

Background and trends of the European e-bike market

E-bikes are becoming more and more common in our everyday lives. This may be during a Sunday recreational trip, for the daily commute, or as a vehicle for food delivery from restaurants. Among other reasons, increased awareness for health and sustainability has led to an extraordinary growth in the e-bike market. Additionally, this trend was reinforced by the COVID-19 pandemic and the associated need for individual mobility and activity in the fresh air. In this sector briefing, you can find out how widespread e-bikes currently are in Europe and which criteria are driving purchases.

The presented results are based on an online survey conducted in spring 2021. The survey is representative in terms of age and gender distribution. 11,250 individuals from 20 European countries, aged at least 16 took part. In this sector briefing, particular attention is paid to the e-bike market in the DACH region (Germany, Austria and Switzerland). The leading bicycle nations Belgium and the Netherlands serve as comparative markets.

Germany, Austria and Switzerland just behind the leaders

A look at the market penetration of e-bikes in the individual countries of Europe illustrates significant differences between countries. However, it also proves that the adoption of electrified bicycles is already fairly advanced. In this context, the DACH countries are already at the forefront of this trend. Based on the conducted consumer survey, 17 percent of respondents in Germany stated that they own an e-bike. Neighbouring Austria (18%) and Switzerland (21%) are at a similar level. Compared with the UK (8%), for

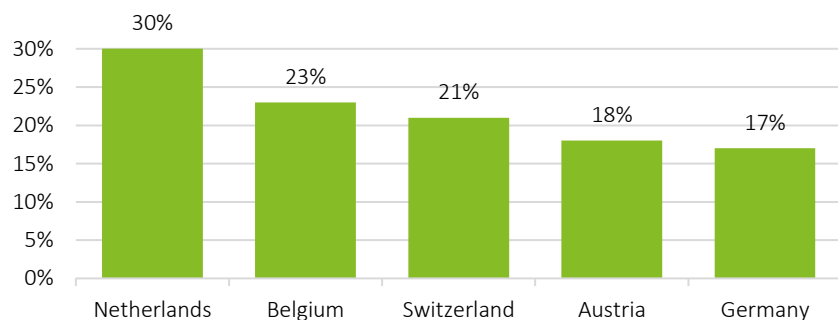
example, this already represents high advancement, but the rate is significantly lower than in the Netherlands (30%), which is the clear European leader.

The DACH countries also still lag slightly behind the Netherlands and Belgium in terms of the current sales shares of e-bikes in a country's total bicycle market. According to the bicycle associations of the respective countries, the share of e-bikes in total sales in 2020 was 39 percent in Germany, 34 percent in Switzerland and 41 percent in Austria. In the Netherlands, this was already 50 percent, and in Belgium, e-bikes already accounted for more than half of the bicycles sold in 2019.

Before the pandemic, market experts were expecting e-bikes to account for 50 percent of bicycles sold in Germany by the middle of the current decade. As a result of the pandemic-related acceleration in demand, this figure is already within reach. The challenge for the industry is to be able to continue to meet the increased demand despite its complex supply chains.

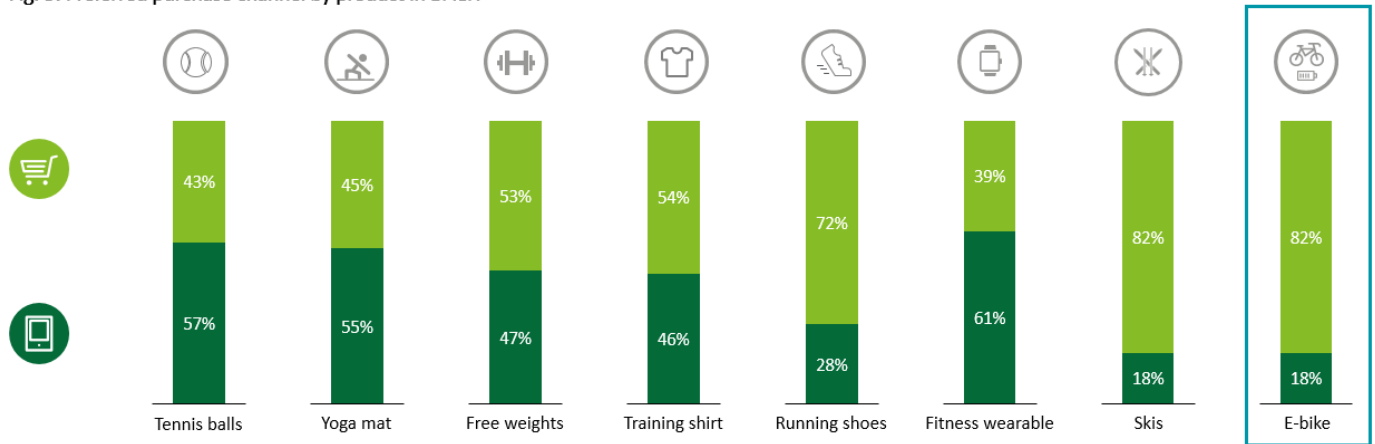
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Fig. 1: E-bike penetration in selected countries^{1, 2}



