



2020/21

Competition figures



Dear Reader,

For over a year and a half now, the coronavirus pandemic has been significantly impacting the European transport markets.

In 2020, all modes of transport took losses in Germany, albeit to varying extents. Passenger transport was hit particularly hard. Compared with 2019, total transport volume plunged by 17%. Public passenger transport experienced considerably steeper losses than did private transport.

In 2021, passengers are once again commuting and travelling more; demand is rising, thanks in part to the progress being made in combatting the pandemic. We anticipate that rail passenger transport volume in Germany will attain pre-pandemic

levels by 2023. Rail freight transport will be quicker to resume growth. Transport volume in this segment could reach pre-pandemic levels as soon as 2021.

The prevailing conditions for the transport industry are as demanding as ever. Both Germany's and the EU's ambitious climate targets are adding even more pressure. Photographs of the devastating floods experienced in parts of Germany serve as a grim reminder. Now more than ever, the railway is critical to ensuring sustainable growth.

Railways are up to the challenge and are leading the charge to shift transport to the rails – despite the heavy economic burden imposed by the coronavirus. The industry is investing in growth and climate protection.

At DB, we're ramping up to go completely climate-neutral by 2040 – ten years sooner than originally planned.

**Yours sincerely,**  
Ronald Pofalla



**06 Passenger transport**

- 06 German market
- 12 Long distance rail in Germany
- 16 Regional and local rail in Germany
- 20 European railways

**24 Freight transport**

- 24 German market
- 28 Rail freight transport in Germany
- 32 European railways

**36 Infrastructure**

- 36 Use of the rail network in Germany

**40 Environment**

- 40 Rail's contribution to protecting the environment

**44 Transport performance data since 2016 at a glance**

- 44 Passenger transport
- 45 Freight transport
- 45 Infrastructure

# Total market

in Germany in 2020/2021

**The coronavirus pandemic has had grave consequences for mobility demand in the German passenger transport market. Public transport volume in particular declined sharply 2020.**

**Transport volume plunged in 2020:**

Restrictions on contact and travel designed to contain the pandemic contributed to a 17.1% drop in transport volume to 912 billion passenger kilometres in 2020 (2019: 1,100 billion passenger kilometres). All market segments and modes of transport were affected by the decline. Significant recovery is not expected until the latter half of 2021. Transport volume is anticipated to grow by 7% for all of 2021.

**Decline sharpest in air transport:** As early as 2019, domestic air transport volume in Germany slid by 1.5% to 10.1 billion

passenger kilometres. In the midst of the coronavirus pandemic in 2020, transport volume in this segment plummeted by 73.9% to 2.6 billion passenger kilometres. Market share fell to 0.3% (2019: 0.9%). Recovery in this segment will be rather weak in 2021 because supply has been scaled back considerably.

**Market share for rail declined in 2020, with growth anticipated for 2021:** While in 2019, rail passenger transport achieved the highest growth rate of all modes of transport and its market share swelled to 9.3%, the segment's transport volume





**Transport volume in Germany**  
(in billion passenger kilometres)

	2019 <sup>1</sup>	2020 <sup>1</sup>
Private motorised transport	917.0	807.0
Rail	102.0	57.5
Public road transport	71.3	45.4
Air travel (domestic in Germany)	10.1	2.6
Total	1,100.4	912.4

<sup>1</sup> Provisional, partly estimated, figures rounded  
Sources: Destatis, DB

fell by 43.7% to an estimated 57 billion passenger kilometres in 2020 (2019: 102 billion passenger kilometres). Market share dropped to 6.3%. In 2021, the segment's transport volume is forecast to grow by 1.5%. Passenger rail service is not expected to attain pre-pandemic levels until 2023.

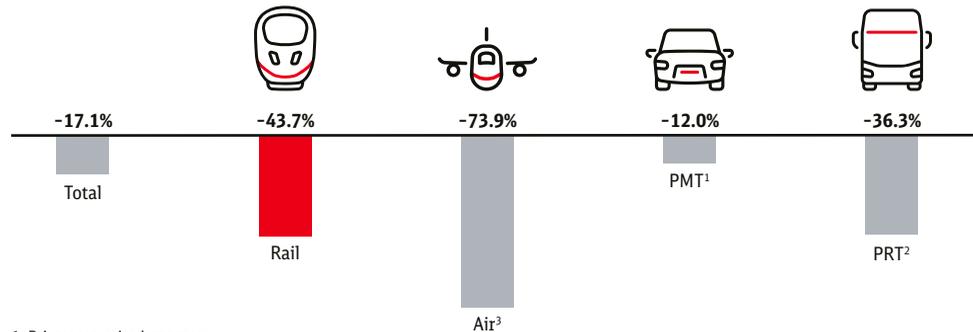
**Market share also declined in public road transport:** Public road transport volume also fell by some 36% in 2020, which resulted in market share losses. The segment's market share was 6.5% in 2019 and dropped to 5% in 2020. Transport volume stood at some 45 billion passenger kilo-

metres in 2020 (2019: roughly 71 billion passenger kilometres).

