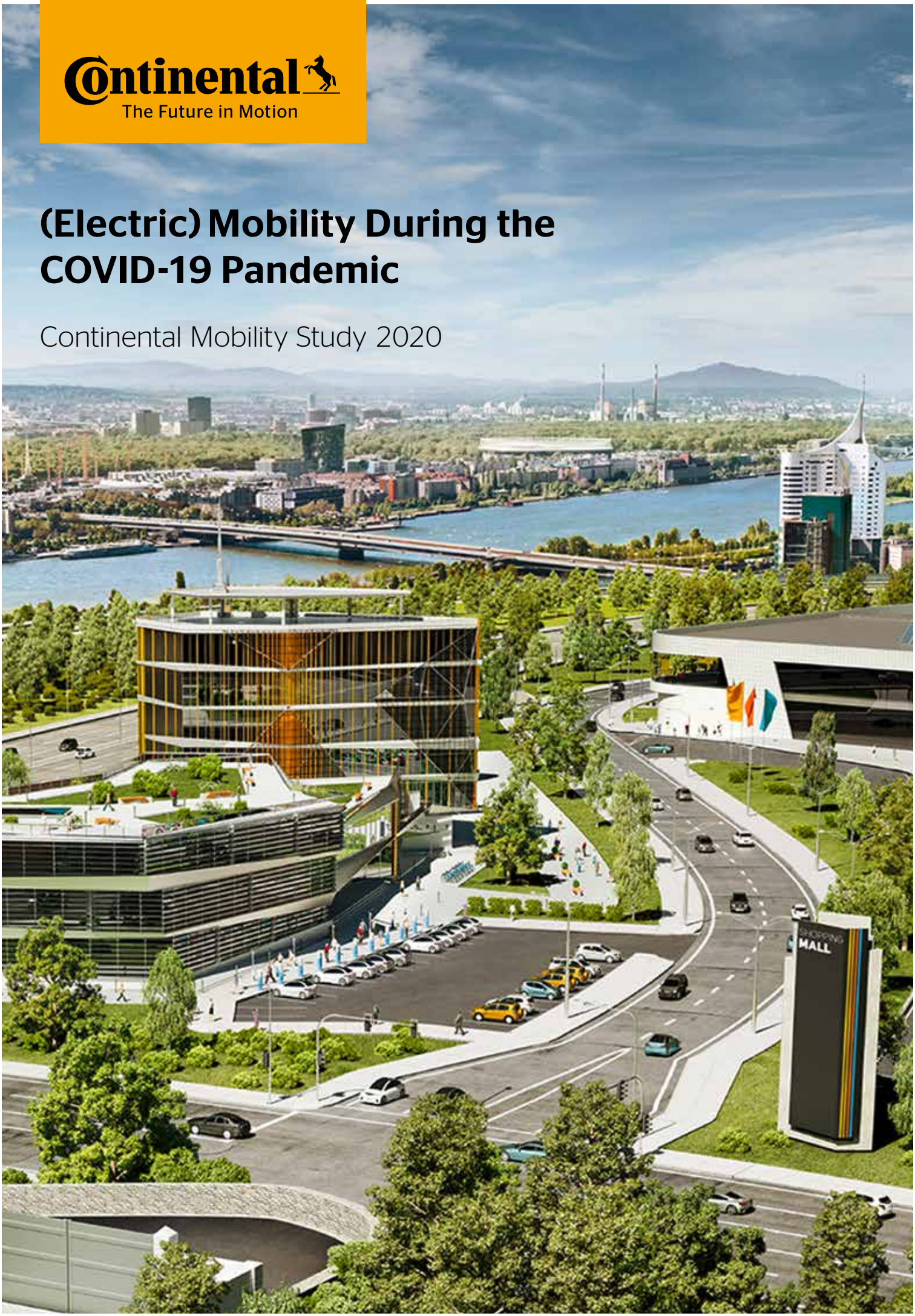
Continental
The Future in Motion

(Electric) Mobility During the COVID-19 Pandemic

Continental Mobility Study 2020



Context

Since 2011, the technology company Continental has carried out the Continental Mobility Study on various key topics at regular intervals. The Continental Mobility Study 2020 is the sixth edition of the study, which asks people in Germany, France, the US, China and Japan about various aspects of mobility. One of the focus areas of the current study is electric mobility.

