in absolute Scope 3 emissions

Intensity figure in reporting year (metric tons CO₂e per unit of activity)

0.31

% of target achieved [auto-calculated]

20.2702702703

Target status in reporting year

New

Is this a science-based target?

Yes, and this target has been approved by the Science Based Targets initiative

Target ambition

1.5°C aligned

Please explain (including target coverage)

The BMW Group is firmly convinced that the fight against climate change and the responsible use of resources will determine the future of our society – and thus also that of the BMW Group. In July 2020, we adopted our integrated sustainability strategy, with concrete science-based targets for the first stage up to 2030. Those targets are an inherent aspect of strategic management and include the upstream supply chain, the Group's own manufacturing operations as well as the customers' use phase.

The BMW Group has a direct influence on the carbon emissions generated at its own plants and locations and has therefore been a leader in terms of resource efficiency in this field for many years. Its underlying aspiration is even more ambitious than the international pursuing efforts of limiting global warming to 1.5 degrees celsius.

Despite having already reduced the level of carbon emissions per vehicle produced by more than 70 % since 2006, the BMW Group intends to additionally reduce carbon emissions per vehicle produced, which are generated directly by its own combustion processes (Scope 1) and indirectly by external energy sources (Scope 2), by a further 80 % by 2030 (base year 2019). Accordingly, by 2030 carbon emissions are

expected to have dropped by over 90 % compared with 2006 levels.

Remark: We strive to achieve and are currently preparing reasonable assurance for the reporting of our new SBTi targets for Scope 3 (upstream supply chain and customer's use phase). Therefore we will report our new Scope 3 targets (22 % reduction of tons CO₂e per vehicle produced in the upstream supply chain and 40 % reduction of grams CO₂e per kilometer in the use phase) in the next CDP reporting cycle. This target, together with the SBTi targets for Scope 3 and the 2050 net-zero target, replaces Abs2 target reported in 2019.

Target reference number

Int 2

Year target was set

2008

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 3: Use of sold products

Intensity metric

Grams CO₂e per kilometer

Base year

2008

Intensity figure in base year (metric tons CO₂e per unit of activity)

182

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure

100

Target year

2020

Targeted reduction from base year (%)

25

Intensity figure in target year (metric tons CO₂e per unit of activity) [auto-calculated]

136.5

% change anticipated in absolute Scope 1+2 emissions

% change anticipated in absolute Scope 3 emissions

Intensity figure in reporting year (metric tons CO₂e per unit of activity)

133

% of target achieved [auto-calculated]

107.6923076923

Target status in reporting year

Achieved

Is this a science-based target?

No, but we are reporting another target that is science-based

Target ambition

Please explain (including target coverage)

The BMW Group has committed itself to a long-term reduction target for the fleet tailpipe emissions. The target refers to the Copenhagen Conference where the BMW Group communicated to reduce these emissions by 25 % until 2020. The 25 % reduction is to be achieved by

continuous development of our Efficient Dynamics (ED) strategy. Since 2007, our ED is a comprehensive technologic approach for the consistent reduction of fuel consumption and emissions in the standard configuration of all cars of the BMW Group. It includes both highly-efficient automobiles with gradually refined combustion engines and all-electric cars and low-emission plug-in hybrids. ED technologies include e.g. efficient engines, optimized aerodynamics, intelligent energy management, light-weight design or Auto Start Stop function. Our future is electric. We already offer 3 BEV and 17 PHEV models in various segments in a total of 95 markets worldwide. In 2020, we sold 192,662 electrified vehicles worldwide (BEVs: 44,541; PHEVs: 148,121), a further increase in volume by 31.8 % compared to 2019, and led e.g. the global PHEV sales since 2017– and not just the premium segment.

Our fleet averaged CO2 emissions per kilometer calculated from the core market values EU28, USA, China, Japan and Korea were 133 g CO2/km. This means a 5.4 % reduction of fleet averaged CO2 emissions of 2020 when compared to 2019.

We set clear goals for sustainable mobility: We reached our aim of half a million electric vehicles and plug-in hybrids on the roads by the end of 2019. We will offer 25 electrified models already in 2023, more than half of them pure electric, and an expected proportion of electrified vehicles in the total deliveries is to rise to at least 25 % in 2025.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Target(s) to increase low-carbon energy consumption or production

Net-zero target(s)

Other climate-related target(s)

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number

Low 1

Year target was set

2015

Target coverage

Company-wide

Target type: absolute or intensity

Intensity

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)

MWh

Target denominator (intensity targets only)

megawatt hour (MWh)

Base year

2015

Figure or percentage in base year

42

Target year

2020

Figure or percentage in target year

67

Figure or percentage in reporting year

100

% of target achieved [auto-calculated]

232

Target status in reporting year

Achieved

Is this target part of an emissions target?

Relation of this target to Int1: This target addresses only CO₂-emissions from purchased electricity. Int1 includes also emissions from heat supply as well as from fuel combustion inside the BMW Group. On a mid- to long-term perspective we see the potential to replace in an economically reasonable way fossil fuels by renewable fuels (e.g. biogas) to achieve CO₂ neutral operations. Where available BMW Group has such solutions already in place: We operate one combined heat and power plant (in Spartanburg USA) with landfill gas. Our site in Rosslyn (South Africa) is supplied with electricity generated with biogas (source: cattle farm).

Is this target part of an overarching initiative?

RE100

Please explain (including target coverage)

In 2015 BMW Group joined the RE100 initiative of the Climate Group at the COP21 in Paris and committed to purchase 100 % of electricity from renewable sources for its operations and to develop a pathway to achieve this. We set as an interim target to purchase more than two third of our electricity from renewables by 2020. The present target corresponds to this interim target. After achieving our target already in 2019 with a 84 % share of electricity purchased from renewable sources, we were able to increase our purchased electricity from renewable sources to 100 % in 2020 for our worldwide operations. Our 2015 commitment is fulfilled. Nevertheless, the BMW Group has already set itself the next target: compared to 2019, the carbon emissions are to be reduced by a further 80 % per vehicle by 2030.

Scope of target: The emissions in scope include all BMW Group locations and the production sites in China. The electricity purchased in 2015

for the BMW Group production network (including China), for the corporate functions, development and administration in Munich (Germany) and for the motorcycle plant in Berlin (Germany) of 2,485,881 MWh makes about 95 % of BMW Group's whole electricity purchased. The base year electricity consumption is derived by dividing 2,485,881 MWh by 0.95 and rounding.

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number

Oth 1

Year target was set

2017

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Engagement with suppliers

Other, please specify

Suppliers participating in the CDP Supply Chain program achieve at least a B rating

Target denominator (intensity targets only)

Base year

2017

Figure or percentage in base year

25

Target year

2025

Figure or percentage in target year

60

Figure or percentage in reporting year

35

% of target achieved [auto-calculated]

28.5714285714

Target status in reporting year

Underway

Is this target part of an emissions target?

No this target is not part of an emissions target.

However, the BMW Group has set a broad range of sustainability goals. These include our aim that 60 % of our suppliers participating in the CDP Supply Chain program achieve at least a B rating by 2025.

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain (including target coverage)

In 2020, a total of 218 of our suppliers (2019: 199) reported on their resource efficiency via the CDP Supply Chain program. These suppliers account for 79 % of the purchase volume of the BMW Group (2019: 78 %).



It is our aim that 60 % of our suppliers participating in the CDP Supply Chain program achieve at least a B rating. The target of at least 60 % of BMW Group suppliers participating in the CDP Supply Chain program achieving a score of at least B by 2020 was not achieved. The target period was therefore extended to 2025.

As in the previous year our evaluated suppliers, including the 25 companies that entered the program in 2020, achieved an average score of C. 35 % achieved a rating of B and higher (2019: 34 %). There have been significant improvements with suppliers who have been reporting for at least three years. We regard this as evidence that the program is well established at the companies which have been participating for longer periods and that it yields the expected results.

Participating suppliers reduced their CO2 emissions by 22 million t in 2020 (2019: 32 million t). This was mainly due to renewable energy projects and an increase in energy efficiency. Due to the coronavirus pandemic and the resulting decrease in production volumes, carbon emissions were generally lower in 2020. Accordingly, the reduction in reported carbon emissions was also lower.

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number

NZ1

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Int1

Target year for achieving net zero

2021

Is this a science-based target?

No, but we are reporting another target that is science-based

Please explain (including target coverage)

The reduction of carbon emissions and the responsible use of resources are important cornerstones of the BMW Group Strategy. The biggest lever for reducing the BMW Group's Scope 1 and Scope 2 emissions is at its production locations, which account for around 90 % of these emissions. The BMW Group has had considerable success in this area and repeatedly set new standards in terms of sustainable production methods. Between 2006 and 2020, carbon emissions per vehicle produced fell by around 78 % by continually improving energy efficiency, generating renewable electricity in-house and entering into direct supply contracts for green power (including guarantees of origin). Nevertheless, the BMW Group has already set itself the next target: compared to 2019, 80 % per vehicle by 2030. Besides all these achievements and new reduction targets, from 2021, the Group will make the remaining carbon emissions from Scope 1 and Scope 2 completely carbon-neutral by using voluntary offset certificates.

Target reference number

NZ2

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Int1

Target year for achieving net zero

2050

Is this a science-based target?

No, but we are reporting another target that is science-based

Please explain (including target coverage)

In view of the long-term nature of its targets and the fact that, from today's perspective, the technological and economic route remains uncertain, the BMW Group sets its targets one decade at a time. Nevertheless, the BMW Group has given a commitment to achieve climate neutrality across the entire value chain by no later than 2050. The BMW Group expects environmental and social standards to be upheld by all participants in the supply chain, including those delivering critical raw materials. The BMW Group aims to ensure the most sustainable supply

chain in the industry. We will achieve a climate-neutral business model spanning the entire value chain by 2050. We intend to close the material cycle further – for instance, by increasing the percentage of secondary material in our vehicles. This lowers CO2 emissions significantly compared to using primary material. We will be sharing how we plan to drive towards a circular economy at the IAA MOBILITY 2021.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	396	
To be implemented*	31	4,035
Implementation commenced*	32	8,832
Implemented*	156	31,063
Not to be implemented	56	

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in production processes

Waste heat recovery

Estimated annual CO2e savings (metric tonnes CO2e)

252

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

51,150

Investment required (unit currency – as specified in C0.4)

155,400

Payback period

1-3 years

Estimated lifetime of the initiative

16-20 years

Comment

In BMW Group's paint shop in Araquari (Brazil) we use hot water operated heat exchangers to heat the water for pretreatment in the paint store. This reduces natural gas consumption by about 1,400 MWh per year.

Initiative category & Initiative type

Energy efficiency in production processes

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

724

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

138,831

Investment required (unit currency – as specified in C0.4)

0

Payback period

<1 year

Estimated lifetime of the initiative

Ongoing

Comment

In BMW Group's paint shop in our vehicle production site in Regensburg (Germany) we optimized our drying process and operate only one of our two dryer tubes in 2020. This reduces natural gas consumption by about 3,000 MWh and electricity consumption by about 300 MWh.

We calculate Scope 2 emission reductions throughout C4.3 using the "location-based" method in accordance with GHG Protocol Scope 2 Guidance: Overall third-party electricity and heat purchased is calculated using emission factors from the Association of the German Automotive Industry (VDA). Due to our 100 percentage of electricity from renewable sources this is more appropriate to make CO2 reductions from energy efficiency measures visible.

Initiative category & Initiative type

Energy efficiency in production processes
Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

522

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

76,438

Investment required (unit currency – as specified in C0.4)

0

Payback period

<1 year

Estimated lifetime of the initiative

16-20 years

Comment

In BMW Group's paint shop in Shenyang (China), the production speed was increased from 38 U/h to 39 U/h by shorting distance between skids. This reduces natural gas consumption by about 700 MWh and electricity consumption by about 700 MWh.

We calculate Scope 2 emission reductions throughout C4.3 using the "location-based" method in accordance with GHG Protocol Scope 2 Guidance: Overall third-party electricity and heat purchased is calculated using emission factors from the Association of the German Automotive Industry (VDA). Due to our 100 percentage of electricity from renewable sources this is more appropriate to make CO2 reductions from energy

efficiency measures visible.

Initiative category & Initiative type

Energy efficiency in buildings
Heating, Ventilation and Air Conditioning (HVAC)

Estimated annual CO2e savings (metric tonnes CO2e)

567

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

332,058

Investment required (unit currency – as specified in C0.4)

1,218,000

Payback period

4-10 years

Estimated lifetime of the initiative

16-20 years

Comment

In BMW Group's paint shop in Oxford (UK) we utilized the temperature and humidity window in the paint booths made possible by PV. This reduces natural gas consumption by about 2,800 MWh.

Initiative category & Initiative type

Energy efficiency in buildings
Heating, Ventilation and Air Conditioning (HVAC)

Estimated annual CO2e savings (metric tonnes CO2e)

482

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

88,110

Investment required (unit currency – as specified in C0.4)

100,000

Payback period

1-3 years

Estimated lifetime of the initiative

16-20 years

Comment

In BMW Group's paint shop in Munich (Germany) we reduced the air sink rate in the control zones BC/CC in our Integrated Paint Process (IPP) 1+2. This reduces natural gas consumption by about 2,000 MWh and electricity consumption by about 200 MWh.

We calculate Scope 2 emission reductions throughout C4.3 using the "location-based" method in accordance with GHG Protocol Scope 2

Guidance: Overall third-party electricity and heat purchased is calculated using emission factors from the Association of the German Automotive Industry (VDA). Due to our 100 percentage of electricity from renewable sources this is more appropriate to make CO2 reductions from energy efficiency measures visible.

Initiative category & Initiative type

Energy efficiency in buildings
Heating, Ventilation and Air Conditioning (HVAC)

Estimated annual CO2e savings (metric tonnes CO2e)

285

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

52,065

Investment required (unit currency – as specified in C0.4)

130,000

Payback period

1-3 years

Estimated lifetime of the initiative

16-20 years

Comment

In BMW Group's paint shop in Munich (Germany) we changed the airlock conversion function for the BC/CC booth of the Integrated Paint Process (IPP) 1+2 from fresh air to recirculated air. This reduces natural gas consumption by about 1,200 MWh and electricity consumption by about 100 MWh.

We calculate Scope 2 emission reductions throughout C4.3 using the "location-based" method in accordance with GHG Protocol Scope 2 Guidance: Overall third-party electricity and heat purchased is calculated using emission factors from the Association of the German Automotive Industry (VDA). Due to our 100 percentage of electricity from renewable sources this is more appropriate to make CO2 reductions from energy efficiency measures visible.

Initiative category & Initiative type

Energy efficiency in production processes
Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)

496

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

86,192

Investment required (unit currency – as specified in C0.4)

305,082

Payback period

4-10 years

Estimated lifetime of the initiative

16-20 years

Comment

In BMW Group's assembly in Spartanburg (US) we replaced 46 hot waterheaters with 16 gas heaters. This reduces natural gas consumption by about 2,700 MWh.

Initiative category & Initiative type

Energy efficiency in production processes

Smart control system

Estimated annual CO2e savings (metric tonnes CO2e)

309

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

121,120

Investment required (unit currency – as specified in C0.4)

1,680,000

Payback period

11-15 years

Estimated lifetime of the initiative

16-20 years

Comment

In BMW Group's paint shop in Oxford (UK) we replaced the current burner technology with more efficient alternatives. This reduces natural gas consumption by about 1,700 MWh.

Initiative category & Initiative type

Energy efficiency in production processes

Other, please specify

Energy efficiency measures

Estimated annual CO2e savings (metric tonnes CO2e)

27,426

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

9,015,708

Investment required (unit currency – as specified in C0.4)

18,342,957

Payback period

1-3 years

Estimated lifetime of the initiative

11-15 years

Comment

In 2020 further 148 measures lead to a reduction of additional 27,425 t CO2 per year. Due to this large number we concentrated above on 8 exemplary measures with high efficiency improvements. Instead of adding further 148 entries which would be similar to the above ones, with decreasing contributions to CO2 reduction, we add here only one additional entry. This entry collects all the additional measures from our worldwide continuous improvement process and investments in specific efficiency measures for existing technologies.

