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RE:IMAGINE: New temporary exhibition at the BMW Museum to coincide with the IAA Mobility 2021 documents the BMW Group's path to sustainable mobility in the future.

+++ Focus on transition to electromobility and circular economy. +++ Exhibition on five levels of the BMW Museum shows activities and visions for increased sustainability. +++ Pioneering spirit and development expertise as driving factors behind progress. +++ Exhibition to open ahead of the IAA Mobility 2021 on 1 September 2021 and last until January 2023. +++

Munich. The BMW Group is currently undergoing the most far-reaching transformation process in its more than 100-year history, leading the company directly to the sustainable mobility of the future. A new temporary exhibition at the BMW Museum documents how the BMW Group is facing up to the challenges this involves, as well as demonstrating current activities and visions geared towards sustainable driving pleasure. Under the title "RE:IMAGINE – We're making BMW sustainable", all facets of this transformation will be highlighted, from purely electric drive systems, CO₂ reduction throughout the entire vehicle lifecycle, the idea of the circular economy and rigorous environmental standards in the supply chain through to social sustainability in the procurement of raw materials as well as in day-to-day working life at BMW Group sites all over the world.

"RE:IMAGINE" will open at the BMW Museum on 1 September 2021, providing a powerful impetus in the run-up to the IAA Mobility 2021 in Munich, which also focuses on sustainability as a future theme. On five levels and covering a surface area of some 1000 square metres, a diverse tour featuring some 30 individual stations has been installed that present the key highlights of the automotive industry's realignment. Entertaining, interactive and hands-on elements convey complex issues in way that visitors of all ages can understand. The new temporary exhibition will be on display at the BMW Museum until January 2023.

"RE:IMAGINE": A holistic view of the transformation process of the BMW Group. From the global framework conditions to milestones from the past and present to the latest innovations and visions for the future, the "RE:IMAGINE" exhibition provides a holistic overview of the central role sustainability plays for the BMW Group. Based on diverse social trends and the pressure to act caused by climate change, visitors to the BMW Museum learn in which fields of action - products and services, production and value



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creation, employees and society - the company, as a global pioneer in its industry, has made sustainability the basis of its activities.

Visitors can see and experience the wide variety of areas in which new thinking contributes to resource conservation, emission reduction and economic and social responsibility. Visitors receive insights into current research projects and learn about the BMW Group's various approaches to protecting the environment, habitats and human rights. At the relevant stations, information is provided, for example, on the use of regeneratively generated energy in vehicle production, transparent supply chains, efficient drive types for different needs, the establishment of a comprehensive circular economy and the recycling rates of current BMW and MINI models, which already far exceed the legal requirements. The exhibition also shows how digital services support efficient mobility and how new thinking in vehicle development with a conscious reduction of components and materials leads to sustainable design.

Sustainability: firmly anchored in the workforce and in the tradition of the BMW Group.

After "BMW i – Visionary Mobility", the BMW Museum once again devotes itself to a current as well as future-oriented theme in its new temporary exhibition. The title "RE:IMAGINE" expresses the capacity of the BMW Group and its employees to conceive and shape things in a completely new way. The pioneering spirit, commitment and innovative spirit of the company's employees has a key role to play in tackling the changes. In both the development and production of automobiles, as well as in many other areas of the company, the pursuit of sustainability is firmly anchored in the workforce. In order to reflect this, 35 personalities from various departments of the BMW Group are portrayed in the exhibition.

Added to this is a company tradition that is closely linked to innovative and efficient solutions as the key to success. Even in the very early days of the company, which was originally founded in 1916, BMW aircraft engines were not only highly reliable but also economical in terms of fuel consumption, too – the perfect basis for successful long-distance flights. BMW's first motor racing accomplishments as a car manufacturer were also largely based on the kind of facets that can be summarised today under the heading of sustainability. The BMW 328 dominated the action on the racetrack primarily due to its fuel-efficient in-line 6-cylinder engine and lightweight body. This was how it succeeded in winning the 1940 Mille Miglia endurance race – despite being up against numerous much stronger competitors. BMW has dedicated itself to electric mobility since the early 1970s.