The 2020 survey took place in two stages with different emphases. In the first stage in September 2020, a representative sample of the population was surveyed in five countries on three continents: Germany, France, the US, Japan and China.

In addition to the expectations and attitudes regarding electric vehicles, the survey also dealt with changes in mobility against the backdrop of the global COVID-19 pandemic. Measures to stop the spread of the virus temporarily reduced mobility to a great extent in all of the surveyed countries as part of strict lockdowns imposed on their populations. At the same time, the behavior of many people changed, even after the measures were relaxed and mobility could largely return to normal. The findings of the survey reveal specific changes in behavior, attitudes and expectations.

In the following, the key results of the first wave of the Continental Mobility Study 2020 are summarized.

Electric mobility was already a key focus of the Mobility Study in 2011. In 2013, the study also covered attitudes toward this topic. Almost a decade on, the time has come once again to focus on the topic of alternative drive systems – especially battery-powered vehicles. There are several reasons for this.

On the one hand, the spread of electrically powered vehicles lags significantly behind the expectations expressed in recent years.

On the other, the topic of ecological sustainability has definitively found acceptance in the social and political mainstream. For many companies, it has gone from being an optional luxury to a central pillar of their business model.

This raises the question of how people in leading industrialized countries on three continents view the topic of electric mobility today.

Key results of the Continental Mobility Study 2020 Stage 1

1: Private transportation is the “winner of the crisis”

Private transportation has gained considerable importance during the COVID-19 pandemic.

It will emerge from the crisis much stronger: in order to minimize contact with others, many people are choosing to travel by bicycle or by car, while the use of public transportation has declined significantly.

Although many people have been significantly less mobile during the crisis than before, a major portion of them report that they in fact use their cars more. This trend is particularly pronounced in China, where almost half of the respondents say they travel more by car. In Germany, a quarter of those surveyed said the same. Even in France, where freedom of movement and thus mobility has been restricted particularly severely, 16 percent of the population have been using cars more frequently than before the pandemic began.

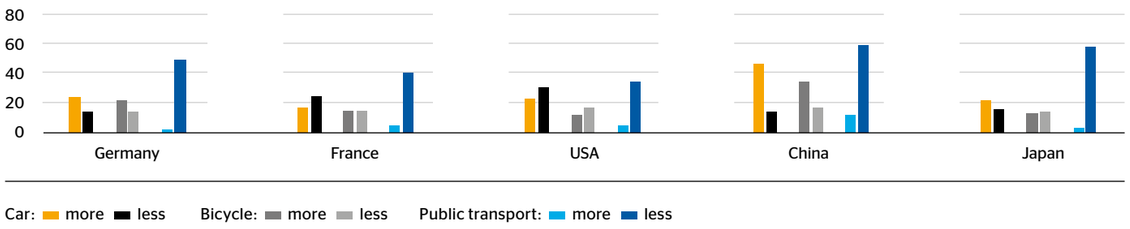
Bicycles have also gained in importance within a similar timeframe.

It is a different story for public transportation, meanwhile, with half of the people in Germany saying they use public transit less often than before, and more than half in China and Japan.

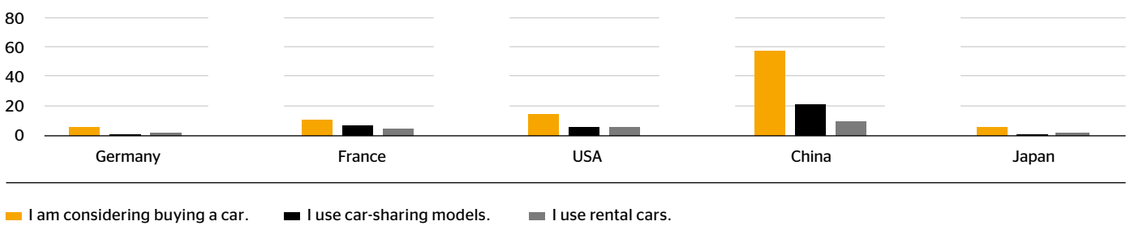
The question is whether this trend will continue after the crisis. Some of the survey’s results seem to indicate this: between six percent of respondents in Germany and 15 percent in the US reported that they have bought a car or are considering buying one in the medium to long term.

In China, where the proportion of car owners is still significantly lower, as many as 58 percent of respondents reported the same.