We calculate Scope 2 emission reductions throughout C4.3 using the “location-based” method in accordance with GHG Protocol Scope 2 Guidance: Overall third-party electricity and heat purchased is calculated using emission factors from the Association of the German Automotive Industry (VDA). Due to our 100 percentage of electricity from renewable sources this is more appropriate to make CO2 reductions from energy efficiency measures visible.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Internal price on carbon	Climate change and rising energy prices demand efficient energy usage as well as the increased use of alternative energy sources. Our target is to be leading in the usage of renewable energies. Furthermore, achievements will not only improve the company's environmental impact assessment but, due to increasing energy prices, also the company's profitability. This drives investment to reduce carbon emissions and thereby avoids rising costs for energy and expected costs for CO2-emissions due to "cap and trade", carbon taxes, etc. Investments are internally assessed with an integrated catalogue of measurements for quality, productivity and efficiency. This catalogue also accounts for an internalization of external CO2 costs, e.g. from carbon trading schemes, on an investment level.
Compliance with regulatory requirements/standards	Compliance with regulatory requirements and standards is one of the basic prerequisites for the success of the BMW Group. Current law provides the binding framework for our wide range of activities around the world. Markets such as the US, Japan, Korea, China and Europe are introducing increasingly strict carbon emissions performance requirements for

	vehicles. The increasing number of regulations and standards drives investment in emissions reduction activities and thereby fosters innovation.
Internal finance mechanisms	The integration of environmental aspects in the early stages of major investment decisions increases the profitability of these projects. Considering the costs of carbon emissions in the planning phase of investment decisions increases the incentive to implement emissions reduction activities. Costs of carbon emissions are included in profitability calculations and are reflected in the return on investment.
Employee engagement	With the aim of establishing sustainability even more thoroughly in all areas of the company, a number of sustainability and environmental protection training courses have been established. Examples: sustainability topics and the relevance of resource efficiency is addressed at the introductory event for new employees as well as in courses of our trainees. In the last years, the range of training courses on offer for our employees were expanded for key strategic areas, such as e-mobility. Another example are the annual environmental protection and health and safety courses. Ideas developed are implemented within our employee's idea management system which was established a long time ago. In addition to the permanently active online supported suggestion scheme, campaigns have been running to specific subjects as for example energy saving measures. In 2020 about 1,600 ideas were implemented which address among others also sustainability issues like energy and water savings.
Internal incentives/recognition programs	The strategic approach in our BMW Group Strategy is to leverage innovative technologies, digitalization and sustainability to deliver unique customer experiences. It is part of the BMW Group culture and anchored in our processes to mitigate climate risks and explore opportunities arising from the global efforts of combating climate change. Corporate sustainability measured in balanced scorecard terms (at Group level) is included as a formal corporate objective since 2009. Detailed targets are then derived for each of the divisions within the Group in the area of climate change. Those targets are for example drastically reducing the carbon footprint compared to 2019 per vehicle by 2030 - in production by 80 percent, during the use phase by more than 40 percent and in the supply chain by at least 20 percent. Management bonus payments (all management positions) are directly linked to the fulfilment of corporate and divisional targets. The proportion of variable remuneration to total remuneration increases commensurate to the position within the corporate hierarchy.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Company-wide

Description of product/Group of products

Low-carbon products contribute to the transition of a low-carbon economy. BMW Group interpretation is, that only battery electric vehicles (BEV) and plug-in hybrid electric vehicles (PHEV) (xEV's) belong to this category. We already offer 3 BEV and 17 PHEV models in various segments in a total of 95 markets worldwide, more than any other new or traditional premium manufacturer and were e.g. the global PHEV sales leader – and not just the premium segment – since 2017. Two more BEV models will be available from 2021 and by 2023, we will offer a total of 25 electrified models, more than half of them pure electric.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify
Impact of e-mobility

% revenue from low carbon product(s) in the reporting year

8.3

Comment

To get a rough estimate of the total emissions avoided per year we calculate averaged fleet emissions of our xEV fleet in the EU28 in 2020 and compare it to EU28 fleet emissions without xEV's. We calculate one main market (about 36 % of our retail volume) because fleet emissions of xEV's and conventional cars depend on the test cycles in the corresponding legislation. We multiply the difference of 101 g CO₂/km with an averaged mileage of 15,000 km per year and the whole volume of xEV's worldwide of 192,662 units to find about 292,000 t CO₂ avoided in 2020.

To estimate the percentage of revenue for low-carbon products we divided the number of "low-carbon products" of 192,662 vehicles by the total vehicles sold (2,325,179) and get 8.3 %.

Level of aggregation

Company-wide

Description of product/Group of products

The use of all BMW Group cars sold in 2020 enable our customers to reduce CO₂ emissions, both compared to the use of comparable products of competitors as well as compared to older BMW Group vehicles which are to be replaced. Starting in 2007 we step by step introduced Efficient Dynamics (ED) technologies in the standard configuration. We continuously improve and extend the ED technology package to bring down the CO₂ emissions from vehicle generation to vehicle generation. In 2020, we offered 3 BEV and 17 PHEV models and sold 192,662 PHEVs and BEVs (xEVs). By 2023, we plan to offer 25 electrified models, of which more than half will be BEVs. We expect the proportion of electrified vehicles in the total deliveries is to rise to at least 25 % in 2025. We were e.g. able to reduce CO₂ emissions of our newly sold vehicles in Europe (EU-28) by around 53 % between 1995 and 2020. The fleet averaged CO₂ emissions per kilometre worldwide in 2020 calculated from the core market values EU28, USA, China, Japan and Korea were 133 g CO₂/km (2019: 140 g CO₂/km) when taking into account properly the new EU28 test cycle reporting requirements in both years.

Other examples how our products and services contribute to avoid GHG emissions are our car-sharing services SHARE NOW or features such as ConnectedDrive or ECO PRO mode or eDrive Zones:

(1) In 2020 our premium car-sharing services SHARE NOW had several million customers in 16 cities and 8 countries with more than 2,000 electric cars in the fleet.

(2) ConnectedDrive is a package of intelligent technologies that interconnect the driver, vehicle occupants, the vehicle itself and the

environment. Contributions are made e.g. by identifying the fastest and most efficient routes or simplifying the search for a parking place – an activity that currently still accounts for about 30 % of city traffic.

(3) All BMW models come standard with a Drive Performance control for activating the ECO PRO mode. Depending on individual driving style, the ECO PRO mode allows additional fuel savings of about 15 %. As this mode is not activated in the usual test cycles, the full fuel savings are realized only in real day-to-day driving.

(4) The new eDrive Zone technology automatically switches plug-in hybrids to fully electric driving mode when entering an environmental zone. The Group has already introduced this function in over 80 European cities.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

Use phase fuel consumption

% revenue from low carbon product(s) in the reporting year

82

Comment

To get a rough number we proceed as for “low-carbon products” and calculate the total CO₂ emissions avoided in 2020 for EU28 (about 36 % of retail volume). Each model equipped with the newest Efficient Dynamics technology package saves annually a certain amount of fuel when compared to its predecessor (we compare the fuel consumption in the New European Driving Cycle and assume cars to be driven by 15,000 km each year on average). Summing up the fuel saving of all vehicles with the Efficient Dynamics technology package sold in Europe (EU28) but not taking into account the BEVs and PHEVs sold in 2020 gives a total amount of gasoline and diesel saved. Applying the emissions factor of 2.38 CO₂e per litre for vehicles with gasoline engines and 2.66 kg CO₂e per litre (diesel engines) and a GWP of CO₂ emissions equal to 1, the total amount of 160,000 metric tons CO₂e avoided is derived. We extrapolate emissions avoided worldwide by dividing the EU28 figure by 36 % and find round about 444,000 t CO₂. Since we estimate in this category avoided emissions by third parties we add to the avoided emissions worldwide from conventional cars the avoided emissions from low carbon products to find about 736,000 t CO₂ avoided. The percentage of total revenues from products in 2020 which avoid emissions is calculated as follows: To estimate the percentage of revenue for products and services avoiding emissions we divide the revenues from the automotive segment by the total revenue of the BMW Group and find 82 %.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

642,259

Comment

Scope 2 (location-based)

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

1,420,172

Comment

Scope 2 (market-based)

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

302,574

Comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

European Union Emission Trading System (EU ETS): The Monitoring and Reporting Regulation (MMR) – General guidance for installations

European Union Emissions Trading System (EU ETS): The Monitoring and Reporting Regulation (MMR) – General guidance for aircraft operators

ISO 14064-1

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO₂e?

Reporting year

Gross global Scope 1 emissions (metric tons CO₂e)

642,885

Comment

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO₂e?

Reporting year

Scope 2, location-based

1,250,572

Scope 2, market-based (if applicable)

84,257

Comment

Market-based emissions were calculated in accordance with the GHG Protocol Scope 2 Guidance. Landfill gas and wood pellets used in our operations as well as electricity from renewable energy sources has been multiplied with an emission factor of zero when calculating the BMW Group CO2 emissions. We applied our supplier's electricity labelling in Germany plus updated VDA factors.

Location-based emissions were calculated by multiplying the third-party electricity and heat purchased with the newest VDA factors (VDA: German Automotive Association).

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source

Some international R&D offices, BMW Group owned branches and other buildings.

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not relevant

Explain why this source is excluded

These emissions are estimated to account for less than 5 % of our total CO₂e emissions. By assessing and managing our CO₂ emissions, we are driven by materiality. We therefore focused first on our vehicle production sites where about 90 % of emissions occur. Next largest amount of emissions stem from administration and R&D located in Munich as well as from the motorcycle production sites. These are included in our CDP response since 2015 and are externally verified by PwC since 2016. The same is true since 2018 for administration and R&D of BMW Group's Joint Venture BBA in Shenyang, China. We consider emissions from other international R&D offices, BMW Group owned branches and other buildings as to be not relevant because they account for less than 5 % of total emissions but collection would cause disproportionately high costs since various locations distributed around the world contribute (disadvantageous cost / benefit relation).

Source

CO₂e emissions from VOC and N₂O.

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not relevant

Explain why this source is excluded

These emissions in CO₂ equivalent account for <1 % of our total CO₂ equivalent emissions. By assessing and managing our CO₂ emissions, we are driven by materiality. Due to the very small percentage these emissions are therefore not listed in our BMW Group Report 2020. To be consistent with the already published data we omit them here too.

Remark: Nevertheless, reduction of VOC is an important target but not due to its carbon potential but its effects on human health. Between 2006 and 2020 solvent emissions were already reduced by 67.7 %.

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

16,234,959

Emissions calculation methodology

(i) Types and sources of data: The BMW Group analyses the environmental impact over the entire product life cycle and monitors the respective targets with the well-established instrument of life cycle analysis (LCA; ISO 14040 / ISO 14044) using the commercial life cycle inventory GaBi. Main input for the LCAs are detailed, car model specific material inventories, containing weights and material compositions of all parts. Emission figures are derived from processing procedure models, data as well as emission factors of GaBi. Global warming potentials (GWP) applied are from the Institute of Environmental Sciences (CML) of the University Leiden (Netherlands). Emissions from purchased goods and services are one contribution to the overall emission figure calculated from the LCAs which can be separated. To calculate the emission figure we used in addition exact volumes of all vehicles respectively model types produced in 2020.

(ii) Data quality: The data quality of our product specific material inventories and therefore the basis of our calculations are assessed to be high. Limitations in exactness come from two sources: (1) Use of industry average processing models and average data of GaBi, necessary as the BMW Group depends on information from members of the supply chain who do not yet report their Scope 1 & 2 emissions to provide exact figures. (2) BMW Group prioritized the main models (1, 3, 5, 7, X3, X5, i3) in analyzing full scale LCAs. Other sale figures are attributed to the most comparable model to calculate total CO₂ emission from purchased goods and services. The data as well as the emission figure has been checked by PwC in limited assurance.

(iii) Methodologies, assumptions, allocations: Based on detailed material inventories we calculated the LCAs of the BMW 1, 3, 5, 7, X3, X5 Series and i3 with the life cycle inventory GaBi and the CML GWPs and extracted the emission figures of the purchased goods and services. We then allocated all vehicles produced in 2020 to the model which fits best. Multiplying the number of assigned vehicles with the emission figure of the corresponding model we calculated as sales weighted emission figure 16,234,959 metric tons CO₂e for purchased goods and

services.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

Capital goods

Evaluation status

Not relevant, explanation provided

Please explain

BMW Group focuses on Scope 3 emission categories which are identified as relevant according to the following two criteria: share in total BMW Group Scope 3 emissions and influence of BMW Group on emission reductions. We do not regard this Scope 3 category to be of particular relevance because of our limited influence on these suppliers. The corresponding emissions are estimated to be below 5 % of our total Scope 3 emissions in 2020. The selection of new equipment or buildings focuses on the use phase (increased resource efficiency, minimized CO2 emissions). Our influence on operations and therefore on CO2 emissions of these kinds of suppliers is less than e.g. for suppliers of production material where we often have closely collaborated for many years. Nevertheless, measures to improve CO2 emissions performance are the same applying for all direct and indirect suppliers which are described in more detail in C12.1a (e.g. contractually fixed requirement to install an environmental management system).

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Not relevant, explanation provided

Please explain

BMW Group focuses on Scope 3 emission categories which are identified as relevant according to the following two criteria: share in total BMW Group Scope 3 emissions and influence of BMW Group on emission reductions. According to our estimates the Scope 3 emissions of "Fuel-

and-energy-related activities” are below 1 % of total BMW Group Scope 3 emissions. Furthermore, BMW Group cannot directly influence the efficiency losses in energy grids and transport. Consequently, the Scope 3 category “Fuel-and-energy-related activities” is not of substantial relevance. To get a rough estimate of the scope 3 emissions of “Fuel-and-energy-related activities” we used fuel and country specific CO2 emission factors for indirect emission (provided by GEMIS, VDA emission factors and IEA CO2 emissions from fuel combustion 2006). These emission factors were multiplied with real activity data on the fuel input of BMW Group.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1,322,859

Emissions calculation methodology

- (i) Types and sources of data: Real activity data in tons transport capacity per kilometer was used to calculate CO2 emissions for upstream transportation and distribution. Total transport capacity (inbound and outbound) in 2020 was 37,245 million tkm. With the 2020 system boundaries, we have reached an estimated coverage of about 90 % of the CO2 emissions from logistics. The scope currently comprises: Inbound volumes (material supplies to plants and spare parts delivery) for BMW and MINI vehicle plants worldwide as well as for delivery of spare parts to central parts distribution. Outbound volumes (vehicle distribution of vehicles and spare parts) are included up to distribution centers in markets worldwide and for certain markets to the trade, including contract manufacturing. The volume of carbon emissions in 2020 is not directly comparable with the figures reported for previous years, as the scope of analysis has been expanded to include local data from suppliers involved in supplying specified production plants as well as from service providers involved in distributing vehicles to dealerships in specified markets and spare parts deliveries. Emission factors for freight by road (about 73 g CO2/tkm), train (between 14 and 23 g CO2/tkm depending on the train type), air (570 respectively 733 g CO2/tkm depending on the airplane type) and ship (about 10 g CO2 /tkm for container carriers and 33 g CO2 /tkm for car carriers) are used according to direct reporting of CO2 factors by transport companies and Tremod.
- (ii) Data quality: The data quality is assessed to be high as real activity data was used. The data as well as the emission figure has been checked by PwC in limited assurance.
- (iii) Methodologies, assumptions, allocations: CO2 emissions are calculated in accordance with DIN EN 16258. Transport capacities for road, rail, air and sea transport were measured. Limitations in scope are described under (i). For each transport capacity average emission factors

described under (i) were multiplied with transport capacities. Other assumptions than average emissions were not made.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

Waste generated in operations

Evaluation status

Not relevant, explanation provided

Please explain

BMW Group focuses on Scope 3 emission categories which are identified as relevant according to the following two criteria: share in total BMW Group Scope 3 emissions and influence of BMW Group on emission reductions. According to our estimates the Scope 3 emissions of “Waste generated in operations” are below 0.1 % of total BMW Group Scope 3 emissions. In consequence this category is not of substantial relevance. However, due to our strong commitment to recycling and closed loops with many initiatives implied already in recent years total waste for disposal was reduced to 7,168 tons in 2020 (–82.4 % per vehicle produced since 2006) which is equivalent to a reduction in Scope 3 emissions in this category.