Notes: 1) Question wording: "Do you own or lease an e-bike?"; 2) n = 500 - 750 per country. Source: Deloitte analysis

Fig. 5: Preferred purchase channel by product in DACH^{1, 2}



Notes: 1) Question wording: „Imagine, you would buy one of the following sports products. Which channel would you prefer? “; 2) n = 1,750. Source: Deloitte analysis

Need for expert advice takes consumers to the stores

According to the German Bicycle Industry Association¹, the annual share of bicycles purchased online (e-bikes and conventional bicycles) grew from 15 percent in 2016 to 28 percent in 2020, mainly driven by conventional bicycles, according to market experts. The conducted consumer survey shows that brick-and-mortar retail continues to be the preferred sales channel in the growing e-bike market. In a hypothetical purchase scenario, 72 percent of respondents in Germany said they preferred the brick-and-mortar sales channel for an e-bike. In Austria (89%) and Switzerland (91%), the proportion is even higher. Looking at the aggregated DACH market, it can be seen that apart from e-bikes (82%), only skis (82%) and running shoes (72%) show a similar preference for the brick-and-mortar purchase channel. This is certainly due to

the price, the relatively high complexity of the product, and the anticipated future service component.

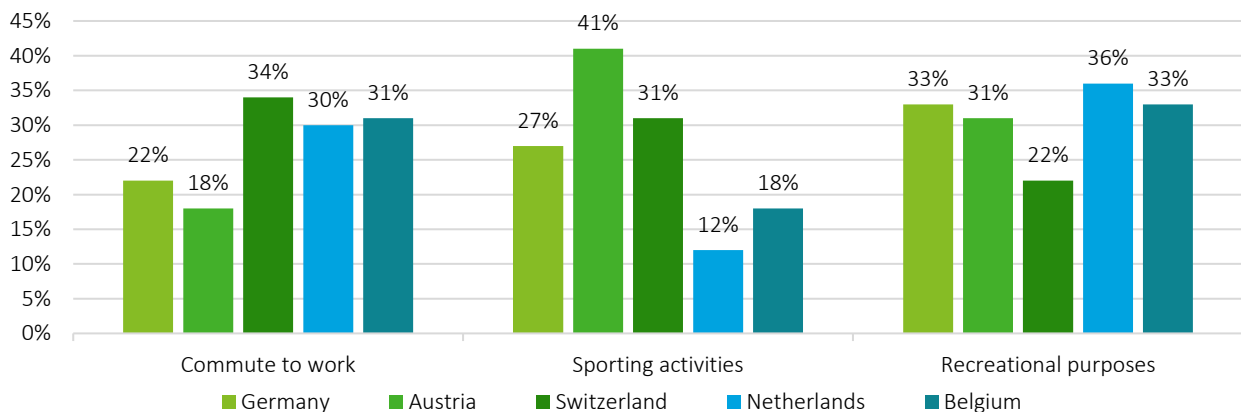
It is true that consumers had to switch to online retail during the temporary store closures. But the high preference for the brick-and-mortar channel underlines the demand for local expert advice on e-bikes. By contrast, a significantly higher proportion of consumers in other sports segments (e.g. workout apparel and sports and fitness accessories) prefer to buy via the online channel.