Mobility behavior according to means of transportation



How has the pandemic changed the medium-term attitude toward mobility?



2: New mobility concepts are shaping the debate about the future of mobility – but not most people’s everyday reality

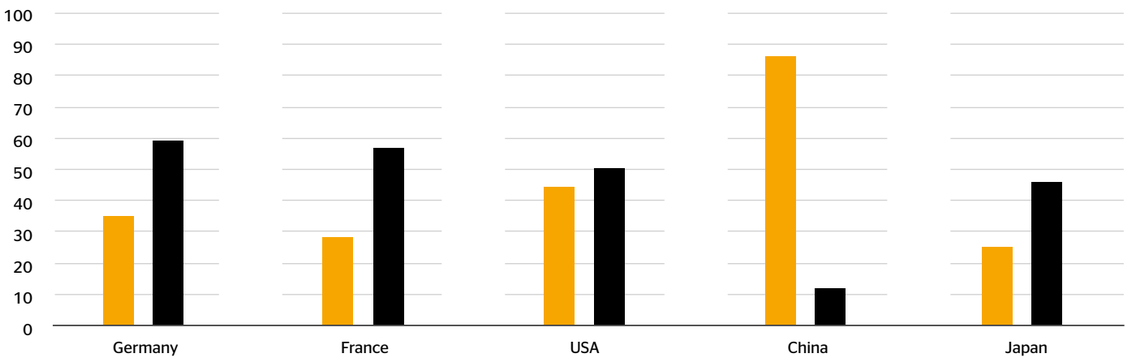
Car-sharing concepts, which have become increasingly important in recent years, especially in urban areas, are being used extensively in some countries – partly as a result of the pandemic. The need to switch to private cars is particularly pronounced in China, with 21 percent of those surveyed using such on-demand solutions due to the pandemic. In France and the US, significant portions of the population (7 and 6 percent respectively) still rely on these services.
It is also noticeable that people in Germany and France tend to stay with traditional mobility concepts: the use of car-sharing services plays almost no role in both countries, still lagging behind the more traditional rental car.

Private transportation is firmly anchored in most people’s everyday lives and will probably remain so for a long time to come, especially in rural areas where households are currently more likely to have their own car.

New mobility concepts are shaping the debate about the future of mobility – but not the reality of most people’s everyday lives. Well over 80 percent of those surveyed own the car they regularly drive and 14 to 20 percent use the car of a family member or a friend. New car-sharing concepts such as ride pooling or ride hailing have not played a relevant role so far. The share of respondents using such services is rising slightly in large cities only, especially in the US. But even here, there is no evidence of a mainstream phenomenon.

In addition, around 10 percent of people in China say that they use these services regularly – although more people there are considering buying a car than in any other country, meaning car-sharing models could become even less significant.

Can you imagine driving a fully electric car in the future?*



** Rest: Don’t know*

3: Electric mobility will play an important role in the future – but the road to the mass market is still a long way off

Electric mobility is regarded as a key concept for making private transportation more sustainable in the future. However, sales volumes of electrically powered vehicles – in Germany as well as in nearly all other parts of the world – are well below expectations and the scale required to achieve targets for reducing greenhouse gas emissions.

Around a third of those surveyed in Germany said they could imagine buying an electric car in the future, compared with just 17 percent in 2013.

But despite the growing willingness in Germany to consider buying an electric vehicle, the fact remains that the majority of people cannot imagine doing so. What's more, the percentage of respondents who cannot see themselves buying an electric car in the future is higher in Germany than anywhere else (57 percent).

In France (56 percent) and the US (50 percent), at least half of the population cannot imagine themselves in an electric car, and the percentage in Japan is only slightly lower (46 percent). China is a clear exception here: only 12 percent of those surveyed in the mobility study cannot imagine buying an electrically powered car.

Overall, the most important factor that speaks against electric cars for most people is range anxiety.

The three most frequently cited arguments against electric driving in Germany are the lack of charging stations (interestingly, more so in cities than in rural areas), the low range, and the need for pre-planning and longer breaks if long distances have to be covered. The high price is only the fourth most important factor in Germany by some margin.

Lack of charging stations is the most cited argument against electric driving in four of the five countries studied. Only in France is the price the most discouraging factor. Misgivings are also relatively evenly distributed from an international perspective: the four main arguments of electrosceptics are the same in all five countries.