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

25,217

Emissions calculation methodology



(i) Types and sources of data: CO2 emissions from business travel are calculated from real activity data in regard to destinations, transport kilometers and the mode of transport used. Business travel in scope covers more than 90 % of the total BMW Group business travel. Air travel is based on data from sold tickets respectively passenger miles booked with Bavaria-Lloyd Reisebüro GmbH (German and Austrian entities), global business travel is based on data delivered from the international BMW Group offices. Travel with rental cars is based on data of all bookings (national and international) within the BMW accounts with Sixt and AVIS. Travel by train is considered without Germany (our German rail business travel is CO2 neutral). To calculate the emission figure from these data we used the publicly available “GHG Protocol tool for mobile combustion. Version 2.6”. The emission factors of this tool come from the UKs DEFRA, the US EPA and the IPCC 2006 Guidelines for National Greenhouse Gas Inventories.

(ii) Data quality: The data quality is assessed to be high as real activity data was used. A few markets send only a list of destinations. In this case we calculated the corresponding distances by our own. The data as well as the emission figure has been checked by PwC in limited assurance.

(iii) Methodologies, assumptions, allocations: In a few markets we had to calculate the travel distances from the delivered lists of destinations. We allocated the business travel respectively the distances travelled to the categories of each mode of transport as given by the GHG Protocols mobile combustion tool (e.g. domestic, short or long haul air travel with economy, business or first class). We put in the distances into the mobile combustion tool (excel based). The emission figure for business travel of 25,217 metric tons CO2e is calculated automatically by this tool. The decrease compared to 2019 is due to the pandemic-related reduction in travel activities.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

166,586

Emissions calculation methodology

(i) Types and sources of data: To calculate CO₂-emissions from employee commuting BMW Group relies on real activity data for trips to and from destinations for 80 % of employees of the BMW Group. The travel data was aggregated to the following modes: “car kilometers”, “public transport kilometers”, “plant bus kilometers” and “bicycle” respectively “foot kilometers”. These activity data were multiplied with corresponding emission factors: For the total sum of kilometers driven with the employee cars we used 182 g CO₂/km, for the total sum of kilometers travelled via public transportation we used 75 g CO₂/km and for the total sum of kilometers driven with the plant buses we used 830 g/km. The average emission factors for car travel and public transport were taken from the ifeu institute and Tremod. For plant busses we gathered information on the fuel consumption directly from the bus companies and used the diesel emission factor of 2.66 kg CO₂ per liter. The mileage was assessed by census at the production sites.

(ii) Data quality: The data quality is assessed to be high as real activity data was used. The data as well as the emission figure has been checked by PwC in limited assurance.

(iii) Methodologies, assumptions, allocations: For the activity data census were carried out in recent years and further validated by comparisons with parking spot use, public transport job ticket holders, plant bus registrations and the number of available parking spots for bicycles. Further assumptions based on the census were: 1.05 BMW employees travelled on average per car and the average daily distance was 34 km. The average public transport distance was 20 km, the average plant bus distance was 37 km and the bicycle and pedestrian average distance was 3 km. To calculate the emission figure we summed up the kilometers travelled by the employees in each mode in 2020 multiplied with the corresponding emission factors and then finally we extrapolated it to the total number of associates. The figures from 2020 onwards are not directly comparable with previous years due to the improved data basis. In some cases, figures are extrapolated based on surveys conducted at major national and international BMW Group locations.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

BMW Group focuses on Scope 3 emission categories which are identified as relevant according to the following two criteria: share in total BMW Group Scope 3 emissions and influence of BMW Group on emission reductions. Emissions from upstream leased assets belonging to our production network are included in our Scope 1 and Scope 2 emission figures. In addition to this, leased assets worldwide such as office buildings not included in Scope 1 and Scope 2 make a negligible contribution when compared to our total Scope 3 emissions. Therefore, emissions from upstream leased assets are of minor relevance.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Please explain

BMW Group focuses on Scope 3 emission categories which are identified as relevant according to the following two criteria: share in total BMW Group Scope 3 emissions and influence of BMW Group on emission reductions. The Scope 3 category “Downstream transportation and distribution” is assessed to be close to 0 and so to be of no relevance: According to the GHG Protocol “Downstream transportation and distribution” is defined as “Transportation and distribution of products sold by the reporting company between the reporting company’s operations and the end consumer (if not paid for by the reporting company), including retail and storage (in vehicles and facilities not owned or controlled by the reporting company)”. Transportation of our products to pick-up of customer in either BMW Group owned or BMW Group franchised dealerships is paid for by BMW Group and therefore included in the Scope 3 category “Upstream transportation and distribution”. Retail and storage of our products is also accordingly accounted for in either Scope 1 & 2 (BMW Group owned dealerships) or in the Scope 3 category “Franchises”.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Please explain

BMW Group focuses on Scope 3 emission categories which are identified as relevant according to the following two criteria: share in total BMW Group Scope 3 emissions and influence of BMW Group on emission reductions. BMW Group’s core business, premium mobility products and

services are consumer goods, which are not further processed. We sell small amounts of engines / powertrains to other companies resulting in negligible emissions from further processing. Consequently, the Scope 3 category “Processing of sold products” is not relevant for BMW Group.

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

46,200,385

Emissions calculation methodology

(i) Types and sources of data: The emission figure is based on real activity data of the main sales markets Europe (EU28), USA, China Japan and Korea, covering about 88 % of our worldwide sales. By law we have to know the exact average CO₂ emission figure of each car and, in consequence, for the fleet of new vehicles sold in the corresponding market (e.g. 99 g CO₂/km in EU28 (including Norway and Iceland) in 2020 when taking into account properly the new EU28 test cycle as well as reporting requirements in place since 2018 as described in footnote 2 on p. 77 in BMW Group Report), accounting for different driving cycles depending on the country and according to national legislation.

Furthermore, we used the sales volumes of 2020 in these markets as well as the total sales volume of 2,325,179 vehicles.

(ii) Data quality: Due to the regulated and standardized measurement of the CO₂ emissions in driving cycles of the corresponding markets, data quality is assessed to be high. The data as well as the emission figure has been checked by PwC in limited assurance.

(iii) Methodologies, assumption, allocations: To calculate total emissions from the use of sold products additional assumption is an average mileage of 150,000 km over life time. We multiplied the average fleet emissions (g CO₂/km) of the above mentioned markets with the corresponding sales volumes to get a sales volume weighted average emission figure. Multiplying this figure with the average mileage of 150,000 km and the total worldwide sales volume gives the total emissions from the use phase of our cars sold in 2020.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

End of life treatment of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

1,150,857

Emissions calculation methodology

(i) Types and sources of data: BMW Group analyses the environmental impact over the entire product life cycle and monitors the respective targets with the well-established instrument of life cycle analysis (LCA; ISO 14040 / ISO 14044) using the commercial life cycle inventory GaBi. Main input are detailed, car model specific material inventories, containing weights and material compositions of all parts. Emission figures are derived from processing procedure models, data as well as emission factors of GaBi. GWPs applied are from the Institute of Environmental Sciences (CML) of the University Leiden (Netherlands). Emissions from end of life treatment of sold products are one contribution to the overall emission figure calculated from the LCAs which can be separated. To calculate the emission figure we used in addition exact volumes of all vehicles respectively model types produced in 2020.

(ii) Data quality: The data quality of our product specific material inventories and therefore the basis of our calculations is assessed to be high. Limitations in exactness come from two sources: (1) Use of industry average processing models and average data of GaBi. (2) BMW Group prioritized the main models (1, 3, 5, 7, X3, X5, i3) in analyzing full scale LCAs. Other sales figures are attributed to the most comparable model to calculate total CO₂ emission from end of life treatment of sold products. The data as well as the emission figure has been checked by PwC in limited assurance.

(iii) Methodologies, assumption, allocations: Based on detailed material inventories we calculated the LCAs of the BMW 1, 3, 5, 7, X3, X5 Series and i3 with the life cycle inventory GaBi and the CML GWPs. When modelling the end of life treatment we follow the standard processes as given by the EU directive for end-of-life vehicles (2000/53/EC) as well as the directive (2005/64/EC). When calculating the emission figures we did not account for “credits” from energy recovery or recycling. We extracted the emission figures of the end of life treatment of sold products from the LCAs. We then allocated all vehicles sold in 2020 to the model which fits best. Multiplying the number of assigned vehicles with the emission figure of the corresponding model we calculated as sales weighted emission figure 1,150,857 metric tons CO₂e from the end of life treatment of sold products in 2020.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

BMW Group focuses on Scope 3 emission categories which are identified as relevant according to the following two criteria: share in total BMW Group Scope 3 emissions and influence of BMW Group on emission reductions. Scope 3 emissions from downstream leased assets stem from Alphabet, which is a multi-marque fleet funding company, part of the BMW Group, currently operating in more than 20 countries. To calculate a total emission figure we have to exclude from the total volume of lease contracts the leased cars of the BMW Group since these are already included in the calculation of the use phase emissions. Emissions from vehicles of other brands contribute to the whole Scope 3 emissions <1 %. Furthermore, BMW Group has limited influence on the fuel efficiency of vehicles from other OEMs as well as on customer's preferences. Therefore, we consider this category as "Not relevant, explanation provided".

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

BMW Group focuses on Scope 3 emission categories which are identified as relevant according to the following two criteria: share in total BMW Group Scope 3 emissions and influence of BMW Group on emission reductions. According to our estimates the Scope 3 emissions of "Franchises" are below 2 % of total BMW Group Scope 3 emissions. Furthermore, BMW Group has limited influence on BMW Group dealerships, for which we do not have operational control. Nonetheless, we started raising awareness of resource- and CO2-matters amongst our international, independent dealer network, by launching a sustainability initiative within the sales & marketing division of the BMW Group, also involving the country representatives. Part of this initiative is a worldwide dealer competition on 'sustainability leadership' amongst our entire dealer network. Due to the relative small amount of total Scope 3 emissions in the category "Franchises" and limits to our operational

influence we assess “Franchises” as not of particular relevance concerning BMW Group’s Scope 3 emissions. To get a rough estimate of the Scope 3 emissions of “Franchises” we calculated the intensity figure for CO2 emissions / per automobile sold in BMW Group owned dealerships in Germany, relying on directly monitored information on CO2-emissions. This intensity figures were then multiplied with global retail figures, excluding the retails of BMW Group owned dealerships, to estimate the total CO2-emissions of BMW Group’s independent global dealership network. We acknowledge limited accuracy due to the assumptions of “new vehicles sold” as CO2-intensity for total dealership CO2 emissions.

Investments

Evaluation status

Not relevant, explanation provided

Please explain

BMW Group focuses on Scope 3 emission categories which are identified as relevant according to the following two criteria: share in total BMW Group Scope 3 emissions and influence of BMW Group on emission reductions. According to our estimates the Scope 3 emissions from “Investments” are significantly below 1 % of the total BMW Group Scope 3 emissions. Due to the low amount of emissions in relation to the total BMW Group Scope 3 emissions the Scope 3 category “Investments” is not of substantial relevance. To estimate the emissions, we analyzed in a first step all assets and identified those with material emissions (companies in the transportation or production sector, BMW Group share >5 %). The joint venture BMW Brilliance Automotive Ltd. (Shenyang, China) is a major example which however is already included in BMW Group’s Scope 1 & 2 emissions. SGL Carbon Fibers LLC (Delaware, USA) is another example. We then estimated roughly from energy data and the newest VDA emission factors corresponding CO2 emissions.

Other (upstream)

Evaluation status

Please explain

Other (downstream)

Evaluation status

Please explain

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO₂e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.000007346

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO₂e)

727,142

Metric denominator

unit total revenue

Metric denominator: Unit total

98,990,000,000

Scope 2 figure used

Market-based



% change from previous year

19

Direction of change

Decreased

Reason for change

Increased CO2 efficiency due to emission reduction activities and electricity for all BMW Group plants been sourced from 100 % renewable energies from 2020 onwards caused the decrease in CO2 emissions / revenue by 19.0 % when compared to the 2019 figure of 0.000009067.

The intensity figure is calculated by dividing emissions from production, administration and company owned vehicles and planes by revenue. In particular increase in energy efficiency as well as use of environmentally friendly and economically sustainable energy resources and purchase of electricity produced from regenerative sources helped to reduce the CO2 emissions in production and administration in 2020 by 23.0 %.

Intensity figure

0.31

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

652,795

Metric denominator

vehicle produced

Metric denominator: Unit total

2,094,224

Scope 2 figure used

Market-based

% change from previous year

14.6

Direction of change

Decreased

Reason for change

Increased CO2 efficiency due to emission reduction activities caused the decrease in CO2 emissions / vehicles produced in the BMW Group production network without volumes of partner plants by 14.6 % when compared to the 2019 figure of 0.37.

The intensity figure is calculated from Scope 1 and Scope 2 CO2 emissions from vehicle production, without company vehicles (applicable KPI for BMW Group is fleet emissions) and planes divided by the total number of vehicles produced, incl. BMW Brilliance Automotive Ltd. joint venture (Shenyang, China), not including the vehicles from the Magna Steyr and Nedcar contract production plants.

Due to an adjustment of coverage of this KPI in 2020, we have calculated the intensity metric on a pro forma basis with the same coverage (Scope 1 and Scope 2 CO2 emissions from vehicle production without company vehicles and planes) for 2019 for better comparability in this year's CDP report, and obtain a reduction from 0.37 to 0.31 of 14.6 %. In particular increase in energy efficiency as well as use of environmentally friendly and economically sustainable energy resources and purchase of electricity produced from regenerative sources helped to reduce the CO2 emissions in production in 2020 by 23.5 %.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

No

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Austria	8,123
Brazil	1,855
China	43,614
Germany	478,671
India	55
Mexico	8,520
South Africa	8,335
Thailand	22
United Kingdom of Great Britain and Northern Ireland	43,706
United States of America	49,984

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
BMW Group production network	520,095
Company owned vehicles	72,554
BMW Business Aviation	1,793
Central Administration & Research and Innovation Centers	48,443

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Comment
Transport OEM activities	520,095	Emissions from our production network (car and motorcycle production).

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Austria	42,107	0	187,035	187,035
Brazil	4,722	0	18,025	18,025
China	458,502	71,275	691,989	514,247
Germany	456,798	12,982	929,762	873,050
India	1,566	0	1,595	1,595
Mexico	40,771	0	72,935	72,935
South Africa	54,101	0	59,207	59,207
Thailand	2,094	0	3,899	3,899
United Kingdom of Great Britain and Northern Ireland	54,133	0	182,267	182,267
United States of America	135,778	0	275,411	275,411

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
BMW Group Production Network	1,091,489	68,603
Central Administration & Research and Innovation Centers	159,083	15,654

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization’s total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Transport OEM activities	1,091,489	68,603	Emissions from our production network (car and motorcycle production).

C-TO7.8

(C-TO7.8) Provide primary intensity metrics that are appropriate to your indirect emissions in Scope 3 Category 11: Use of sold products from transport.

Activity



Light Duty Vehicles (LDV)

Emissions intensity figure

0.000133

Metric numerator (Scope 3 emissions: use of sold products) in Metric tons CO2e

46,200,385

Metric denominator

p.km

Metric denominator: Unit total

348,776,850,000

% change from previous year

-5.4

Vehicle unit sales in reporting year

2,325,179

Vehicle lifetime in years

15

Annual distance in km or miles (unit specified by column 4)

10,000

Load factor

1

Please explain the changes, and relevant standards/methodologies used

Changes: Since 2007, BMW Group's Efficient Dynamics (ED) is a comprehensive technologic approach for the consistent reduction of fuel consumption and emissions in the standard configuration of all cars of the BMW Group. It includes highly-efficient cars with gradually refined combustion engines and BEVs / PHEVs. With 2 new BEV and 11 new PHEV models launched in 2020, our vehicle portfolio included 20

electrified models in various segments, thereof 3 BEV and 17 PHEV models offered in a total of 95 markets worldwide. In 2020, we sold 192,662 electrified vehicles worldwide (BEVs: 44,541; PHEV: 148,121), a 31.8 % increase compared to 2019, and led e.g. the global PHEV sales since 2017– and not just the premium segment. Worldwide fleet average CO2 emissions per kilometer fell by 5.4 % to 133 g CO2/km (2019: 140 g CO2/km), mainly due to this increase.