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Electrically powered variants of the BMW 02 were used as escort vehicles for the marathon race at the 1972 Munich Olympics, for instance. They were the concrete expression of the vision of emission-free mobility and became a globally respected and still legendary symbol for a new form of driving pleasure. In the following year, the company appointed an environmental officer for the first time.

Via Efficient Dynamics to carbon-free premium mobility: the BMW i3 was just the beginning.

With its Efficient Dynamics technology package, the BMW Group created a concept back in 2007 that remains unique in the automotive industry to this day. The continuous reduction of fuel consumption – and therefore CO_2 emissions – has gone hand in hand with a consistent increase in driving pleasure. In addition to intelligent lightweight construction and optimisation of aerodynamic properties, one of the key elements is the broad portfolio of drive systems. Whether highly efficient petrol and diesel engines that can be supplemented with 48-volt mild hybrid technology, plug-in hybrid systems that allow a lot of day-to-day driving to be taken care of on a locally CO_2 -free basis, or purely electric motors – all are based on the principle of Efficient Dynamics. With this wide range, the BMW Group is a global supplier of premium automobiles that meets the diverse requirements of customers all over the world. Another option for emission-free premium mobility is hydrogen fuel cell propulsion: at the IAA Mobility 2021 the BMW Group presents the BMW iX5 Hydrogen, which is fitted with this technology and will be produced next year in a small series for testing and demonstration purposes.

With the launch of the BMW i brand and the development of the world's first premium automobile designed from scratch for purely electrically powered mobility, the BMW Group has also recently taken on a pioneering role in sustainable mobility. The BMW i3 (combined power consumption: 16.3 - 15.3 kWh/100 km according to WLTP, 13.1 kWh/100 km according to NEDC) has come to symbolise locally CO_2 -free driving pleasure in an urban environment. With the BMW iX3 (combined power consumption: 19.0 - 18.6 kWh/100 km according to WLTP, 17.8 - 17.5 kWh/100 km according to NEDC) and the MINI Cooper SE (combined power consumption: 17.6 - 15.2 kWh/100 km according to WLTP, 16.9 - 14.9 kWh/100 km according to NEDC) as well as the BMW iX and BMW i4 models to be available soon, the BMW Group brands offer purely electrically powered cars in numerous vehicle categories. In the coming years, these will be followed by fully electric model variants of the BMW 5 Series and BMW 7 Series, the BMW X1 and the successor to



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the current MINI Countryman. By 2023, the BMW Group's product range will include 13 fully electrically powered models, covering 90 per cent of all vehicle segments.

CO₂ emissions: the entire vehicle lifecycle in view.

In the past, the BMW Group has always addressed the right issues at the right time, not least when it comes to effectively tackling climate change. The main goal here is to achieve carbon neutrality. In 2020 the BMW Group developed its own agenda that is even more ambitious than the 2015 Paris Climate Agreement target of limiting global warming to below two degrees Celsius. This is why the company is well prepared to meet the requirements of the EU's "Fit for 55" programme, which requires $\rm CO_2$ emissions of new car fleets to be reduced by 55 per cent from 2030. In the long term, the BMW Group has set itself the goal of establishing a climate-neutral business model across the entire value chain by 2050.

Today, every vehicle is measured by its carbon footprint. Based on continuously increased efficiency and consistent electrification, the BMW Group succeeded in reducing the CO_2 emissions of its brands' vehicle fleets by 53 per cent between 1995 and 2020. But increasing sustainability is not just about the drive. The entire lifecycle has to be taken into account – from the procurement of raw materials and production through to the use phase and subsequent recycling.