In all the countries studied, policymakers are attempting to steer buyers toward alternative drive systems by means of monetary and non-monetary incentives. All five countries offer purchase premiums for electric vehicles, for example. In Germany, these have been increased as part of the stimulus package to alleviate the impact of the coronavirus on the economy; in China, the premiums that were set to expire have been extended. In Japan, policymakers are also targeting manufacturers and paying innovation premiums for increases in range. Charging infrastructure is also being expanded in all the countries studied.

Lawmakers are thus addressing many aspects that are deterring consumers. In addition to concrete developments in this area, however, the level of awareness and information available to the general public also needs to be increased.

Range anxiety is one of the key arguments against buying an electric car in all countries – but most people can now already easily meet their daily mobility needs with an electric vehicle, since the distances that need to be covered are usually short and charging stations are becoming increasingly available at home or at work and in public spaces – places where a car is often parked for a longer period of time.

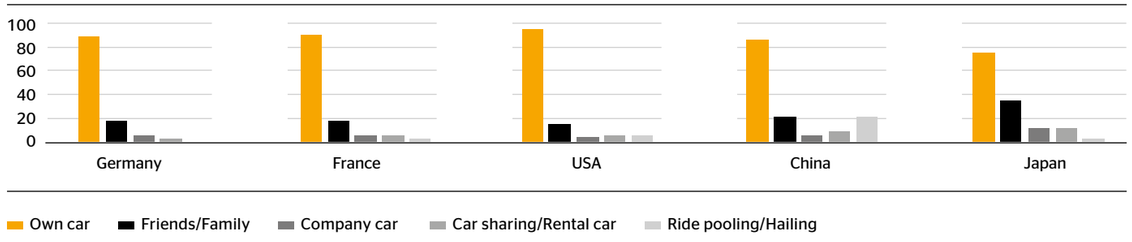
There are, however, other obstacles that cannot be overcome by technological developments alone. In Germany, a third of the respondents said that they would not consider an electric car since they doubt that the technology is environmentally friendly. In France, a quarter said the same thing. The situation is entirely different in the other three countries included in the study, where the percentage of those who doubt the ecological credentials of electric cars is much lower, ranging from 11 percent in the US to just 1 percent in Japan.

In Germany in particular, attempts are being made to increase the prevalence of electric vehicles by means of monetary incentives, most recently by significantly increasing purchase premiums as part of the economic stimulus package to overcome the coronavirus crisis.

The survey data shows, however, that the misgivings are more of a structural nature and are unlikely to be overcome with a premium in the long term.

Can you imagine driving a fully electric car in the future?

New mobility concepts



Electric mobility – reasons against

Germany	France	USA	China	Japan
Not enough charging stations	Price	Not enough charging stations	Not enough charging stations	Not enough charging stations
61	55	57	63	60
Limited range	Not enough charging stations	Limited range	Limited range	Pre-planning/Breaks for long distances
57	49	44	59	40
Pre-planning/Breaks for long distances	Pre-planning/Breaks for long distances	Pre-planning/Breaks for long distances	Pre-planning/Breaks for long distances	Price
57	48	44	44	39
Price	Limited range	Price	Price	Limited range
46	28	41	19	14

4: China could provide a boost for electric mobility

On several levels, the development of electric mobility is a chicken-and-egg problem.

In terms of infrastructure, for example, the question arises as to whether this should be expanded – although it is not needed to this extent at present – in order to convince people of the technology, or whether it should be adapted as the number of vehicle registrations increases.

As for the range of models available, manufacturers have long stated that they have not expanded their product range because of insufficient demand, while buyers have reported that the choice of models is too small.

While many manufacturers have recently expanded their product range significantly, a sustainable push for electric mobility could come from China. This is because:

> As an "automotive growth market," China has been a central sales market for automotive manufacturers from all over the world for years.

> The results of the Mobility Study 2020 show that in no other country has the importance of private transportation increased more significantly than in China, with 46 percent of those surveyed saying they use their cars more often than before. In Germany, this figure is half as high at 23 percent.

> The mobility adjustment in China is likely to continue, with almost 60 percent of respondents saying they have bought a car or are considering buying one.

> In China, 86 percent of respondents can imagine buying an electric car – more than in any other country.

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