Standards / Methodologies: The emission figure is based on data of the main markets Europe (EU28), USA, China, Japan and Korea, covering about 88 % of our worldwide sales. By law we have to know the exact average CO2 emission figure of each car and for the fleet of new vehicles sold in the corresponding market, accounting for different driving cycles depending on the country and according to national legislation. The emissions intensity figure of 133 g CO2/km (which equals to 0.000133 t CO2/km) is calculated by multiplying the average fleet emissions (g CO2/km) of the above mentioned markets with the corresponding sales volumes to get a sales volume weighted average emission figure. To calculate total emissions additional assumption is an average kilometrage of 150,000 km over life time (10,000 km per year, 15 years of life time). Multiplying the sales volume weighted average emission figure by 150,000 km and the total worldwide sales volume of 2,325,179 vehicles gives the total emissions from the use phase of our cars sold in 2020 of 46,200,385 t CO2. We use 1 as load factor. This is consistent with worldwide regulations as well as with the worldwide fuel economy figure as presented in company communications and our Group report. Furthermore, we do not have precise information about the load factor of our vehicles due to customer's privacy.

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	169,310	Decreased	17.9	In 2020, the amount of electricity from renewable sources delivered to the BMW Group locations was increased resulting in a 169,310 t CO2 decrease when compared to 2019 and, correspondingly, to a 17.9 % decrease ($-17.9\% = (-169,310/944,833)*100$) with the 2019 Scope 1 & 2 emissions of 944,833 t CO2. Already in 2019, 100 % of the BMW Group European sites purchased green electricity from renewable energy sources, as well as our sites in China and Mexico. In 2020, all of the BMW Group locations worldwide as well as the BMW Brilliance Automotive (BBA) joint venture were delivered with electricity from renewable sources. The ramp up to 100 % green energy supply in our production sites in South Africa and the United States of America, led to a significant reduction in CO2 emissions of 169,310 tons due to the replacement of electricity produced from energy sources with a high CO2 content (in particular coal) with green electricity. Production sites with 100 % green electricity purchase previous to 2020 were not included in our calculation of change in emissions.
Other emissions reduction activities	4,660	Decreased	0.5	BMW Group systematically analyses emission reduction potentials with a special focus on the production sites owned by BMW Group and realized a 0.5 % decrease in CO2 emissions due to emission reduction activities in 2020. This corresponds to a total decrease of 4,660t CO2 ($-0.5\% = (-4,660/944,833)*100$) with the 2019 Scope 1 & 2 emissions of 944,833 t CO2. Implementation of 156 measures to improve energy efficiency of existing processes / technologies (e.g. paint shops) led to a decrease in CO2 emissions despite a pandemic-related decrease of production volume with suboptimal base load in some plants, an effect which increases energy consumption.

				Remark: Deviations from question C4.3a/b can be explained by the use of a location-based Scope 2 method in C4.3a/b and a market-based approach in this question.
Divestment				
Acquisitions				
Mergers				
Change in output	98,405	Decreased	10.4	The decrease of CO2 emissions from the BMW Group own operations of 10.4 % due to the change in output is related to the pandemic-related decrease in vehicle and motorcycle production volume (e.g. a 10.4 % decrease in vehicle production volume) and equals to 98,405 t CO2 ($10.4 \% = (98,405/944,833)*100$) with the 2019 Scope 1 & 2 emissions of 944,833 t CO2. To calculate the CO2 decrease from the 2020 emissions due to the change in output we assume constant CO2 efficiencies. Due to the significance of contract production, only vehicles manufactured at BMW Group production plants are taken into account when calculating the vehicle volume. Efficiency of contract production is assessed separately.
Change in methodology				
Change in boundary				
Change in physical operating conditions				
Unidentified				
Other	54,684	Increased	5.8	Due to the pandemic-related interruption of production in 2020, the BMW Group had a decrease in production volume of 10.4 %. This decrease had a significant impact on energy consumption per vehicle. Energy efficiency was negatively impacted by lower unit volumes but the same base load and not least also by hygiene measures such as

				<p>the requirement to increase the frequency of ventilation. The base load is the amount of power permanently required (e. g. standby consumption), regardless of how many vehicles are produced. It includes energy required for emergency and basic lighting, minimum ventilation or heating and air conditioning in standby mode.</p> <p>The BMW Group's specific energy consumption for vehicle production in 2020 therefore rose by 3.9 % to 2.12 MWh per vehicle produced compared to 2019. If specific energy consumption had remained constant at the 2019 value of 2.04 MWh per vehicle produced, the BMW Group would have emitted 54.684 t CO2 less for the production of its vehicles in 2020. The efficiency decrease therefore leads to an increase of CO2 emission of 5.8 % ($5.8 \% = (54,648/944,833)*100$) with the 2019 Scope 1 & 2 emissions of 944,833 t CO2.</p>
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C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	Yes
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization’s energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	192,967	3,415,933	3,608,900
Consumption of purchased or acquired electricity		2,154,899	0	2,154,899
Consumption of purchased or acquired heat		31,658	234,454	266,112
Consumption of purchased or acquired cooling		1,113	0	1,113
Consumption of self-generated non-fuel renewable energy		2,316		2,316
Total energy consumption		2,382,953	3,650,387	6,033,340

C8.2b

(C8.2b) Select the applications of your organization’s consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)

Diesel

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

119,187

MWh fuel consumed for self-generation of heat

119,187

MWh fuel consumed for self-cogeneration or self-trigeneration

0



Emission factor

2.66

Unit

kg CO2 per liter

Emissions factor source

Internal specification (the emission factor depends e.g. on the fuel quality and therefore has to be specified).

Comment

n/a

Fuels (excluding feedstocks)

Motor Gasoline

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

192,570

MWh fuel consumed for self-generation of heat

192,570

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.38

Unit

kg CO2 per liter

Emissions factor source

Internal specification (the emission factor depends e.g. on the fuel quality and therefore has to be specified).

Comment

n/a

Fuels (excluding feedstocks)

Natural Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

3,093,543

MWh fuel consumed for self-generation of heat

1,714,562

MWh fuel consumed for self-cogeneration or self-trigeneration

1,378,981

Emission factor

0.2

Unit

metric tons CO2 per MWh

Emissions factor source

This is an averaged emission factor for our production network. We use in our calculations country specific emissions factors from the Association of the German Automotive Industry (VDA) in its newest version. However, for oil and gas these emission factors do not vary significantly from country to country.

Comment

n/a

Fuels (excluding feedstocks)

Landfill Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

192,911

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-cogeneration or self-trigeneration

192,911

Emission factor

0

Unit

metric tons CO2 per MWh

Emissions factor source

We treat landfill gas used in our combined heat and power plant in Spartanburg (USA) as biogas with a corresponding Association of the German Automotive Industry (VDA) emission factor of 0.

Comment

n/a

Fuels (excluding feedstocks)

Fuel Oil Number 1

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

3,660

MWh fuel consumed for self-generation of heat

3,660

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.27

Unit

metric tons CO₂e per MWh

Emissions factor source

This is an averaged emission factor for our production network. We use in our calculations country specific emissions factors from the Association of the German Automotive Industry (VDA) in its newest version. However, for oil and gas these emission factors do not vary significantly from country to country.

Comment

n/a

Fuels (excluding feedstocks)

Jet Kerosene

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

6,973

MWh fuel consumed for self-generation of heat

6,973

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.07

Unit

metric tons CO2 per GJ

Emissions factor source

Internal specification (the emission factor depends e.g. on the fuel quality and therefore has to be specified).

Comment

n/a

Fuels (excluding feedstocks)

Wood



Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

56

MWh fuel consumed for self-generation of heat

56

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0

Unit

metric tons CO2 per MWh

Emissions factor source

We use in our calculations the emissions factor for biomass as given in the latest version of the Association of the German Automotive Industry (VDA) emissions factors.

Comment

n/a

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
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Electricity	581,130	581,130	57,510	57,510
Heat	2,186,589	2,186,589	72,708	72,708
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method

Unbundled energy attribute certificates, Guarantees of Origin

Low-carbon technology type

Other, please specify

Green electricity mix from solar, wind, hydropower, biomass and landfill gas

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Austria

MWh consumed accounted for at a zero emission factor

155,376

Comment

In Austria, BMW Group purchased guarantees of origin for 155,376 MWh of 100 % green electricity. Verbund AG is the electricity supplier for our engine plant in Steyr (Austria). In Steyr 100 % of electricity purchased is from renewable sources.

Sourcing method

Heat/steam/cooling supply agreement

Low-carbon technology type

Biomass

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Austria

MWh consumed accounted for at a zero emission factor

31,658

Comment

Fernwärme Steyr GmbH contractually guarantees to distribute heat generated to 100 % from the Biomass-KWK-Power Plant of Bioenergie Steyer, Ramingsdorf, to the BMW AG. In 2020 the heat distributed amounted to 31,658 MWh.

Sourcing method

Unbundled energy attribute certificates, International REC Standard (I-RECs)

Low-carbon technology type

Wind

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Brazil

MWh consumed accounted for at a zero emission factor

18,025

Comment

In Brazil for our production sites in Araquari we purchased and redeemed 18,025 MWh of I-REC standard attribute tracking certificates. This electricity was produced from wind mills.

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

Low-carbon technology type

Wind

Country/area of consumption of low-carbon electricity, heat, steam or cooling

China

MWh consumed accounted for at a zero emission factor

375,192

Comment

In China for our production sites in Shenyang, 375,192 MWh from green electricity products were purchased. This electricity was produced from wind mills.

Sourcing method

Unbundled energy attribute certificates, International REC Standard (I-RECs)

Low-carbon technology type

Wind

Country/area of consumption of low-carbon electricity, heat, steam or cooling

China

MWh consumed accounted for at a zero emission factor

139,054

Comment

In China for our production sites in Shenyang Unbundled energy attribute certificates, International REC Standard (I-RECs) has been signed to deliver 139,054 MWh produced from wind mills.

Sourcing method

Power purchase agreement (PPA) with on-site/off-site generator owned by a third party with no grid transfers (direct line)

Low-carbon technology type

Wind

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Germany

MWh consumed accounted for at a zero emission factor

26,510

Comment

Electricity from four on-site wind turbines is directly used in the Leipzig plant in Germany. In 2020 the wind turbines produced 26,510 MWh of electricity.

Sourcing method

Power purchase agreement (PPA) with a grid-connected generator with energy attribute certificates

Low-carbon technology type

Wind

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Germany

MWh consumed accounted for at a zero emission factor

181,562

Comment

In Germany, BMW Group purchased power purchase agreement (PPA) with a grid-connected generator with energy attribute certificates for 181,562 MWh of 100 % green electricity.

Sourcing method

Unbundled energy attribute certificates, Guarantees of Origin

Low-carbon technology type

Other, please specify

Green electricity mix from solar, wind, hydropower, biomass and landfill gas

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Germany

MWh consumed accounted for at a zero emission factor

663,865

Comment

In Germany, BMW Group purchased guarantees of origin for 663,865 MWh of 100 % green electricity. RWE, the balance group manager in Germany, delivers electricity to the BMW Group locations in Germany.

Sourcing method

Heat/steam/cooling supply agreement

Low-carbon technology type

Other, please specify

Düker drainage pipe systems

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Germany

MWh consumed accounted for at a zero emission factor

1,113

Comment

A total amount of 1,113 MWh of community cooling is delivered from Stadtwerke Munich (municipal utilities) to the Central Administration & Research and Innovation Center (FIZ), using near surface ground water.

Sourcing method

Unbundled energy attribute certificates, International REC Standard (I-RECs)

Low-carbon technology type

Other, please specify

Green electricity mix from solar, wind, hydropower, biomass and landfill gas

Country/area of consumption of low-carbon electricity, heat, steam or cooling

India

MWh consumed accounted for at a zero emission factor

1,595

Comment

In India, BMW Group purchased unbundled energy attribute certificates, International REC Standard (I-RECs) for 1,595 MWh of 100 % green electricity.

Sourcing method

Power purchase agreement (PPA) with a grid-connected generator with energy attribute certificates

Low-carbon technology type

Solar

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Mexico

MWh consumed accounted for at a zero emission factor

5,314

Comment

In Mexico, BMW Group purchased power purchase agreement (PPA) with a grid-connected generator with energy attribute certificates for 5,314 MWh of 100 % green electricity.

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

Low-carbon technology type

Solar

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Mexico

MWh consumed accounted for at a zero emission factor

67,621

Comment

In Mexico for our production site 67,621 MWh from green electricity products were purchased. This electricity was produced from a solar farm.

Sourcing method

Power purchase agreement (PPA) with a grid-connected generator without energy attribute certificates

Low-carbon technology type

Biomass

Country/area of consumption of low-carbon electricity, heat, steam or cooling

South Africa

MWh consumed accounted for at a zero emission factor

10,247

Comment

In Rosslyn (South Africa) a biogas-powered twin-unit power station delivered 10,247 MWh of electricity via grid. It is operated by the new independent provider Bio2Watt. The biogas used comes from recycled waste from cattle ranches and chicken farms as well as food waste.

Sourcing method

Unbundled energy attribute certificates, International REC Standard (I-RECs)

Low-carbon technology type

Other, please specify

Green electricity mix from solar, wind, hydropower, biomass and landfill gas

Country/area of consumption of low-carbon electricity, heat, steam or cooling

South Africa

MWh consumed accounted for at a zero emission factor

48,960

Comment

In South Africa, BMW Group purchased unbundled energy attribute certificates, International REC Standard (I-RECs) for 48,960 MWh of 100 % green electricity.

Sourcing method

Unbundled energy attribute certificates, International REC Standard (I-RECs)

Low-carbon technology type

Other, please specify

Green electricity mix from solar, wind, hydropower, biomass and landfill gas

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Thailand

MWh consumed accounted for at a zero emission factor

3,899

Comment

In Thailand, BMW Group purchased unbundled energy attribute certificates, International REC Standard (I-RECs) for 3,899 MWh of 100 % green electricity.

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

Low-carbon technology type

Other, please specify

Green electricity mix from solar, wind, hydropower, biomass and landfill gas

Country/area of consumption of low-carbon electricity, heat, steam or cooling

United Kingdom of Great Britain and Northern Ireland

MWh consumed accounted for at a zero emission factor

182,267

Comment

In UK, BMW Group purchased guarantees of origin for 182,267 MWh of 100 % green electricity. In UK Engie delivered BMW Group with 100 % renewable electricity backed by Renewable Energy Guarantees of Origin (REGOs).

Sourcing method

Unbundled energy attribute certificates, Renewable Energy Certificates (RECs)

Low-carbon technology type

Other, please specify

Green electricity mix from solar, wind, hydropower, biomass and landfill gas

Country/area of consumption of low-carbon electricity, heat, steam or cooling

United States of America

MWh consumed accounted for at a zero emission factor

275,411

Comment

In the USA, BMW Group purchased guarantees of origin for 275,411 MWh of 100 % green electricity.

C-TO8.5

(C-TO8.5) Provide any efficiency metrics that are appropriate for your organization's transport products and/or services.

Activity

Light Duty Vehicles (LDV)

Metric figure

2.12

Metric numerator

MWh

Metric denominator

Production: Vehicle

Metric numerator: Unit total

4,437,661

Metric denominator: Unit total

2,094,224

% change from previous year

3.9

Please explain

The metric numerator is given by the energy consumption for production of the vehicles in the BMW Group production network in 2020 of 4,437,661 MWh. This metric measures the energy efficiency of the BMW Group production technologies which is why we subtracted the losses of our own combined heat and power plant installations. The metric denominator is given by 2,094,224 vehicles produced in the BMW Group owned facilities. The metric is then calculated by dividing the energy value from the production sites with the production volume. This results in 2.12 MWh per vehicle produced. The pandemic-related interruption of production at most BMW Group plants had a significant impact on energy consumption per vehicle. Although the BMW Group's energy consumption fell in absolute terms during the pandemic, energy efficiency was negatively impacted by lower unit volumes and not least also by hygiene measures such as the requirement to increase the frequency of ventilation. Therefore, the BMW Group's specific energy consumption for vehicle production in 2020 rose by 3.9 % to 2.12 MWh compared to the previous year with 2.04 MWh per vehicle produced. Nevertheless, in 2020 we implemented e.g. 156 single measures to improve energy efficiency of existing processes / technologies (e.g. paint shops).

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C-TO9.3/C-TS9.3

(C-TO9.3/C-TS9.3) Provide tracking metrics for the implementation of low-carbon transport technology over the reporting year.