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Motivational drivers to buy an e-bike vary from country to country

Another difference between the countries results from the primary reasons for purchasing e-bikes. While comparatively few respondents stated that they had purchased the e-bike for daily errands such as shopping at the supermarket, at the European level a similar number of respondents stated that they had purchased the e-bike primarily for commuting to work, for sporting activities and for recreational purposes such as weekend excursions. The latter reason for purchase dominates with 33 percent of respondents in Germany. In Austria, by comparison, e-bikes are more frequently purchased primarily for sporting purposes (41%), while in Switzerland (34%), similar to the Netherlands and Belgium, a high number of respondents stated that they had purchased the e-bike primarily for their daily commute to work.

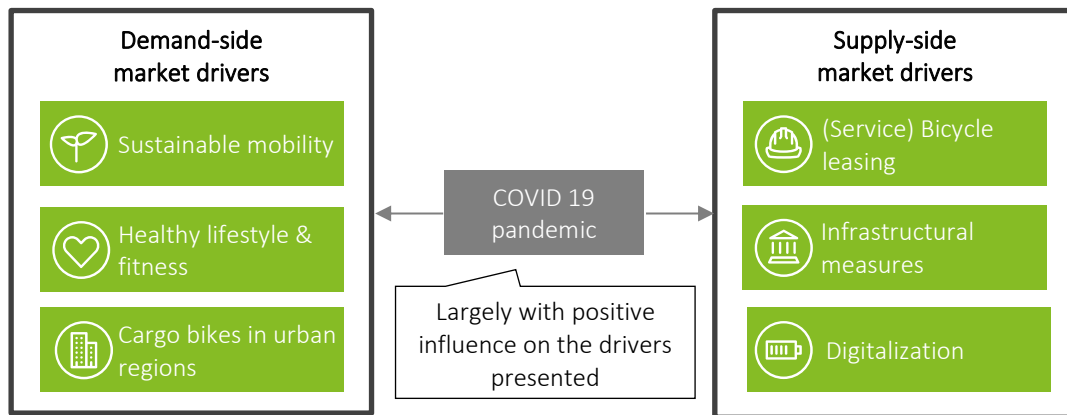
Fig. 3: Primary e-bike purchase drivers in selected countries^{1, 2}



Notes: 1) Question wording: "What was the main reason for purchasing an e-bike?"; 2) n = 88 - 148 per country.

Source: Deloitte analysis

Fig. 4: Selected trends and drivers of the e-bike market



Source: Deloitte analysis

Six selected drivers for the e-bike market

The e-bike boom is not just a short-term trend. A sustainable development in the direction of electrified bicycles can be seen, driven by various trends and influences accelerated by the pandemic. For example, e-bike leasing through employers provides many employees with discounted access to mostly high-quality e-bikes. According to our consumer survey, leased bikes accounted for around 5% of e-bikes in circulation in Germany in February/March 2021. Again, Switzerland (5%) and Austria (3%) are at a similar level. In contrast, the rate in the UK and Ireland was even above 10 percent, although the penetration rate of e-bikes in both countries is still comparatively low.

Technical developments and infrastructural measures are also expanding the range of applications and, in consequence, the target group. Thus, the e-bike is also gaining access to people who previously would not have purchased a bicycle, for example, for health or other reasons. Furthermore, on the demand side, the e-bike market is benefiting from the growing awareness of sustainable mobility and a healthy lifestyle. Particularly in urban regions, people and companies are turning away from traditional motor vehicles and using e-bikes and cargo bikes in everyday life.

Due to the high demand and long-term supply chain, the shortage of parts and raw materials needed for production represents a counterweight to these positive drivers. Already towards the end of 2020, partly due to the pandemic, the industry drew attention to possible undersupply. The current availability of bicycles - both conventional and e-bikes - clearly demonstrates these restrictions. A medium-term recovery of the supply chain will be necessary to serve the projected demand.

The conditions are set for growth

Both the survey results and the trends and drivers are reflected in the historical and forecasted development of the market. According to the European umbrella organization, Cycling Industries Europeⁱⁱ, the number of e-bikes sold in the EU and the UK increased by an average of around 29 percent per year between 2016 and 2019. In comparison, the volume of conventional bikes sold declined by an average of around 3 percent in the same period.