**Heavy losses in scheduled long distance bus services:** Part of the decline in public transport was attributable to long distance bus services. In 2020, transport volume for these services plunged 71% to 1.7 billion passenger kilometres. After discontinuing services temporarily, some providers have now begun offering a limited range of services. A new market participant is offering luxury bus services with Roadjet. At the end of 2020, DB Long Distance discontinued its IC Bus long distance bus services because

## Passenger transport

Market performance in 2020 compared with previous year  
(measured in transport volume)



- 1 Private motorised transport
- 2 Public road transport
- 3 Air travel (domestic in Germany)

Sources: Destatis, DB

of the progress which has been made in upgrading rail transport. IC Bus service had supplemented rail service in places which did not offer attractive train links.

### Private motorised transport benefits from social distancing requirements:

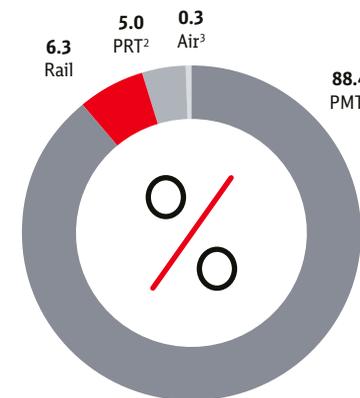
During the coronavirus pandemic, private motorised transport increased its market share to the detriment of public transport. Low fuel prices contributed to this growth. While private motorised transport volume declined by 12% to 807 billion passenger

kilometres, the drop was considerably less steep than in public transport. In the passenger transport market, which shrank overall, private motorised transport increased its market share to 88.4% in 2020 (2019: 83.3%). In 2021, private motorised transport is anticipated to grow by 7% and thus achieve pre-pandemic levels.



## Passenger transport

2020 modal split<sup>4</sup>  
(measured in transport volume)



- 1 Private motorised transport
- 2 Public road transport
- 3 Air transport (domestic in Germany)
- 4 Figures rounded

Sources: Destatis, DB

# Long distance rail

in Germany in 2020/2021

## Heavy losses in long distance market:

In 2020, transport volume in long distance rail passenger transport fell by almost half (47%) to 23.7 billion passenger kilometres. At 81.5 million, passenger numbers were 46.2% below the previous year's figure. Rising demand during the summer stalled out when travel restrictions were imposed amid Germany's second wave of the coronavirus. In 2021, long distance rail passenger transport is likely to benefit from passengers choosing rail over either air transport or long distance bus services in addition to an expansion of rail services.

## After solid start, demand for DB services plummets:

During the first two months of 2020, DB Long Distance served a total of 23.9 million passengers, an increase of 9.0% over the same period in the previous year. Expanded services and Germany's VAT decrease on long distance tickets, which took effect at the beginning of the year, were drivers for growth. As the coronavirus

pandemic set in, passenger numbers and transport volume took a nosedive. In total, some 81 million passengers used DB's long distance trains in 2020 (2019: roughly 150.7 million). The segment's transport volume dropped by 46.7% to 23.5 billion passenger kilometres (2019: 44.2 billion passenger kilometres).

**2021 brings gradual recovery:** Throughout the pandemic, DB Long Distance has run a stable base-level timetable in order to ensure mobility, allow for social distancing and retain customers over the long term by providing reliable services. Since mid-June of 2021, all coronavirus-related capacity restrictions have been lifted. In the first half of 2021, DB Long Distance served 27.2 million passengers. Its transport volume amounted to some 7.7 billion passenger kilometres. Since April 2021, the company has experienced rapidly increasing demand.