Activity

Light Duty Vehicles (LDV)

Metric

Sales

Technology

Other, please specify

Number of PHEVs and BEVs (xEVs)

Metric figure

192,662

Metric unit

Units

Explanation

It is our goal to create solutions and innovations that inspire our customers. Our BMW Group Strategy is the path to the Group’s success over the long-term. It provides a roadmap for our transformation towards sustainable and digital mobility. Our future is electric. The BMW Group develops electric vehicles that combine the advantages of sustainable mobility with a new driving experience for customers.

With 2 new BEV and 11 new PHEV models launched in 2020, our vehicle portfolio in 2020 included 20 electrified models in various segments, thereof 3 BEV and 17 PHEV models offered in a total of 95 markets worldwide. In 2020, we sold 192,662 electrified vehicles worldwide (BEVs: 44,541; PHEVs: 148,121), about 8.3 % of our total sale volume and a further increase in electrified volume by 31.8 % compared to 2019. And we led e.g. the global PHEV sales since 2017 – and not just the premium segment. Two more BEV models will be available from 2021 and by 2023, we will offer a total of 25 electrified models, more than half of them pure electric. This means electric drivetrains for many high-volume models.

We reached our aim to sell half a million electrified BMWs and MINIs on the roads by the end of 2019 and we set ourselves further ambitious targets: by 2025, the proportion of electrified vehicles in the total deliveries is to rise to at least 25 %. By 2030, we plan to have delivered at least seven million electrified vehicles.

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	

C-TO9.6a/C-TS9.6a

(C-TO9.6a/C-TS9.6a) Provide details of your organization’s investments in low-carbon R&D for transport-related activities over the last three years.

Activity

Light Duty Vehicles (LDV)

Technology area

Other, please specify
drivetrain, electrification, services

Stage of development in the reporting year

Large scale commercial deployment

Average % of total R&D investment over the last 3 years

61-80%

R&D investment figure in the reporting year (optional)

6,279,000,000

Comment

According to CDP, low carbon investments contribute to ensure that the global average temperature increase above preindustrial level stays below 2°C. In the transition phase efficiency increase in parallel to alternative technologies are needed to achieve this. Our R&D expenditures in 2020 were EUR 6.3 billion (2019: EUR 6.4 billion, 2018: EUR 6.9 billion) to develop models with further increased efficiency, PHEVs, BEVs and mobility services. Part of it goes into the further development of Efficient Dynamics (ED) technologies which are standard in our cars. These include efficient engines / gearboxes, light-weight design, ECO PRO mode, proactive driving assistant or Auto Start Stop function and energy recovery. E.g. the first models with 48-volt technology were launched in 2019. Continuing in 2020 the mild hybrid technology with latest engine technology and a 48-volt electrical system is gradually rolled out for our diesel and petrol engines to increase the recovery potential to achieve a CO2 reduction of 5-7 %. We develop scalable modular electric construction kits to be able to fit all model series with any type of drivetrain. All our brands will gradually be electrified. With 2 BEV and 11 PHEV models launched in 2020, our vehicle portfolio included 20 electrified models in various segments. Two more BEV models will be available from 2021 and by 2023, we will offer a total of 25 electrified models, more than half of them pure electric. We set ourselves ambitious targets: by 2025, the proportion of electrified vehicles in the total deliveries is to rise to at least 25 %. By 2030, we plan to have delivered at least seven million electrified vehicles.

Mobility services enable sustainable mobility patterns as well as connected and automated vehicles. This includes our mobility services (e.g. SHARE NOW car-sharing), our connectivity services (e.g. PARK NOW) and digital networking BMW Connected Services. Those services help

to find e.g. the most efficient routes and simplify the search for a parking place, saving a significant amount of fuel. Sustainable mobility and autonomous driving go hand in hand. We will be launching the next major step in autonomous driving in the BMW iX in 2021. Automated and digitally networked vehicles have the potential to reduce the number of accidents, traffic congestion and reduce emissions, especially when using electrification.

Activity

Light Duty Vehicles (LDV)

Technology area

Electrification

Stage of development in the reporting year

Full/commercial-scale demonstration

Average % of total R&D investment over the last 3 years

81-100%

R&D investment figure in the reporting year (optional)

6,279,000,000

Comment

According to CDP, low carbon investments contribute to ensure that the global average temperature increase above preindustrial level stays below 2°C. In the transition phase efficiency increase in parallel to alternative technologies are needed to achieve this.

BMW Group invests in various ways in efficiency and new technologies, namely the investment in a new competence centre for battery cells in Munich (Germany):

To sustain our leading role in e-mobility, we concentrate all our technological expertise relating to battery cells at our battery competence centre in Munich, where we began pooling our many years of experience and comprehensive expertise in 2019. The centre aims to make advances in battery cell technology and fully penetrate production processes. BMW Group intends to substantially increase the potential range of its electrified vehicles by 2030 by continuing to develop its battery cells, modules and systems. Looking to the future, the focus will be even more



on cutting battery system costs in order to make e-mobility more profitable. The competence centre represents the entire value chain of the battery cell technology – from R&D, through to the composition and design of the battery cells to recycling. Particularly in view of the high-voltage batteries needed to power electrified vehicles, which can entail the use of critical raw materials, the circular economy has a decisive role to play. The BMW Group has invested a total of EUR 200 million in the competence centre and employs 200 people here.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

 BMW-Group-Report-2020-EN.pdf

 BMW-Group-Report-2020-DE.pdf

Page/ section reference

Page 340-342 / BMW Group Report 2020, Corporate Governance: Independent Practitioner's Report (assured Scope 1 emissions are found on page 344). In addition to the "Independent Practitioner's Report" we attached the BMW Group Report with the Independent Practitioner's Report in German (p. 340-342).

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

 BMW-Group-Report-2020-EN.pdf

 BMW-Group-Report-2020-DE.pdf

Page/ section reference

Page 340-342 / BMW Group Report 2020, Corporate Governance: Independent Practitioner's Report (assured Scope 2 emissions on page 344. Location based Scope 2 emissions in Footnote 7). In addition to the "Independent Practitioner's Report" we attached the BMW Group Report with the Independent Practitioner's Report in German (p. 340-342).

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

Scope 2 approach

Scope 2 market-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

 BMW-Group-Report-2020-EN.pdf

 BMW-Group-Report-2020-DE.pdf

Page/ section reference

Page 340-342 / BMW Group Report 2020, Corporate Governance: Independent Practitioner's Report (assured Scope 2 emissions on page 344). In addition to the "Independent Practitioner's Report" we attached the BMW Group Report with the Independent Practitioner's Report in German (p. 340-342).

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category

Scope 3: Upstream transportation and distribution

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

 BMW-Group-Report-2020-EN.pdf

 BMW-Group-Report-2020-DE.pdf

Page/section reference

Page 340-342 / BMW Group Report 2020, Corporate Governance: Independent Practitioner's Report (assured Scope 3 emissions for upstream transportation and distribution are found on page 344). In addition to the "Independent Practitioner's Report" we attached the BMW Group Report with the Independent Practitioner's Report in German (p. 340-342).

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Business travel

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

 BMW-Group-Report-2020-EN.pdf

 BMW-Group-Report-2020-DE.pdf

Page/section reference

Page 340-342 / BMW Group Report 2020, Corporate Governance: Independent Practitioner's Report (assured Scope 3 emissions for business travel are found on page 344.). In addition to the "Independent Practitioner's Report" we attached the BMW Group Report with the Independent Practitioner's Report in German (p. 340-342).

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Employee commuting

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

 BMW-Group-Report-2020-EN.pdf

 BMW-Group-Report-2020-DE.pdf

Page/section reference

Page 340-342 / BMW Group Report 2020, Corporate Governance: Independent Practitioner's Report (assured Scope 3 emissions for employee commuting are found on page 344.). In addition to the "Independent Practitioner's Report" we attached the BMW Group Report with the Independent Practitioner's Report in German (p. 340-342).

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Purchased goods and services

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

 BMW-Group-Report-2020-EN.pdf

 BMW-Group-Report-2020-DE.pdf

Page/section reference

Page 340-342 / BMW Group Report 2020, Corporate Governance: Independent Practitioner's Report (assured Scope 3 emissions for purchased goods and services are found on page 344.). In addition to the "Independent Practitioner's Report" we attached the BMW Group Report with the Independent Practitioner's Report in German (p. 340-342).

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Use of sold products

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

 BMW-Group-Report-2020-EN.pdf

 BMW-Group-Report-2020-DE.pdf

Page/section reference

Page 340-342 / BMW Group Report 2020, Corporate Governance: Independent Practitioner's Report (assured Scope 3 emissions for the use of sold products are found on page 344.). In addition to the "Independent Practitioner's Report" we attached the BMW Group Report with the Independent Practitioner's Report in German (p. 340-342).

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: End-of-life treatment of sold products

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance



Attach the statement

BMW-Group-Report-2020-EN.pdf

BMW-Group-Report-2020-DE.pdf

Page/section reference

Page 340-342 / BMW Group Report 2020, Corporate Governance: Independent Practitioner’s Report (assured Scope 3 emissions for the end-of-life treatment of sold products are found on page 344.). In addition to the "Independent Practitioner’s Report" we attached the BMW Group Report with the Independent Practitioner’s Report in German (p. 340-342).

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

BMW-Group-Report-2020-EN.pdf

BMW-Group-Report-2020-DE.pdf

Disclosure module	Data verified	Verification standard	Please explain
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verification relates to			
C7. Emissions breakdown	Year on year change in emissions (Scope 1 and 2)	ISAE3000	Please read page 340-342 / BMW Group Report 2020, Corporate Governance: Independent Practitioner’s Report where it is stated that the disclosures denoted with the symbol “ $\mathbb{L} \dots \mathbb{J}$ ” and the disclosures in the sections “Dialog with Stakeholders” and “Further GRI Information” had been verified in limited assurance. We report e.g. since several years year by year Scope 1, 2 & 3 emission figures, compare them to previous years as well as with respect to our targets. Assured Scope 1, 2 & 3 from 2016 until 2020 can be found on page 344 of the BMW Group Report 2020
C7. Emissions breakdown	Year on year change in emissions (Scope 3)	ISAE3000	Please read page 340-342 / BMW Group Report 2020, Corporate Governance: Independent Practitioner’s Report where it is stated that the disclosures denoted with the symbol “ $\mathbb{L} \dots \mathbb{J}$ ” and the disclosures in the sections “Dialog with Stakeholders” and “Further GRI Information” had been verified in limited assurance. We report e.g. since several years year by year Scope 1, 2 & 3 emission figures, compare them to previous years as well as with respect to our targets. Assured Scope 1, 2 & 3 from 2016 until 2020 can be found on page 344 of the BMW Group Report 2020.
C8. Energy	Energy consumption	ISAE3000	Please read page 340-342 / BMW Group Report 2020, Corporate Governance: Independent Practitioner’s Report where it is stated that the disclosures denoted with the symbol “ $\mathbb{L} \dots \mathbb{J}$ ” and the disclosures in the sections “Dialog with Stakeholders” and “Further GRI Information” had been verified in limited assurance. We report energy consumption figures from 2016 to 2020 on page 345 of the BMW Group Report 2020
C8. Energy	Renewable energy products	ISAE3000	Please read page 340-342 / BMW Group Report 2020, Corporate Governance: Independent Practitioner’s Report where it is stated that the disclosures denoted with the symbol “ $\mathbb{L} \dots \mathbb{J}$ ” and the disclosures in the sections “Dialog with Stakeholders” and “Further GRI Information” had been verified in limited assurance. This includes all statements as well as all figures. We report e.g. since several years year by year Scope 1, 2 & 3 emission figures, compare them to previous years as well as with respect to our targets. Assured Scope 1, 2 & 3 emission figures from 2016 until 2020 can be found on page 344 of the BMW Group Report 2020. Our market-



			based emissions are verified and with them all renewable energy products. On BMW Group Report 2020 on page 99 we report the share of green electricity purchased from third parties from 2016 until 2020.
C12. Engagement	Other, please specify Supplier engagement	ISAE3000	Please read page 340-342 / BMW Group Report 2020, Corporate Governance: Independent Practitioner’s Report where it is stated that the disclosures denoted with the symbol “ \mathbb{L} ... \mathbb{L} ” and the disclosures in the sections “Dialog with Stakeholders” and “Further GRI Information” had been verified in limited assurance. We report e.g. on page 100-104 on our supply chain engagement. An overview of our stakeholder engagement can be found on page 29-32.

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

EU ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

EU ETS

% of Scope 1 emissions covered by the ETS

59

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2020

Period end date

December 31, 2020

Allowances allocated

172,551

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO₂e

381,232

Verified Scope 2 emissions in metric tons CO₂e

0

Details of ownership

Other, please specify

Own facilities operated & own aircrafts

Comment

The above-mentioned allowances (172,551) are those allocated in the reporting year 2020. The difference between the verified emissions of 381,232 metric tons CO₂e in the reporting year and the allocated allowances in the reporting year are covered with allocated allowances from the past years which we have saved due to our CO₂ efficient operations. Between 2006 and 2020, we increased energy efficiency by 38 % and reduced CO₂-emissions by 78 % per vehicle produced. Besides sourcing 100 % green electricity from 2020, we will consistently invest in optimizing energy efficiency. In 2020, we have set ourselves the goal of reducing CO₂-emissions per vehicle produced by another 80 % by 2030. Compared to 2006, this will leave less than 10 % of the original CO₂ emissions. This means that we have set ourselves the highest

reduction targets in the industry for CO2 emissions from own plants and locations - which even follows a more ambitious path than the 1.5 degree target.

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Our strategy for complying with the EU ETS is first and foremost the continuous reduction of CO2 emissions through our Clean Production strategy. Between 2006 and 2020, we increased energy efficiency by 38 % and reduced CO2 emissions by 78 % per vehicle produced. In 2020, we have set ourselves the goal of reducing CO2 emissions per vehicle produced by another 80 % by 2030 compared to the base year 2019. Compared to 2006, this will leave less than 10 % of the original CO2 emissions. This means that we have set ourselves the highest reduction targets in the industry for CO2 emissions from own plants and locations - which even follows a more ambitious path than the 1.5 degree target. We want to be the leading OEM in renewable energy usage in production and the value-added chain. We aim to have each production site worldwide being powered by the most ecologically and economically sustainable energy resource available. The USA plant in Spartanburg for example, covers around 50 % of its fuel needs by utilizing gas recovered from a nearby landfill site. In 2020, we made another step in this direction by purchasing 100 % green electricity, i. e. energy generated from renewable sources for all our locations worldwide as well as the BMW Brilliance Automotive (BBA) joint venture. Total Scope 1 and 2 CO2 emissions amounted to 727,142 tons of CO2 (2019: 944,833 tons), this is a further 23 % reduction in CO2 emissions (in 2019 we already reduced these CO2 emissions by 15.7 % when compared to 2018). Energy from renewable sources added in 2020 to about 2,383 GWh, which equals to a share of almost 40 % renewable energy.

CASE STUDY: To ensure compliance with the EU ETS all allowances of our European production sites are pooled and handled by a central function "Location Development, Energy, Environmental Protection". As a benefit of our Group-wide targets for the production network to reduce the key indicator energy consumption per vehicle produced we profit from allowances saved through our performance in previous years. In the 3rd phase of the ETS (since 2013) EUA allocation is reserved merely for heat and will face a reduction from 80 % in 2013 to 30 % in 2020. The price for EUAs increased already significantly and varied in 2020 around EUR 20-40 per ton. We expect the price to further increase significantly in the following years which is also reflected in our business case calculations. The exposure of the BMW Group is minimized due to the advancements in resource and energy efficiency. Use of cogeneration plants might cause the need to purchase additional allowances in the future, but contribute to our overall Scope 1 and Scope 2 CO2 and cost efficiency and have on a mid-term the potential, to reduce Scope 1 CO2 emissions if the availability of renewable fuels improves on a larger scale in the EU. The BMW Group uses "banking of allowances" for the 3rd Phase of the ETS.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Drive energy efficiency

Drive low-carbon investment

Identify and seize low-carbon opportunities

GHG Scope

Scope 1

Scope 2

Scope 3

Application

BMW Group's core business is the production and distribution of vehicles. The carbon price is applied company-wide for all vehicle projects.

From the EU fleet regulation until 2020 a price tag for investments in technical measures to reduce CO₂ emissions of our products (abatement costs of CO₂) in terms of opportunity costs can be derived on the basis of penalty cost. Missing the overall target by 1g leads to a price tag of EUR 475 per ton and vehicle sold.