Despite slightly subdued e-bike growth in 2019 (23%) and an already high absolute volume, growth of 25% was achieved again in 2020ⁱⁱⁱ, in particular as a consequence of demand-driven developments combined with the COVID-19 pandemic (e.g., need for alternatives to public transport, urge to exercise in fresh air at a distance). According to the German Bicycle Industry Association, the number of e-bikes sold in Germany rose from 1.4 million to 2.0 million (+43%) in 2020, following an already high level of 39% in the previous year.

The European umbrella association also forecasts an increase of more than 20 percent in Europe (EU and UK) in 2021. It is assumed that thereafter the growth of e-bikes will decline slightly, which corresponds to the natural cycle of initial market saturation. In the second half of the current decade, the European umbrella association expects more e-

bikes than conventional bikes to be sold in the EU and the UK for the first time.

Supply chain recovery crucial for further development

Now it is up to manufacturers and retailers to meet the demand. The results of the consumer survey have shown that the DACH market has the potential for further market penetration through a comparison to leading Netherlands and Belgium. In this context, the different primary reasons for purchase must be taken into account, which can especially be addressed by still dominating brick-and-mortar retailers of e-bikes. In the medium term, a recovery of the supply chain is crucial to achieve the expected growth. The further course of the pandemic will also have an impact on the aforementioned trends and drivers and thus on the demand and supply of e-bikes. However, provided that sufficient production can be ensured, nothing stands in the way of a further steep growth of e-bikes.

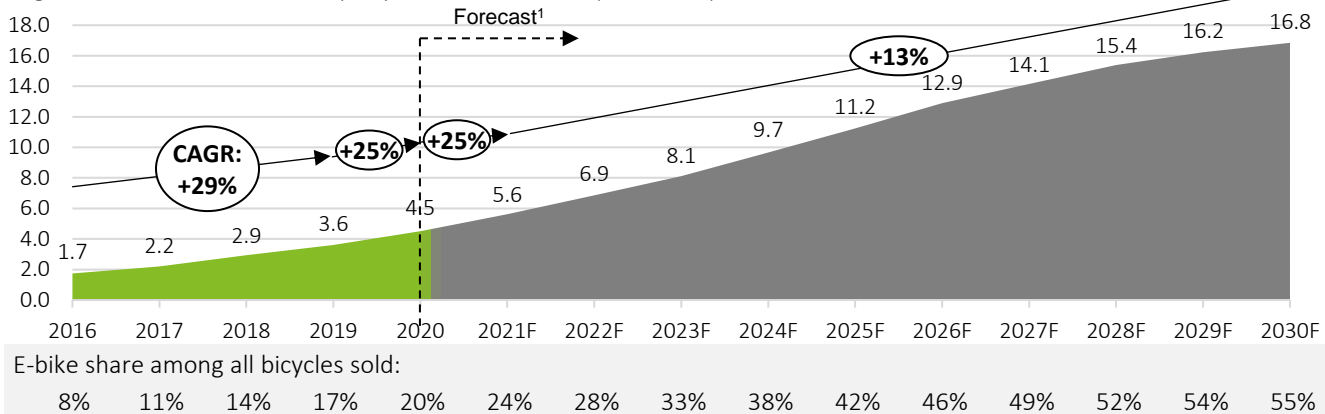
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Fig. 5: Number of e-bikes sold per year in the EU + UK (in millions)



Notes: 1) Forecast as of December 2020 (based on expected value for 2020 of 4.7 million e-bikes sold).
 Source: Cycling Industries Europe, Local Bicycle Associations, Deloitte analysis

ⁱ Source: Zweirad-Industrie-Verband: "Zahlen - Daten - Fakten zum deutschen Fahrrad- und E-Bike Markt 2020," at: https://www.ziv-zweirad.de/fileadmin/redakteure/Downloads/Marktdaten/PM_2021_10.03._Fahrrad-_und_E-Bike_Markt_2020.pdf (accessed 29/07/2021).

ⁱⁱ Source: Cycling Industries Europe, "Bike sales forecast to grow up to 30 million per year by 2030 following post-COVID investments in cycling," at: <https://cyclingindustries.com/news/details/new-european-cycling-industry-forecast-shows-huge-growth-in-bike-and-e-bike-sales> (accessed 29/07/2021).

ⁱⁱⁱ Source: Confederation of the European Bicycle Industry: "European Bicycle Industry Booming," at: <https://www.conebi.eu/index.php/2021/07/12/european-bicycle-industry-booming/> (accessed 29/07/2021).

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