**More links, more seats:** When the timetable change took effect in December 2020, more rail links and seating capacity were added. For instance, a half-hour interval connection between Hamburg and Berlin was introduced, and ten new ICE direct service links were added between Bonn and Berlin. In partnership with the Austrian and Swiss federal railways (ÖBB and SBB, respectively), Eurocity Express service was introduced on a newly electrified route linking Munich and Zürich. A total of 13,000 additional seats were made available at the end of 2020.

**Action plan to improve integration between rail journeys and flights:** In tandem with air transport, DB aims to create the conditions to convince 4.3 million German domestic air travellers to instead choose rail transport in the medium term. In this way, Germany's domestic air transport segment could reduce its carbon emissions by roughly one-sixth. ICE Sprinter connections are slated for expansion to serve as an alternative to short-haul flights and as a transfer service for international flights. As soon as the timetable change comes into effect in December 2021, new

ICE Sprinters will begin plying the Munich-Cologne and Munich-Frankfurt Airport routes. This will more tightly integrate airports with the railway.

**A new beginning and expansion:** After suspending rail service for several months due to the pandemic, FlixTrain gradually began resuming service on the Cologne-Hamburg, Berlin-Cologne-Aachen and Stuttgart-Berlin routes in May 2021. FlixTrain has added routes – Kiel-Hamburg-Berlin-Leipzig, Munich-Frankfurt and a Hamburg-Berlin-Munich overnight route – to service

additional cities. The company's network now includes approximately 40 cities.

**Reduction in track access charges boosts growth:** In an effort to ease the financial consequences of the pandemic for commercially operated long distance rail passenger transport companies, the German federal government is supporting the rail market by reducing track access charges, a change which the EU Commission approved in July 2021. The change applies retroactively from 1 March 2020 to 31 May 2022 and will see the German government covering up to 98% of these charges.

# Regional and local rail

in Germany in 2020/2021

## Rail companies and passenger transport authorities ensure mobility despite sharp decline in passenger numbers:

Regional and local rail passenger transport suffered a major impact in 2020 due to the pandemic-related restrictions on public life. Demand for commuter and leisure transport services plummeted. In 2020, 39% fewer passengers used regional and local rail transport than in 2019.

## Federal and state-level coronavirus-related aid:

To offset the lack of revenues generated by bus and rail services, the German federal and state governments launched a joint rescue scheme in 2020 and agreed to fund it with EUR 5 billion. The industry has estimated its losses for 2020 at some EUR 3.3 billion, and it expects farebox revenues to fall short by EUR 3.6 billion in 2021. To compensate for the pandemic-related losses and to ensure the future viability of public trans-

port, an additional EUR 2 billion is slated to be added to the fund in 2021. Germany's federal government and its states plan to each contribute half of this amount.

## High level of competitive pressure in market:

Based on the number of rail services ordered, DB Regio's competitors increased their market share once more in 2020, from 36% (2019) to an estimated 39%. The competitive situation is increasingly influenced by new roles and responsibilities in the market. These include the creation of vehicle pools at passenger transport authorities, and vehicle manufacturers taking on the provision of maintenance services. Over the past few years, rail companies' value chains have been increasingly broken apart as parts of the business are commissioned separately, such as sales. Low margins across the board and ballooning costs mean companies are facing mounting pressure.



**DB Regio invests in strong rail:** As part of DB's Strong Rail corporate strategy, DB Regio is pushing the envelope when it comes to customer focus and innovation. As the company digitalises and automates its operations and maintenance activities, the quality of its services continues to improve. Cross-modal mobility solutions are aimed at rounding out its range of services in an intelligent way. DB Regio is gradually expanding and modernising its fleet in consultation with passenger transport authorities. By reducing its energy consumption and using alternative drive systems, the company also plans to become greener. Regio's target is still to increase the number of passengers using regional and local transport by 1 billion (compared with 2015).

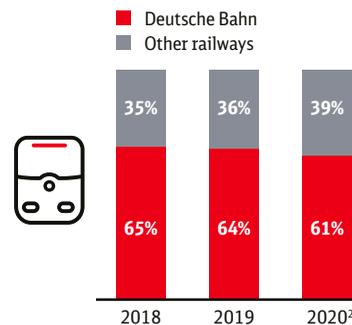
**Railways continue driving mobility decarbonisation:** In light of climate protection targets, which became even more ambitious in 2021, regional and local public transport providers are called upon to quickly pick up where the upsurge in demand left off before the coronavirus pandemic and significantly increase their market share going forward. In 2021, passenger

rail service will benefit from advances in vaccines, the resulting loosening of restrictions and the return of trust in public transport. A study commissioned by the German states and conducted by Berliner Charité and the Association of German Transport Undertakings (VDV) has shown that the regular use of public transport is not associated with a higher risk of infection compared to private transport.