Optimisation of manufacturing processes has enabled the BMW Group to reduce the energy requirement per vehicle in production by more than a third as compared to 2006. In addition, vehicle production at all BMW Group sites worldwide is carbon-neutral as of this year. All BMW Group plants have been making exclusive use of green power since 2020. Four wind turbines have been generating green electricity at the BMW Group plant in Leipzig since 2013, while the BMW Group plants in Munich and Dingolfing draw their electricity from regional hydroelectric power plants. At the Chinese site of the BMW Brilliance Automotive joint venture, at the British MINI plant in Oxford and at the BMW Group's newest plant in San Luis Potosí, Mexico, large-scale solar installations contribute to generating the electric power required for production. Energy generated from methane gas obtained from a local landfill is used at the US BMW Group plant in Spartanburg. In terms of the figures, the company's administrative offices and other properties do not emit more carbon dioxide than they absorb.



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The BMW Group has set itself the goal of avoiding the emission of more than 200 million tonnes of CO_2 through consistent optimisation in production, in the supply chain and in the use phase of the vehicles. Emission reductions in the supply chain include initiatives to produce aluminium using solar power, CO_2 -free steel production and the use of renewable energy in the manufacture of high-voltage batteries for electric vehicles. For example, the BMW Group plant in Landshut recently started using aluminium produced by means of solar energy in the desert of the Emirate of Dubai. This means that in future 43 000 tonnes of aluminium – around half of the annual foundry requirement at the BMW Group's largest component plant – will be produced on a climate–neutral basis. What is more, only green electricity is used for the production of the battery cells for the fifth–generation BMW eDrive technology.

The goal: ten million purely electrically powered vehicles in the next ten years.

The BMW Group placed electromobility at the centre of its developments at an early stage in order to achieve a consistent reduction in CO_2 . Launched in 2013, the BMW i3 is the result of a holistic concept for sustainability that goes far beyond purely electric power. This compact e-vehicle with its pioneering design and passenger cell made of carbon fibre-reinforced plastic (CFRP) also took on a pioneering role in the field of intelligent lightweight construction. By the end of 2020, more than 200000 units of the BMW i3 had been sold worldwide.

At the same time, the BMW Group has expanded its range of plug-in hybrid models in recent years to include almost all relevant vehicle classes – from the compact segment, the mid-range and the BMW X models through to the luxury performance segment. The combination of an efficient combustion engine with an electric motor makes it possible to take care of most day-to-day driving with zero local emissions. The BMW Group provides incentives for electrically powered driving based on innovative digital services such as the BMW eDrive Zones and the globally unique BMW Points reward programme.

In Germany, almost one in four new cars of the BMW brand and around 30 per cent of all newly registered MINI vehicles are now fitted with an electrified drive. Worldwide, the BMW Group plans to put a total of one million fully electric and plug-in hybrid vehicles on the road by the end of 2021. The share of all-electric vehicles in the BMW Group's total sales is to be increased to more than 25 per cent by 2025, reaching 50 per cent by 2030. In total, the BMW Group aims to put around ten million fully electrically powered vehicles on the road around the world in the course of the next ten years.



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New vehicle platforms are being designed that enable the use of fully electric drive systems as well as plug-in hybrid and hydrogen fuel cell technology. Furthermore, the BMW New Class models to be launched from 2025 onwards will set entirely new standards in the areas of circularity and digitalisation as well as sustainable drive technology.

With its model range tailored to maximum driving pleasure in urban traffic, the British brand MINI is predestined for electric mobility. MINI took on the role of pioneer in the field of electric mobility in the BMW Group back in 2008. With the MINI E produced in a small series, field testing generated crucial findings on the use of a purely electrically powered automobiles in day-to-day traffic. With the MINI Cooper SE, the brand has now made an extremely successful start to its all-electric future. By the beginning of the 2030s, the MINI model range will exclusively comprise purely electrically powered vehicles.

The BMW Motorrad range also includes models for locally emission-free mobility in urban environments. The latest example of sustainable driving pleasure on two wheels is the allelectric BMW CE 04 scooter. With a range of up to 130 kilometres, it is suitable for both day-to-day commuting and lengthier trips. Just like the BMW CE 04, all new BMW Motorrad models designed specifically for urban mobility will be powered by electricity only in the future.