We use a bonus / malus system in all vehicle business case (BC) calculations. We defined a g CO₂/km target line. E.g. BEVs have zero g CO₂/km emissions and get a significant bonus which contributes positively to their BC. In contrary the BC of conventional cars above the target line is negatively impacted by a malus. Due to this “internal fee”, investments are driven into low carbon products (BEVs, PHEVs) and efficient conventional cars.

Actual price(s) used (Currency /metric ton)

475

Variance of price(s) used

A single price is used for BMW Group’s core business of producing and distributing vehicles. It is used in the business calculations of all vehicle projects.

Type of internal carbon price

Internal fee

Impact & implication

COMPANY-SPECIFIC DESCRIPTION OF HOW BMW USES THE INTERNAL PRICE ON CARBON: We use this price tag as “internal fee” to steer our investments into Efficient Dynamics technologies and low carbon products (BEVs, PHEV). To do so, we use a bonus / malus system in all vehicle business case (BC) calculations. We defined a g CO₂/km target line. E.g. BEVs have zero g CO₂/km emissions and get a significant bonus which contributes positively to their BC. In contrary, the BC of conventional cars above the target line is negatively impacted by a malus.

As a result, Efficient Dynamics technologies are standard in all BMW Group cars. These include e.g. efficient engines / gearboxes, optimized aerodynamics, intelligent energy management, light-weight design, energy recovery, ECO PRO mode, active coasting and proactive driving assistant or Auto Start Stop function. With 2 new BEV and 11 new PHEV models launched in 2020, our vehicle portfolio included 20 electrified models in various segments, thereof 3 BEV and 17 PHEV models offered in a total of 95 markets worldwide. In 2020, we sold 192,662 electrified vehicles worldwide (BEVs: 44,541; PHEVs: 148,121), a further increase in electrified volume by 31.8 % compared to 2019. Two more BEV models will be available from 2021 and by 2023, we will offer a total of 25 electrified models, more than half of them pure electric.

The fleet averaged CO₂ emissions per kilometre worldwide decreased from 140 g CO₂/km in 2019 to 133 g CO₂/km in 2020. PHEVs and BEVs

contributed significantly.

Remark how the price tag is derived: Failing CO2 compliance by 1 g CO2/km in 2020 (for the EU car fleet the limit is 95 g CO2/km in average) an automotive company would have to pay EUR 95 per 1 g CO2/km for each vehicle sold. Using an averaged mileage of 200.000 km over vehicle lifetime, consistent with the Association of the German Automotive Industry (VDA) assumption, 1 g CO2/km corresponds over lifetime to 0.2 tons CO2. Therefore, if marginal costs per vehicle to reduce CO2 fleet emissions by another gram CO2/km exceed EUR 95 / 0.2 t = EUR 475/ton then opportunity costs of paying the fine would be advantageous from an economical perspective. However, paying fines instead of complying with regulations is no option for the BMW Group.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Run an engagement campaign to educate suppliers about climate change

Climate change performance is featured in supplier awards scheme

Other, please specify

Part of the supplier nomination process

% of suppliers by number

35

% total procurement spend (direct and indirect)

90

% of supplier-related Scope 3 emissions as reported in C6.5

23

Rationale for the coverage of your engagement

RATIONALE FOR THE COVERAGE OF OUR ENGAGEMENT:

In the period under review, we initiated the process to identify and assess sustainability risks at 3,220 nominated and potential locations of suppliers and sub-suppliers (2019: 3,921) worldwide. These suppliers were selected from our total number of suppliers of about 12,000 because each of them have a significant tendering volume (each EUR >2 million for production material suppliers and EUR >10 million for non-production material suppliers), making up approximately 79 % of our total procurement spends and having the most impact on climate. In 2020, the Group also asked more than 1,000 additional suppliers who, as small and medium-sized companies, did not meet the criteria to be invited to the CDP Supply Chain program to complete a carbon-related questionnaire. The activity further covered approximately another 11 % (and therefore a total of approximately 90 %) of the Group's production-related purchasing volume. The benefit cost ratio to assess the remaining high number of suppliers with the remaining 10 % of our procurement spend would be disproportionate.

"% of suppliers by number": From these numbers we find as "% of suppliers by number" assessed in the reporting year 2020 about 35 % of all suppliers (4,220/12,000). This represents about 90 % of our procurement spends.

"% Scope 3 emissions as reported in C6.5": We performed an environmental profit and loss calculation for a car representative for our vehicle fleet (3 series, about 6 % of sales). It is based on the economic model of multiregional input / output analysis as well as quality-assured data of international environment and resource statistics. Following the corresponding impact pathways until the so called "endpoints" human health, impact on nature and human made environment we derived price tags (external costs). Within the model supply chain impact has been assessed for direct suppliers (Tier 1) as well as for sub suppliers (Tier 2 – Tier n). Our Tier 1 suppliers cause roughly 23 % of CO2 emissions of the emissions from "Purchased goods and services" and "Upstream transportation and distribution". The described "Engagement &

incentivization” is primarily with our Tier 1 suppliers. Therefore “% Scope 3 emissions as reported in C6.5” are about 23 %. These are Scope 1 & 2 emissions, but our engagement strategy also includes Scope 3 emissions.

Impact of engagement, including measures of success

IMPACT OF ENGAGEMENT:

All direct and indirect suppliers with relevant contract volumes have to fill out an industry-specific sustainability questionnaire regarding the implementation of ecological, social and governance standards. Each potential new supplier must consider our sustainability requirements in their quotation. If they don't fulfil key requirements they will not be nominated. One key contractually fixed demand is to implement a certified Environmental Management System (EMS) in accordance with ISO 14001. Therefore, one impact of engagement is that all production suppliers have implemented a certified EMS before start of production. Energy consumption and CO2 emissions have to be key improvement targets. We are member of the CDP Supply Chain program. Suppliers who took part made up 79 % of our purchasing volume in 2020 (BMW Group's key suppliers). A competitive comparison of the scoring results is played back during annual supplier development interviews on top management level. Energy and CO2 efficiency improvements are considered there. In case performance is significantly behind our expectations we engage to positively impact on suppliers resource efficiency, e.g. by knowledge sharing, and agree on improvement measure. We reach agreements with key suppliers (1,225 agreed measures in 2020), e.g. to increase their share of renewable energy.

MEASURES OF SUCCESS:

We expect and check installation of a certified EMS latest at start of production (SOP) and submission of a corresponding certificate. Therefore, one key performance indicator is: 100 % of production material suppliers have an assured EMS latest at start of production. Energy, CO2 (and water) efficiency trends are assessed and are part of our suppliers rating in our supplier performance and competency management system. This is assessed with respect to our own efficiency improvements (we reduced energy consumption and GHG emission per vehicle produced by 38 % respectively 78 % between 2006 and 2020). Within the CDP Supply Chain program we measure the CDP rating (the average score of our participating suppliers is C) as well as integration of climate change measures in the strategy, targets set or share of renewable energies. We measure success against our target: 60% of our suppliers participating in the CDP Supply Chain program have at least a B rating in the CDP scoring system by 2025.

Comment

n/a

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Education/information sharing

Details of engagement

Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number

100

% of customer - related Scope 3 emissions as reported in C6.5

100

Please explain the rationale for selecting this group of customers and scope of engagement

RATIONALE FOR THE COVERAGE OF OUR ENGAGEMENT:

Scope of engagement: Climate change is an integral component of our BMW Group Strategy and considered as a key issue to be addressed. This is why we inform all of our customers (100 %) through various information channels about our efforts / achievements. Since 2007, BMW Group's Efficient Dynamics (ED) is a comprehensive technologic approach for the consistent reduction of fuel consumption and emissions in the standard configuration of cars of the BMW Group. It includes both highly-efficient automobiles with gradually refined combustion engines, all-electric cars and low-emission plug-in hybrids. ED in different levels of detail is explained on the BMW Group homepage and in main publications such as the integrated annual BMW Group report, as well as in communication channels that reach big audiences (e.g. TV spots, marketing campaigns). BMW Group is obliged by many fleet customers to fill out the ECOVADIS questionnaire as a prerequisite for tendering processes or is asked via CDP Supply Chain to explain its approach to fuel efficiency and zero emission mobility. To our customers we explain Efficient Dynamics technologies or BEV / PHEV powertrains as well as sustainability efforts on the corresponding BMW Group pages where our customers can inform themselves about technical features of the specific vehicle under interest. On launch events, in product campaigns as well as e.g. in product marketing guidelines we address ED features. We include also environmental certificates (e.g. BMW i3/i8, iX3, 740 Li/Le, 530

iA/530e) containing externally audited life cycle comparisons between new models with its predecessors and between plug-in hybrid and combustion engine cars. Furthermore, ED features are included in sales catalogues at the point of sale. Because climate-related information is shared via all these channels we assume that 100 % of our customers can access these information. This is why we selected 100 % in “% of customers by number”.

“% customer-related Scope 3 emissions as reported in C6.5”: In correspondence to the scope of engagement being 100 % (see above) we also cover 100 % of our Scope 3 emissions from the use phase.

Impact of engagement, including measures of success

DESCRIPTION OF MEASURES OF SUCCESS:

We measure market success in each market and analyze market shares, e.g. of our BEVs and PHEVs (xEVs). We measure the worldwide number of xEVs or e.g. customers of YOUR NOW, also part of the joint venture with Daimler AG. Sustainability aspects form part of the customer surveys, on products and services as well as on our sustainability performance. We conduct surveys on an annual basis for product and service optimization according to the needs of our customers. We continuously establish customer satisfaction on the basis of uniform global standards, assessing e.g. if expectations on fuel economy or services (e.g. real time traffic information, searching services for parking place) are met. We measure sustainability performance also by rating results such as DJSI or CDP. We measure fuel economy in all main markets. Financial indicators, in particular the EBIT margin in our core automotive segment, is a measure of meeting customer’s needs.

DESCRIPTION OF THE IMPACT OF CLIMATE-RELATED ENGAGEMENT:

The impact of our comprehensive information to customers on our efficiency and e-mobility efforts is a higher demand for these products. We already offer 3 BEV and 17 PHEV models in various segments in a total of 95 markets worldwide. In 2020 we sold 192,662 electrified vehicles worldwide (BEVs: 44,541; PHEVs: 148,121), a 31.8 % increase to 2019 and led e.g. the global PHEV sales since 2017 – and not just the premium segment. Average fleet CO₂ emissions per kilometer in 2020 in the core markets (EU28, USA, China, Japan and Korea) were 133 g CO₂/km. PHEVs and BEVs contributed significantly to this value.

The premium car-sharing services SHARE NOW, part of our joint venture with Daimler AG, had 2.9 million customers in 16 cities and 8 countries used with more than 2,000 electric cars in the fleet. Also, due to the digital parking service PARK NOW, as well part of our joint venture with Daimler AG, about 45 million customers in more than 1,200 cities were able to find and pay for parking spaces more quickly and easily.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

- Direct engagement with policy makers
- Trade associations
- Funding research organizations
- Other

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Other, please specify CO2-based vehicle taxations - e-mobility incentives	Support with major exceptions	<p>(1) Name of legislation: CO2-based vehicle taxations have been introduced e.g. in 20 out of 28 EU member states as well as for example in South Africa or Singapore and are under discussion in South-Korea or China and other countries as e.g. Thailand. A focus in 2020 was our engagement about WLTP related taxation systems in the EU respectively the 20 member states with CO2 based taxation as well as incentive schemes for e-mobility.</p> <p>(2) Geographies in which legislation applies: EU respectively the 20 member states with CO2 based taxations such as Germany or UK.</p> <p>(3) Type of engagement: The BMW Group is committed to enhance the fuel efficiency of its products and strongly supports the introduction of CO2-based vehicle taxation worldwide putting a price tag on CO2 emissions emitted by</p>	<p>BMW Group strongly supports the introduction of CO2-based vehicle taxation worldwide. In our engagement we do not seek a fundamental debate about the “if” of taxation of automobiles but on alternatives “how” to do it best. We promote putting a “price tag” on CO2 use phase emissions through governments but do not support a tax on engine displacement or retail price of vehicles which does not incentivize highly efficient vehicles with innovative technologies for CO2 emission reduction within the same engine displacement class. This is giving a clear signal to customers to replace an old inefficient vehicle by a new efficient one and to comparing vehicles of one category in terms of efficiency. This is all the more important since experience in major markets like UK, France and Netherlands shows that the effect of changes</p>

		<p>vehicles in the use phase but does not support a tax on engine displacement or retail price of vehicles as existent in some European countries. Beside these major exceptions already fixed in the taxation systems, which we continuously discuss, our focus in 2020 was the continuation of incentive schemes related to e-mobility, as the market success of e-mobility enables further CO2 reductions in the transport sector. As the market shares of electrified vehicles are increasing on a year to year basis still absolute sales volumes are at a low level in countries where such incentives are missing. The right political framework, such as purchasing incentives and promoting charging infrastructure, has a decisive impact on the market success of electric vehicles. Therefore, the BMW Group supports such incentive schemes. Positive development of e-mobility is happening in countries such as Norway, the UK and the USA, which do have holistic incentive schemes in place. For example, the BMW Group therefore supported the continuation of the German “Umweltbonus” and the introduction of tax benefits for company cars in 2019 which was continued and intensified with an “Innovationsprämie” in 2020.</p>	<p>in taxation is much stronger than a purely economic analysis would indicate. Additionally, we call for purchase and tax incentives for electrified vehicles to positively stimulate customer acceptance for the transition to a low carbon mobility. These incentives address the demand side to overcome the price differences of new technologies in comparison to established internal combustion engine technologies.</p>
<p>Other, please specify CO2 fleet regulation</p>	<p>Support with major exceptions</p>	<p>(1) Name of legislation: We address CO2 fleet regulations in markets such as the European Union (EU28), USA, China or South Korea. A focus in 2020 was our engagement in the USA on the Greenhouse Gas (GHG) and Fuel Economy (FE) fleet regulation for the time period beyond 2021 (2) Geographies in which legislation applies: The mentioned legislations apply to the United States of America.</p>	<p>Together with other vehicle manufacturers we reached an agreement with the US State of California which aims to reduce emissions by 3.7 % per year in the period between 2022 to 2026. We are planning to voluntarily align our fleet in all 50 states and apply a uniform standard in accordance with this guideline. Nevertheless, future target compliance is heavily</p>