**Growth trends remain unchanged:** Over the coming years, rural and urban mobility will increase significantly. Growth in rail transport will be driven by measures to protect the climate, an increase in metropolitan traffic and a rise in commuter traffic as residents move to the suburbs. Integrated mobility solutions, digital products and services and automated processes have huge potential to boost the capacity and appeal of passenger rail transport. In order to actually reach the goal of doubling passenger numbers by 2030, the German states, the passenger transport authorities and the VDV are calling for a significant increase in funding for regional and local transport services.



Market shares in regional transport<sup>1</sup>  
(measured in train services ordered)



<sup>1</sup> Figures rounded; <sup>2</sup> Estimated  
Sources: Federal Network Agency, DB

# European railways

Rail passenger transport in 2020/2021

## Massive decline in mobility in 2020:

In the European Union, transport volume in the passenger rail service segment fell by 47% in 2020 (2019: +3.4%). In some countries, passenger numbers plummeted by more than 90% at times. International transport was hit particularly hard.

## Sharp declines in transport volume at RENFE, PKP and DB:

The Spanish company RENFE experienced a precipitous 58.9% drop in transport volume in 2020. At Poland's PKP, the number of passenger kilometres plunged by 47.2%; at DB, the drop amounted to 44.7%.

## Pandemic continues to hamper railways in 2021:

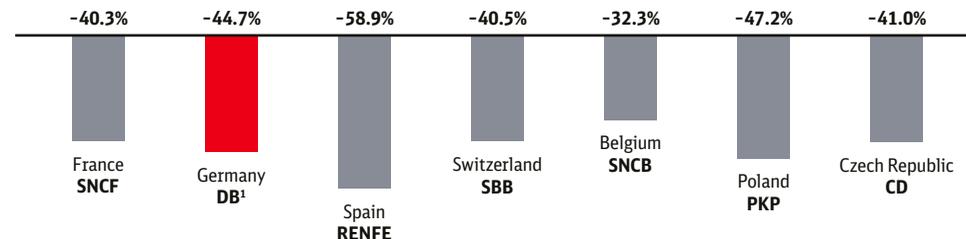
The Community of European Railway and Infrastructure Companies (CER) estimates that, compared with 2019, the

railways in the EU 27 lost 41% of their passenger rail service income in 2020, and as much as 51% in the first quarter of 2021. To provide a soft landing in the face of pandemic-related losses, the EU is allowing its member states to temporarily reduce track access charges to as little as zero and to compensate infrastructure managers for lost income. Several countries, including Germany and Italy, are already using the tool since it has been approved by the EU commission. Sweden is also planning to subsidise a portion of track access charges in order to ease the pain inflicted by the pandemic.

## European recovery scheme to the rescue:

The NextGenerationEU recovery plan is providing member states with EUR 750 billion to contend with the finan-

Performance in passenger rail service in Europe (2020)  
(measured by transport volume; change year on year)



1 DB excluding Arriva

Sources: UIC, DB

cial fallout from the coronavirus pandemic. Investments will focus on climate protection and digitalisation. European railways expect to benefit from the investments, which will enable them to advance modernisation and digitalisation efforts and contribute to both the green and digital transformations.

### **Railways leverage market openings:**

Several railways had planned to enter the French and Spanish markets in 2020, but declined to do so due to the pandemic. In mid-2021, several players entered the markets, thus heightening competition and expanding service offerings. For instance, SNCF Ouigo and RENFE's Avlo represent the launch of low-cost, high-speed transport services by two companies on the Madrid-Barcelona route. Trenitalia's Thello service is slated to ramp up by the end of 2021 on the Lyon-Marseille route.

### **European climate policy depends**

**on railway:** The railways' initiatives to grow their market share are aligned with Europe's climate targets. With the Green Deal, the EU intends to become climate neutral by 2050. The EU Commission outlined how the transport industry can achieve this goal in its Sustainable and Smart Mobility Strategy published in 2020. Rail transport generates less than 0.5% of transport-related greenhouse gas emissions in the EU, so the idea is to grow the industry. The aim is to double the number of high-speed rail services by 2030 and triple it by 2050.