In addition, the BMW Group is committed to expanding the charging infrastructure. With the public charging services BMW Charging and MINI Charging, customers have convenient and transparent access to one of the largest charging networks in existence, comprising more than 200000 charging points in Europe. In Germany alone, the network offers more than 40000 charging points. In addition, the IONITY High Power Charging service can be used via BMW Charging, enabling particularly fast charging at capacities of up to 350 kW and with a total of 2000 charging points throughout Europe. In cooperation with E.ON, the BMW Group is operating a network of 5000 charging points in Germany up until the end of 2021 that supply 100 per cent green power.

The BMW Group as a pioneer in the development of the circular economy.

When it comes to sustainability, the BMW Group thinks far beyond emissions. With its "RE:THINK, RE:DUCE, RE:USE, RE:CYCLE" approach, the company provides a holistic outlook on how the use of primary raw materials for the automobile of the future can be drastically reduced. The company is striving to achieve a circular economy that involves as



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many raw materials as possible being recycled. In view of the scarcity of resources and increasing raw material prices, the BMW Group believes that this step will be crucial to maintain sustainable business operations as well as being a clear efficiency imperative.

The share of secondary materials – such as recycled steel, plastic and aluminium – will see a marked increase the New Class models from 2025 onwards. Under the motto "Secondary First", later recycling is already being taken into account in the development of new models. Preference is given to the use of secondary materials wherever the quality and availability of the materials allow.

A key challenge involved in today's recycling processes is the extraction of materials in a very pure form. For this purpose, wiring systems have to be easy to remove prior to recycling, for instance, so as to avoid mixing the steel with copper from the vehicle's wiring harness. The reduction in the number of components, material groups and surface finishing contributes significantly to increasing recycling rates. The use of mono-materials for the interior, such as in the seats, is one example of the principle of circularity. The aim is to return the greatest possible amount of material to the resource cycle.

In the development of electric motors and high-voltage batteries for the fifth-generation BMW eDrive technology, close consideration was given to recycling in addition to resource conservation. The design principle of the electric motors makes it possible to do without materials from the rare earth metal sector. This makes the BMW Group independent of the availability of these critical raw materials. The high-voltage batteries in current BMW and MINI models with electrified drive systems can serve as stationary storage facilities for a long period of time after being used in a vehicle and before their materials can finally be reprocessed for renewed use. The high-voltage batteries of the fifth generation of BMW eDrive technology are particularly suitable for circular re-use of raw materials. In this case, the choice of materials and design allow a recycling rate of up to 90 per cent. The housing of the high-voltage battery in the BMW iX consists of some 30 per cent secondary aluminium, while in the battery cell the proportion of secondary material is as high as 50 per cent for nickel – an important raw material. In addition, further development of battery cell technology has reduced the proportion of cobalt in the cathode material to less than ten per cent.

Remarkable progress towards a circular economy has been made in other areas, too. At the BMW Group plants in Germany and Austria, for example, a closed material cycle has



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been established for toolmaking. Carbide tools are predominantly made of tungsten; at the BMW Group plant in Steyr, they are used for the high-precision machining of e-drive housings. As of recently, drilling and milling inserts are now collected after use instead of being disposed of. The rare metal tungsten contained in them can be processed into secondary tungsten in powder form by means of a special method and then used for the manufacture of new tools.

Binding environmental and social standards for the entire supply chain.

The mobility turnaround is one of the most radical economic upheavals ever to have taken place in the automotive industry. It concerns not only the vehicle manufacturers themselves but also their suppliers and partners. The BMW Group has set itself the goal of establishing the most sustainable supply chain in the industry.

Sustainability goals are defined for a new model during the early stages of its development. This also includes the so-called upstream chain of production. In the area of purchasing, the focus is on compliance with environmental and social standards as well as respect for human rights, protection of natural resources and reduction of CO_2 emissions. For this purpose, measures to optimise sustainability such as the use of recycled materials and renewable energy have been defined in dialogue with the suppliers. Compliance with these standards is verified on site by independent assessors. Even after a contract has been awarded, audits are carried out on an ongoing basis.