	<p>(3) Type of engagement: The regulations contain footprint based CO2 targets for the OEMs and revised regulations had to be developed by the federal agencies EPA (Environmental Protection Agency) for GHG and NHTSA (National Health and Traffic Safety Agency) for FE.</p> <p>In view of the global CO2 fleet targets, the BMW Group pursues the clear objectives of meeting limits and, where we consider it to be appropriate, surpassing these. For example, together with other vehicle manufacturers we reached an agreement with the US State of California which aims to reduce emissions by 3.7 % per year in the period between 2022 to 2026. We are planning to voluntarily align our fleet in all 50 states and apply a uniform standard in accordance with this guideline.</p> <p>We already offer our customers a broad portfolio of models that we are continually expanding. By 2023, we plan to offer 25 electrified models. More than half of them will be purely electric. As one of the market leaders for e-mobility in Europe, we find that the political factors promoting e-mobility have a considerable impact on our sales. In our view, any requirements placed on vehicle manufacturers to reduce CO2 emissions need to be accompanied by an ambitious program to increase the demand for electrified vehicles in the market as e-mobility is the key enabler for ambitious CO2 reductions of transport in the passenger car segment. Instead, there are fragmented and largely ineffective national policies in a number of large markets.</p>	<p>depending on the market success of e-mobility in the US as in other major markets.</p> <p>Customer acceptance is still at very low levels so we do not anticipate a linear market development for those vehicles. A regulatory approach for improving the e-mobility framework conditions is needed e.g. in the area of customer incentives and subsidies for charging infrastructure at federal and state level.</p>
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<p>Other, please specify</p> <p>Low carbon mobility</p>	<p>Support</p>	<p>(1) Name of legislation: Development of framework conditions to reach the targets of the German Federal Government's National Development Plan for Electric Mobility including the target of "a million electric vehicles on the road in Germany by 2020".</p> <p>(2) Geographies in which legislation applies: Germany.</p> <p>(3) Type of engagement: We have contributed to the „National Platform Electromobility“ (NPE) and its successor the "National Platform Mobility" (NPM), established by the German Government (GG), since May 2010. The NPM, a body comprising highly reputed experts from industry, science and civil society, analyses the developments in the field of e-mobility and formulates recommendation on how the targets of the "national development plan electro mobility" can be reached. A board member of the BMW Group is co-head of the working group "Framework Conditions". In April 2017 NPE published its roadmap for common standards until 2020, as basis for the further run-up of the PHEV and BEV market. This roadmap addresses beside others future challenges like high power charging: vehicles as well as infrastructure should be developed for a charging power between 150 kW up to 400 kW. The GG is continuously assessing various suggestions by the NPM and supporting a broad spectrum of projects. The BMW engagement in these projects addresses the remaining issues required prior to wide-scale market introduction: increasing the range of vehicles through the installation of public fast-charging infrastructure, realization of High Power Charging, implementation of inductive charging and improving managed charging for the integration of renewable energy. The</p>	<p>We recommend addressing the areas of high priority in order to increase the market appeal of electric vehicles: a broad market penetration for electric vehicles in the business sector and support for the creation of a convenient and comfortable charging infrastructure. Many measures proposed have been adopted by the German Government by early 2015 in the electro mobility law (among them are measures like special labelling, use of bus lanes, privileged parking and specific access to restricted areas) and in the governmental funding program from mid of 2016 (direct purchase incentives, funding of public charging infrastructure and public procurement program). Besides these special rights and funding programs additional legislative measures for removing the barrier to e-mobility in everyday life are proposed especially in the field of building legislation and energy cost regulation. Only if there is a holistic approach for the energy and transport sector a successful integration of e-mobility can be achieved. The speed of implementing the charging infrastructure program and though visibility towards the customer will determine the acceptance of e-mobility at the point of sale.</p>
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	<p>GG has already implemented several of the key measures proposed by the NPE within the electro mobility law (introduced in June 2015) and the charging pillar regulation following the EU directive 2014/94/EU (introduced in June 2016): Disadvantage compensation for the purchase of electric company cars, a 10-year vehicle tax exemption for electric cars, simplification of taxing monetary benefits from charging, a EUR 300 million funding of public infrastructure, a EUR 600 million direct purchase funding (in addition to the EUR 600 million funding of the industry) that was raised in 2019 by an amount of EUR 1 billion for the government and the manufacturers for the years up to 2025 and a EUR 100 million program for public procurement.</p>	
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C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

Association of the German Automotive Industry (VDA)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The VDA nationally and internationally promotes the interests of the entire German automotive industry. VDA addresses a wide spectrum, including safety, quality and sustainability issues such as environmental protection in production, fuel efficiency and alternative drive technology as well as e-mobility. VDA promotes corresponding policies to these issues which reflect the opinion of the member companies about most appropriate actions and measures. An example of particular interest is the post 2020 CO₂ regulation in the EU. The existing regulation is aligned solely to the technical efficiency of new cars. CO₂ values in real world driving, however, are influenced by many different factors: e.g. vehicle efficiency, driving style or the CO₂ content of energy carriers. A convincing and comprehensive political strategy must consider all factors. Further reduction of fleet averaged CO₂-emissions is one component not in question by the VDA. However, the 95 g CO₂/km target in 2020 was already only achievable with great and increasingly expensive technical efforts and, in particular for premium manufacturers, electrification. The new EU fleet targets set for 2025 and 2030 are ambitious for the automotive industry as conventional drive trains need to be replaced to a high degree by electric drive trains. As the EU Commission raised the overall climate target for 2030 to -55 % compared to -40 % a review of relevant legislations contributing to the general climate goal will be executed in 2021. In consequence cars get more expensive what could prevent clients to buy new efficient cars. The previous purely supply-side regulatory methodology must be supplemented with an overall strategy on the demand side. The idea is to reduce CO₂ emissions of all road transportation, not just those from new cars. VDA advocates measures to decrease emissions of existing fleets and proposed e.g. as instrument to incentivize decarbonisation of transportation fuels the inclusion into the Emission Trading System ("Cap and Trade"). Due to price transmission this not only effects fuel producers but also incentivizes car owners to drive fuel efficient cars and to change their driving behaviour. VDA advocates to support e-mobility. EU and local regulations should temporarily subsidize e-mobility. Charging infrastructure and measures such as special parking rights should be introduced.

How have you influenced, or are you attempting to influence their position?

By the constant membership in the Managing Board & Presiding Board of the association and by the regular participation in all relevant working groups. BMW Group is expressing its position in all activities, thus influencing the overall position on climate change of the VDA.

Trade association

European Automobile Manufacturers Association (ACEA)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association’s position

ACEA is an advocate for the automotive industry in Europe, representing manufacturers of passenger cars, vans, trucks and buses with production sites in the EU. ACEA aspires to define and advocate the common interests, policies and positions of the European automobile industry. One “industry topic” is “environment and sustainability”. In this industry topic issues are addressed ranging from air quality, noise reduction or CSR in the supply chain to CO2 emissions from cars and alternative drivetrains and e-mobility. The post 2020 CO2 regulation in the EU is of particular interest. The current legislation is solely focused on vehicle technology. ACEA advocates for a comprehensive approach taking into account the usage of the vehicles in the existing fleet in order to accelerate further CO2 emissions reduction. Since most CO2 emissions from the existing fleet come from older cars which do not have the latest technologies ACEA sees fleet renewal incentives as well as incentivizing lower carbon fuels through an upstream ETS (fuel providers) as two effective tools to lowering emissions from the existing fleet. By 2021, the car industry will have reduced CO2 emissions by almost 42 % compared to 2005. Any progress beyond 95 g/km CO2 relies heavily on growing electrification or hybridization levels. This may not be possible considering the lack of sufficient support at EU or national levels for electrification.

ACEA supports policy measures (e.g. CO2 based tax systems or charging infrastructure development) to achieve higher market shares of hybrid and electrically chargeable vehicles. In line with the EU climate package objectives, an overall effort from 2005 to 2030 is required at the level of -30 % for non-ETS sectors from the 2005 baseline. As the EU Commission raised the overall climate target for 2030 to -55 % compared to -40 % a review of relevant legislations contributing to the general climate goal will be executed in 2021. An increased contribution level by the non-ETS sectors is to be expected. ACEA argues that the target levels of a new proposal for 2030 CO2 fleet targets will only be achieved by a significant shift to e-mobility which at least depends on the customer acceptance level for e-mobility and the deployment of sufficient charging infrastructure across all member states.

How have you influenced, or are you attempting to influence their position?

By the constant membership in the ACEA Board of Directors and by the regular participation in relevant working groups. BMW Group is expressing its position in all activities, thus influencing the overall position on climate change of the ACEA.

Trade association

Auto Alliance

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Alliance For Automotive Innovation is the leading advocacy group for the automotive industry in North America and represents 77 % of all car and light truck sales in the United States. The Auto Alliance promotes constructive solutions to public policy challenges that promote sustainable mobility and benefit society in the areas of environment, energy and motor vehicle safety. "Auto Issues" of particular interest are (1) fuel economy and (2) electric readiness. (1) Fuel economy: The Alliance supports a comprehensive single, national program for fuel economy and greenhouse gas emissions, including consumer support of new, fuel efficient autos, which is critical to automakers meeting the program's demanding targets. (2) Electric readiness: The Alliance promotes efforts to support mass market commercialization of e-vehicles. Long-term efforts to reduce dependency on foreign oil while also reducing transportation sector greenhouse gas emissions will require the mass market commercialization of electric vehicles. That includes technologies such as hybrid electrics, plug-in hybrid electrics, battery electrics, and fuel cell vehicles. Widespread consumer acceptance of these technologies will require that efforts be focused on important considerations such as: supporting infrastructure, incentives for consumer adoption, the alignment of regulatory efforts and the removal of market barriers.

How have you influenced, or are you attempting to influence their position?

By the constant membership in the Board of Directors and in the Executive Committee of the association and by the participation in relevant working groups. BMW Group is expressing its position in all activities, thus influencing the overall position on climate change of the Auto Alliance.

C12.3d

(C12.3d) Do you publicly disclose a list of all research organizations that you fund?

No

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

(i) Methods:

BMW Group enters into dialogue about climate change, in direct dialogues, panel discussions and in initiatives on climate change related topics.

Examples in the field of e-mobility and mobility services are:

- 1) Engagement with academia, NGOs or governmental bodies on urban mobility in megacities.
- 2) We are a founding and board member of VELOZ, a Californian non-profit partnership founded to accelerate the shift to electric cars through public-private collaboration, public engagement and policy education innovation.
- 3) Engagement with city officials, academia and local stakeholders in collaborative projects for sustainable transformation of urban mobility addressing specific urban pain points, e.g. a strategic partnership in Berlin to shape the transformation towards sustainable mobility and liveable cities.

(ii) Topics:

The contents of our dialogue with political NGOs or scientific organizations as well as governmental bodies are (inter-)national legislation in the context of mitigation and adaptation, CO2-legislation and framework setting, renewables and e-mobility as well as other sustainability topics, new sustainable products, technologies and processes.

- 1) Engagement for urban mobility in megacities addressing challenges and potential solutions – e.g. e-mobility, car-sharing and other mobility services.
- 2) Veloz aims to power the electric car movement with an innovative public message about the fun, emotional and compelling benefits of driving electric.
- 3) The projects strive to accelerate the uptake of sustainable urban mobility systems and the collaborative development of new urban frameworks to enhance the liveability of growing cities.

(iii) Engagement nature:

Apart from dialogues and active participation in public debates, our innovations demonstrate to be viable measures against climate change on a short-to long-term: in conducted field trials with EVs as well as through our CO2 reduction and efficiency measures in our production sites worldwide. These measures are used in dialogues and stakeholder discussions as exemplary business solutions.

- 1) The BMW Group uses its own dialogue formats as well as participating constructively in public debates. For example, the Group has been represented at UN climate conferences for many years. BMW Group Dialogues are among the main formats for interacting with stakeholders and have been held regularly since 2011 in the BMW Group's key sales regions of North America, Europe and Asia. Above all, they provide an opportunity to sound out current and impending corporate strategic decisions compared with stakeholder expectations. Major topics covered in recent years have included e-mobility, the Group's energy strategy, corporate citizenship, urban mobility, and environmental and social standards in the supply chain. Pandemic-related, we organized a digital BMW Group Dialogue on supply chains in October 2020.
- 2) We helped to shape the organization's agenda, recruit new member organizations, provide BMW and MINI products for photo shoots and manage the direction that the organization and the digital campaign are taking.
- 3) a) Within the cooperation project "Neue Mobilität Berlin" alternative and integrated mobility supplies in citizen workshops have been elaborated. Residents leave their cars, test multimodal mobility without car ownership in order to break up routines in day-to-day mobility behaviour and unveil

barriers for transformation processes. b) Together with the City of Rotterdam, the Group develops solutions addressing challenges on sharing urban spaces among transport modes and the rise of e-mobility in cities. c) In a broad alliance, among others with the State Government of Bavaria, the BMW Group is about to initiate a strategic partnership to shape the transformation towards sustainable mobility and liveable cities. Main focus are the strategic changes in the framework conditions and to generate support and majorities in the political arena.

(iv) Actions advocated:

Actions advocated are diverse, including provision of all our activities on future mobility solutions, e-mobility and e-mobility infrastructure.

- 1) We advocate for the following measures to increase the market appeal of e-vehicles: a broad market penetration for e-vehicles in the business sector and support for the creation of a convenient charging infrastructure at home, in public and at the workplace. Further, specific lanes for e-vehicles and privileged parking.
- 2) To help California's vehicle electrification targets by 2030, the "Electric For All" campaign aims to educate and inspire drivers / riders to go electric advocating that e-vehicles are affordable for everyone.
- 3) An integrated mobility supply with car-sharing and adequate urban framework conditions like dedication of parking space for car-sharing and e-vehicles is crucial for behaviour change as it provides the adopters of e-mobility and sharing an advantage compared to owners of private cars.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

PROCESS TO ENSURE A COMMON APPROACH:

BMW Group's positions regarding global legislative issues arising from our engagement with policy makers at the market level is centrally coordinated in Munich. Positions are worked out with the participation of corresponding central departments, e.g. the department within the Strategy unit responsible for monitoring and further developing CO2 targets for each product line and each new vehicle project or the Strategy unit responsible for sustainability and environmental protection, and market representatives, respectively.

Moreover, proposals for the executive body concerning climate-relevant issues are aligned between the Vice President of Sustainability, Mobility being under the direct supervision of the Chairman of the Board of Management and the Vice President for Government and External Affairs before they are presented in the Strategy & Structure Circle, which prepares decisions to be made by the Board of Management. In this way all of our direct and indirect activities that influence policy are CONSISTENT with our overall climate change strategy.

The BMW Group actively engages in a proactive dialogue with policy makers on mitigation and adaptation as well as environmental legislative issues using a wide variety of communication channels. We discuss policy issues with various national and international trade organizations, NGOs, scientific institutions etc. Our Representative Offices in Berlin, Brussels, Beijing, London, Washington DC, Sacramento, Tokyo, Delhi, Singapore, Mexico, Seoul,

Sao Paulo, Moscow and Thailand are focal points of direct communication with political decision-makers and NGOs. In addition to major markets with a Representative Office, the BMW Group National Sales Companies are active in establishing political contacts and engage in political dialogue in the respective markets in 43 countries. The same applies to Regional Offices serving importer markets and to our manufacturing facilities. These structures and processes ensure that all engagement activities are in line with the BMW Group climate change strategy.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In mainstream reports

Status

Complete

Attach the document

 BMW-Group-Report-2020-EN.pdf

 BMW-Group-Report-2020-DE.pdf

Page/Section reference

Sustainability: p. 76ff, p. 95ff

Governance and strategy: p. 41ff

Strategy: p. 80-84, p. 62-68

Risks & Opportunities: p. 164ff

Supplier engagement: p. 101ff

Emissions figures: p. 8, 95-96, 163, 344ff

Emissions targets: p. 47ff, 101

Content elements

- Governance
- Strategy
- Risks & opportunities
- Emissions figures
- Emission targets
- Other metrics

Comment

Sustainability: p. 76ff (Carbon Emissions And Pollutants, fleet CO2 emissions), p. 95ff (Resource consumption and efficiency, renewable energy in production and the value chain)

Governance and strategy: p. 41ff (Sustainability Board, Supply Chain)

Strategy: p. 80-84 (electrification for emissions-free driving), p. 62-68 (R&D strategy electric vehicles)

Risks & Opportunities: p. 164ff (emission regulation, natural disasters)

Supplier engagement: p. 101ff

Emissions figures: p. 8, 95-96, 163, 344ff

Emissions targets: p. 47ff, 101

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

Additional information to C3.4:

Influence of climate-related risks and opportunities on our financial planning i) and the time horizon covered ii)

1) CASE STUDY for “Acquisitions”

i) Climate change (CC) is a driving force for transformation of the automotive industry. Electrification is a priority area in the BMW Group Strategy, which provides us with a strategic roadmap up to 2025. China is the world’s largest market for e-mobility. Following our successful strategy for expansion of the BMW Group’s global production network which is production follows the market we set up a new joint venture in China to ramp up the global success of its MINI brand. The aim of Spotlight Automotive Limited (Spotlight), a joint venture between the BMW Group and the Chinese manufacturer Great Wall Motors, is to produce all-electric MINIs for the BMW Group as well as electric vehicles for Great Wall Motors. The joint venture also includes the joint development of battery-powered electric vehicles. Spotlight was established on 27 December 2019, following approval from the Chinese authorities and the first stage of construction has already begun.

Expanding the charging infrastructure is a fundamental condition for the breakthrough of e-mobility. Positive political framework conditions can further support the process. Customers only switch to electric cars if they can rely on an adequate charging infrastructure for everyday driving and enjoy advantages in the form of privileges compared to vehicles with combustion engines. The BMW Group is a founding partner of the IONITY joint venture, the aim of which is to establish a comprehensive, high-performance, high-power charging (HPC) network for electric vehicles. The joint venture represents a vital step towards ensuring that e-mobility also becomes a viable means of transport over long distances, thus establishing it on the market. All IONITY charging points are publicly accessible, brand-independent and designed in accordance with the European Combined Charging System (CCS) standard.

ii) Time horizons covered by the financial planning:

- In founding the IONITY joint venture, the BMW Group, Daimler AG, Ford Motor Company and Volkswagen Group, including Audi and Porsche, are setting the course for creating the largest high-performance rapid charging network for electric vehicles in Europe. Construction and operation of around 400 rapid charging stations in total by 2021 are important steps to ensure e-mobility on longer distances, too, and establishing these in the market.