The BMW Group ensures compliance with environmental and social standards in the production of battery cells for the fifth-generation BMW eDrive technology by means of controlled raw material extraction and transparent supply chains. For example, the company buys the quantities of cobalt needed for the high-voltage batteries itself before making the material available to the battery cell suppliers. The lithium required for battery cell production is also mined under transparent conditions monitored by the BMW Group. The BMW Group obtains the lithium used in the high-voltage batteries from so-called hard-rock deposits in Australia and supplies it to the battery cell manufacturers. In this way, the company ensures that environmental and sustainability standards and human rights are observed in the extraction and processing of cobalt and lithium.

Even though the battery cells for the fifth generation of BMW eDrive technology do not use cobalt from the Democratic Republic of Congo, the BMW Group is involved in a pilot project there to ensure that the extraction of this raw material is both ecologically and socially



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sustainable. Together with its supply chain partners, the company has commissioned the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) to develop measures to improve the working and living conditions of the miners in the micro-mining sector as well as those of residents in the surrounding communities. In addition, the BMW Group has commissioned two renowned American universities to carry out a study on sustainable lithium mining in Latin America. The aim is to investigate the impact of lithium mining on local water supply in Latin America.

Another commitment to comprehensive sustainability on the part of the BMW Group is its participation in an initiative to protect the deep sea. Here the company supports the work being done by the World Wide Fund for Nature (WWF) Germany. In a joint declaration, the BMW Group and companies from other industries commit to not using minerals from the deep sea or financing deep-sea mining as a precautionary measure until the consequences of deep-sea mining have undergone comprehensive scientific investigation and adequate protection for the deep sea can be guaranteed.

Social responsibility: shaping the transformation together.

The BMW Group assumes social responsibility in a variety of different ways both inside and outside the company. Its social commitment is reflected in long-term partnerships with institutions in the areas of sport and culture, for example. Both up-and-coming and top-level athletes are supported in a variety of disciplines. With more than 100 initiatives in modern and contemporary art, classical music, jazz, sound, architecture and design over the last 50 years, the BMW Group's commitment to culture is firmly established internationally.

As a corporate citizen, the BMW Group aims to efficiently address and tackle the pressing environmental and social challenges of our time. Through an international network of competent partners, the company promotes sound education for children and young people as well as an inclusive and diverse society. BMW Group employees contribute to this through their own personal projects, too. The BMW Foundation inspires leaders around the world to embrace their social responsibility as set out in the UN Agenda 2030 and work as responsible leaders for a peaceful, just and sustainable future.

As part of the transformation to consistently sustainable mobility, the BMW Group is shaping change in close cooperation with its employees. More than 50000 employees have already undergone specialised training in the field of e-mobility. In 2021, the BMW



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Group will launch the biggest training offensive in the company's history, organising courses on future-oriented subjects for some 75 000 participants. In this way, employees will be excellently qualified to work in novel areas such as e-mobility and digitalisation. These new qualifications are in great demand. At the BMW Group plant in Dingolfing alone, the competence centre for e-drive production will be expanded from the current 1 200 employees to as many as 2 000.

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The BMW Group

With its four brands BMW, MINI, Rolls-Royce and BMW Motorrad, the BMW Group is the world's leading premium manufacturer of automobiles and motorcycles and also provides premium financial and mobility services. The BMW Group production network comprises 31 production and assembly facilities in 15 countries; the company has a global sales network in more than 140 countries.

In 2020, the BMW Group sold over 2.3 million passenger vehicles and more than 169,000 motorcycles worldwide. The profit before tax in the financial year 2020 was \in 5,222 billion on revenues amounting to \in 98,990 billion. As of 31 December 2020, the BMW Group had a workforce of 120,726 employees.

The success of the BMW Group has always been based on long-term thinking and responsible action. The company set the course for the future at an early stage and consistently places sustainability and resource conservation at the centre of its orientation, from the supply chain to production to the end of the use phase of all products.

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