- The BMW Group and Great Wall Motor are driving e-mobility forward by building a joint plant (construction phase is planned for 2020 to 2022) in China, where the BMW Group will produce future fully-electric models of its MINI brand. The joint venture is also designed to further advance development and production of MINI electric vehicles until 2030 and beyond.

2) CASE STUDY for “Access to capital”

i) CC and scarcity of resources are big challenges our society is facing today. Shaping individual mobility and finding innovative solutions for products and services today for the needs of tomorrow is a key driving force for the BMW Group. Key is product efficiency and electrification. A major factor in the success of the BMW Group is its consistent focus on the future. We are one of the most profitable OEMs worldwide. Our long term thinking is recognized by capital market. Since many years we are among the leading companies in sustainability ratings (CDP, DJSI). Our sharp focus on the

future, combined with solid financials, enables us to have easier access to international capital markets. The BMW Group has a long-term credit rating of “A2” by Moody’s and A by “Standard & Poor’s – which is the best rating for an European OEM.

ii) Time horizons covered by the financial planning:

- We offer 3 BEV and 17 PHEV models in a total of 95 markets worldwide. In 2020, we sold 192,662 electrified vehicles worldwide (BEVs: 44,541; PHEVs: 148,121), a further increase in electrified volume by 31.8 % compared to 2019. And we led e.g. the global PHEV sales since 2017 – and not just the premium segment. Two more BEV models will be available from 2021 and by 2023, we will offer a total of 25 electrified models. We set ourselves ambitious targets: by 2025, the proportion of electrified vehicles in the total deliveries is to rise to at least 25 %. By 2030, we plan to have delivered at least seven million electrified vehicles.

- We continuously increase our resource efficiency and minimize CO2 emissions from our production. Since 2006, the BMW Group reduced its energy consumption per vehicle by 38 % and its water consumption by 31 %. CO2 emissions per vehicle produced were reduced by 78.1 % in comparison to 2006. In 2020 all of our Group locations worldwide purchased 100 % green electricity. Our target to further improve global mitigation: drastically reduce the carbon footprint in production by 80 % compared to 2019 per vehicle until 2030.

3) CASE STUDY for “Assets”

i) Technical and process related knowledge and intellectual properties, beside others in the field of future mobility solutions, has been created within a long tradition of innovation. Finding innovative solutions today for the needs of tomorrow is a key driving force for the BMW Group. R&D are therefore of key importance for us as a premium provider. R&D expenditure amounted to EUR 6,279 million in 2020 (2019: EUR 6,419 million), increasing our knowledge in all fields of mobility and low-/ zero-carbon technologies and thus impacting our intangible assets.

ii) Time horizons covered by the financial planning:

- The high flexibility of our global production network lays the foundation for our continued growth and is therefore considered as a long term influence. The company currently operates 31 facilities in 15 countries and continues to invest in them. We are preparing our sites for the diversity in powertrain systems to allow us to produce models with efficient combustion engines alongside electric vehicles and plug-in hybrids. Sustainability criteria are part of the criteria for choosing new sites. E.g. in the planning of our new plants in Brazil and Mexico, risks of flooding after hard rain are included and managed accordingly. Depending on the location we define from the beginning mitigation measures to ensure continuous operations. This shows how CC impacts our fixed assets.

- Our employees are a key asset and this is considered as a long term influence. Our most recent employee survey shows: 90 % of our associates say they are proud to work for the BMW Group, more than 80 % say they are familiar with our strategy. This shared understanding will give us even greater momentum. The BMW Group employed a workforce of 120,726 people at the end of 2020 (2019: 133,778). In conjunction with the implementation of the BMW Group Strategy, an increasing number of experts in future-oriented fields such as artificial intelligence and autonomous driving, e-mobility, smart production and logistics, data analysis and software development are hired.

4) CASE STUDY for “Liabilities”

i) Our financial liabilities serve mainly for refinancing our Financial Services segment. The BMW Group is a provider of financial services in the automotive sector. It offers these services in around 60 countries worldwide. The Financial Services segment's main business is credit financing and the leasing of BMW Group brand vehicles to retail customers. Customers can also purchase insurance and banking products. Under the brand name Alphabet, the BMW Group offers financing and management services for corporate car fleets in more than 20 countries. These services also include helping customers to manage their fleets on a sustainable and climate-friendly basis. Since our core business of developing, producing and selling vehicles and motorcycles is basically financed out of the operative cash flow of these two segments (automotive & motorcycle segment), our financial liabilities serve mainly for refinancing our Financial Services segment. Therefore, we actually see no significant impact from CC on BMW Group liabilities.

However specific BMW Group activities are eligible for investment loans designed to promote sustainable development, e.g. by the KfW Förderbank which finances investments in the areas of environmental and climate protection or by the European Investment Bank EIB providing finance and expertise for sustainable investment projects that contribute to EU policy objectives. A specific example is the paint shop in BMW Group's site in San Luis Potosí in Mexico financed by a KfW loan. Within R&D programs are financed by such loans to further develop Efficient Dynamics technologies as well as e-mobility.

ii) Time horizons covered by the financial planning: Since the KfW Förderbank and the EIB are eligible for investment loans among others, the time horizon is considered of long-term influence.

Additional information to C4.1b:

The BMW Group is firmly convinced that the fight against CC and the responsible use of resources will determine the future of our society – and thus also that of the BMW Group. In July 2020, we adopted our integrated sustainability strategy, with concrete science-based targets for the first stage up to 2030. Those targets are an inherent aspect of strategic management and include the upstream supply chain, the Group's own manufacturing operations as well as the customers' use phase. Currently we are preparing the reporting of our new SBTi targets for Scope 3 for the next CDP reporting cycle:

- a) SBTi Scope 3 upstream: BMW Group commits to reduce Scope 3 GHG emissions from purchased goods & services and upstream transportation & distribution services 22 % per vehicle sold by 2030 from a 2019 base year.
- b) SBTi Scope 3 downstream: BMW Group commits to reduce Scope 3 GHG emissions from use of sold products 40 % per vehicle kilometer by 2030 from a 2019 base year.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chairman of the Board of Management	Chief Executive Officer (CEO)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	98,990,000,000

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

Yes

SC0.2a

(SC0.2a) Please use the table below to share your ISIN.

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	DE	0005190003

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member

Accenture

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

4

Uncertainty (±%)

Major sources of emissions

Major source for Scope 1 & 2 emissions is the production of the BMW Group part of the fleet. The production of the other cars does not lie inside the operational control of BMW Group. In the reporting period of 2020 18 new leasing agreements for BMW Group vehicles started, resulting in total Scope 1 emissions as given.

Verified

Yes

Allocation method

Allocation based on the number of units purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Please see Investor CDP Climate answer.

Requesting member

Accenture

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

1

Uncertainty (±%)

Major sources of emissions

Major source for Scope 1 & 2 emissions is the production of the BMW Group part of the fleet. The production of the other cars does not lie inside the operational control of BMW Group. In the reporting period of 2020 18 new leasing agreements for BMW Group vehicles started, resulting in total Scope 2 emissions as given.

Verified

Yes

Allocation method

Allocation based on the number of units purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Please see Investor CDP Climate answer.

Requesting member

Accenture

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

208

Uncertainty (±%)

Major sources of emissions

Major sources for Scope 3 emissions are Use Phase emissions and emissions from Purchased Goods & Services. In 2020 these two categories made nearly 90% of Scope 3 emissions of the BMW Group. In the reporting period of 2020 18 new leasing agreements for BMW Group vehicles started. Use phase CO₂-emissions (only in this category we included use phase emissions from non-BMW Group cars): 78 tonnes over the next

three years (assumption: 15,000 km driven per year). Emissions from purchased goods and services: 130 tonnes CO₂e (only BMW Group vehicles).

Verified

Yes

Allocation method

Allocation based on the number of units purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Please see Investor CDP Climate answer.

Requesting member

Robert Bosch GmbH

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

90

Uncertainty (±%)

Major sources of emissions

Major source for Scope 1 & 2 emissions is the production of the BMW Group part of the fleet. The production of the other cars does not lie inside the operational control of BMW Group. In the reporting period of 2020 379 new leasing agreements for BMW Group vehicles started, resulting in total Scope 1 emissions as given.

Verified

Yes

Allocation method

Allocation based on the number of units purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Please see Investor CDP Climate answer.

Requesting member

Robert Bosch GmbH

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

12

Uncertainty (±%)

Major sources of emissions

Major source for Scope 1 & 2 emissions is the production of the BMW Group part of the fleet. The production of the other cars does not lie inside the operational control of BMW Group. In the reporting period of 2020 379 new leasing agreements for BMW Group vehicles started, resulting in total Scope 2 emissions as given.

Verified

Yes

Allocation method

Allocation based on the number of units purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Please see Investor CDP Climate answer.

Requesting member

Robert Bosch GmbH

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

5,159

Uncertainty (±%)

Major sources of emissions

Major sources for Scope 3 emissions are Use Phase emissions and emissions from Purchased Goods & Services. In 2020 these two categories made nearly 90% of Scope 3 emissions of the BMW Group. In the reporting period of 2020 379 new leasing agreements for BMW Group vehicles started. Use phase CO₂-emissions (only in this category we included use phase emissions from non-BMW Group cars): 2,430 tonnes over the next three years (assumption: 15,000 km driven per year). Emissions from purchased goods and services: 2,729 tonnes CO₂e (only BMW Group vehicles).

Verified

Yes

Allocation method

Allocation based on the number of units purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Please see Investor CDP Climate answer.

Requesting member

The Coca-Cola Company

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

73

Uncertainty (±%)

Major sources of emissions

Major source for Scope 1 & 2 emissions is the production of the BMW Group part of the fleet. The production of the other cars does not lie inside the operational control of BMW Group. In the reporting period of 2020 307 new leasing agreements for BMW Group vehicles started, resulting in total Scope 2 emissions as given.

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Please see Investor CDP Climate answer.

Requesting member

The Coca-Cola Company

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

10

Uncertainty (±%)

Major sources of emissions

Major source for Scope 1 & 2 emissions is the production of the BMW Group part of the fleet. The production of the other cars does not lie inside the operational control of BMW Group. In the reporting period of 2020 307 new leasing agreements for BMW Group vehicles started, resulting in total Scope 2 emissions as given.

Verified

Yes

Allocation method

Allocation based on the number of units purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Please see Investor CDP Climate answer.

Requesting member

The Coca-Cola Company

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

3,578

Uncertainty (±%)

Major sources of emissions

Major sources for Scope 3 emissions are Use Phase emissions and emissions from Purchased Goods & Services. In 2020 these two categories made nearly 90% of Scope 3 emissions of the BMW Group. In the reporting period of 2020 307 new leasing agreements for BMW Group vehicles started. Use phase CO₂-emissions (only in this category we included use phase emissions from non-BMW Group cars): 1,368 tonnes over the next three years (assumption: 15,000 km driven per year). Emissions from purchased goods and services: 2,210 tonnes CO₂e (only BMW Group vehicles).

Verified

Yes

Allocation method

Allocation based on the number of units purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Please see Investor CDP Climate answer.

Requesting member

KPMG UK

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

185

Uncertainty (±%)

Major sources of emissions

Major source for Scope 1 & 2 emissions is the production of the BMW Group part of the fleet. The production of the other cars does not lie inside the operational control of BMW Group. In the reporting period of 2020 774 new leasing agreements for BMW Group vehicles started, resulting in total Scope 1 emissions as given.

Verified

Yes

Allocation method

Allocation based on the number of units purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Please see Investor CDP Climate answer.

Requesting member

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

25

Uncertainty (±%)

Major sources of emissions

Major source for Scope 1 & 2 emissions is the production of the BMW Group part of the fleet. The production of the other cars does not lie inside the operational control of BMW Group. In the reporting period of 2020 774 new leasing agreements for BMW Group vehicles started, resulting in total Scope 2 emissions as given.

Verified

Yes

Allocation method

Allocation based on the number of units purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Please see Investor CDP Climate answer.

Requesting member

KPMG UK

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

9,267

Uncertainty (±%)

Major sources of emissions

Major sources for Scope 3 emissions are Use Phase emissions and emissions from Purchased Goods & Services. In 2020 these two categories made nearly 90% of Scope 3 emissions of the BMW Group. In the reporting period of 2020 774 new leasing agreements for BMW Group vehicles started. Use phase CO₂-emissions (only in this category we included use phase emissions from non-BMW Group cars): 3,694 tonnes over the next three years (assumption: 15,000 km driven per year). Emissions from purchased goods and services: 5,573 tonnes CO₂e (only BMW Group vehicles).

Verified

Yes

Allocation method

Allocation based on the number of units purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Please see Investor CDP Climate answer.

Requesting member

L'Oréal

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

52

Uncertainty (±%)

Major sources of emissions

Major source for Scope 1 & 2 emissions is the production of the BMW Group part of the fleet. The production of the other cars does not lie inside the operational control of BMW Group. In the reporting period of 2020 219 new leasing agreements for BMW Group vehicles started, resulting in total Scope 1 emissions as given.

Verified

Yes

Allocation method

Allocation based on the number of units purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Please see Investor CDP Climate answer.

Requesting member

L'Oréal

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

7

Uncertainty (±%)

Major sources of emissions

Major source for Scope 1 & 2 emissions is the production of the BMW Group part of the fleet. The production of the other cars does not lie inside the operational control of BMW Group. In the reporting period of 2020 219 new leasing agreements for BMW Group vehicles started, resulting in total Scope 2 emissions as given.

Verified

Yes

Allocation method

Allocation based on the number of units purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Please see Investor CDP Climate answer.

Requesting member

L'Oréal

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

2,553

Uncertainty (±%)

Major sources of emissions

Major sources for Scope 3 emissions are Use Phase emissions and emissions from Purchased Goods & Services. In 2020 these two categories made nearly 90% of Scope 3 emissions of the BMW Group. In the reporting period of 2020 219 new leasing agreements for BMW Group vehicles started. Use phase CO₂-emissions (only in this category we included use phase emissions from non-BMW Group cars): 976 tonnes



over the next three years (assumption: 15,000 km driven per year). Emissions from purchased goods and services: 1,577 tonnes CO₂e (only BMW Group vehicles).

Verified

Yes

Allocation method

Allocation based on the number of units purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Please see Investor CDP Climate answer.

Requesting member

Nokia Group

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

101

Uncertainty (±%)

Major sources of emissions

Major source for Scope 1 & 2 emissions is the production of the BMW Group part of the fleet. The production of the other cars does not lie inside the operational control of BMW Group. In the reporting period of 2020 421 new leasing agreements for BMW Group vehicles started, resulting in total Scope 1 emissions as given.

Verified

Yes

Allocation method

Allocation based on the number of units purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Please see Investor CDP Climate answer.

Requesting member

Nokia Group

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

14

Uncertainty (±%)

Major sources of emissions

Major source for Scope 1 & 2 emissions is the production of the BMW Group part of the fleet. The production of the other cars does not lie inside the operational control of BMW Group. In the reporting period of 2020 421 new leasing agreements for BMW Group vehicles started, resulting in total Scope 2 emissions as given.

Verified

Yes

Allocation method

Allocation based on the number of units purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Please see Investor CDP Climate answer.

Requesting member

Nokia Group

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

4,948

Uncertainty ($\pm\%$)

Major sources of emissions

Major sources for Scope 3 emissions are Use Phase emissions and emissions from Purchased Goods & Services. In 2020 these two categories made nearly 90% of Scope 3 emissions of the BMW Group. In the reporting period of 2020 421 new leasing agreements for BMW Group vehicles started. Use phase CO₂-emissions (only in this category we included use phase emissions from non-BMW Group cars): 1,917 tonnes over the next three years (assumption: 15,000 km driven per year). Emissions from purchased goods and services: 3,031 tonnes CO₂e (only BMW Group vehicles).

Verified

Yes

Allocation method

Allocation based on the number of units purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Please see Investor CDP Climate answer.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

Please see Investor CDP Climate answer.

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges

Please explain what would help you overcome these challenges

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP



	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain questions?
I am submitting my response	Investors Customers	Public	Yes, I will submit the Supply Chain questions now

Please confirm below

I have read and accept the applicable Terms