# Total market

in Germany in 2020/2021

The coronavirus pandemic shrank the economy, and with it, the demand for transport services. As transport volume declined overall, road traffic's market share grew. Inland waterway transport and rail lost market share.

### Pandemic puts the brakes on economy:

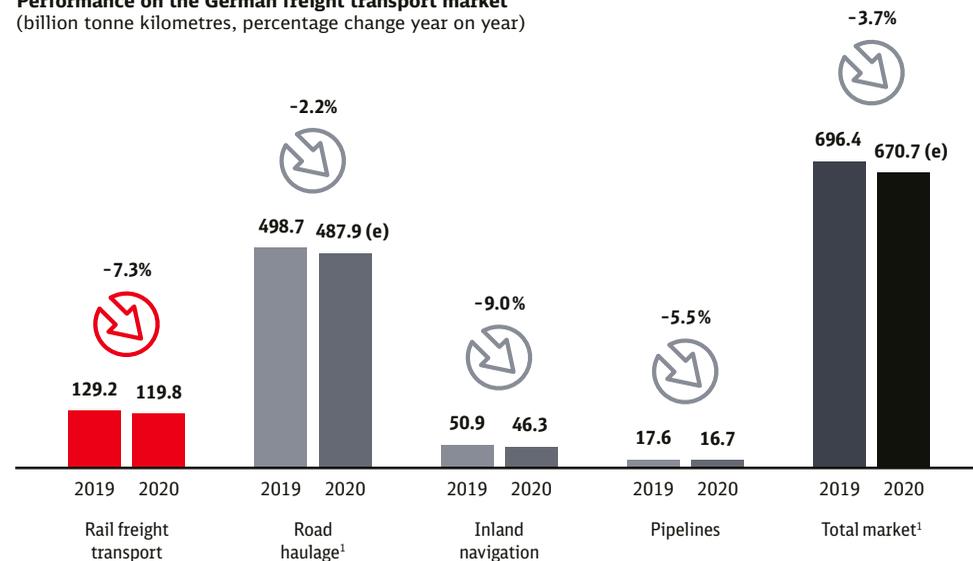
The coronavirus pandemic has severely hampered economic growth in Germany. In 2020, the country's GDP declined by 4.9% (2019: +1.1%). Germany's federal government expects growth to amount to 2.6% in 2021.

**Demand for transport declines:** Transport volume in the German freight market slid to an estimated 670 billion tonne kilometres (-3.7%) in 2020. Excess capacity and strong price competition were influential factors in the market, and their effects are still being felt in 2021.

### Economic and structural effects weigh heavily on railways:

Rail freight transport volume fell to some 120 billion tonne kilometres in 2020, a year-over-year decline of 7.3%. Growth in construction materials and supply transports was unable to completely offset a sharp dip in transport demand, particularly in the metals and coal and automotive industries. The decline in coal transports is also attributable to structural changes brought about by the ongoing decarbonisation of the power sector.

Performance on the German freight transport market (billion tonne kilometres, percentage change year on year)



<sup>1</sup> Preliminary; estimated (e)

Sources: Destatis, DB



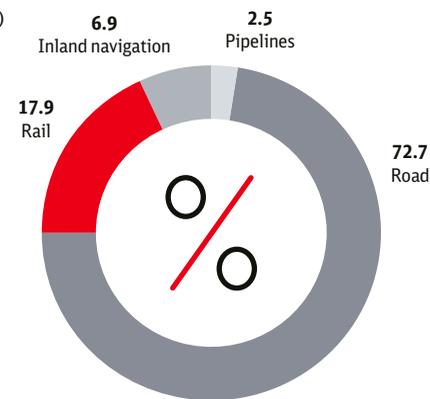
**Less severe decline on the roads:** With transport volume of some 488 billion tonne kilometres, road haulage experienced the mildest decline (-2.2%) of any transport segment in 2020. Transport demand in lorry-centric industries such as consumer retail, e-commerce and construction had a buoying effect.

**Inland waterway transport and railways lose market share:** In addition to being affected by negative economic growth, inland waterway transport once again suffered due to transport restrictions caused by low

water levels in 2020. The segment's market share fell to 6.9% (2019: 7.3%). Market share for rail fell to 17.9% (2019: 18.5%), while road haulage grew its share to 72.7% (2019: 71.6%).

**Trends for 2021:** Amid the ongoing economic recovery, the German freight market is growing once again. DB anticipates overall freight transport volume to rise by more than 5%, which will lift all transport segments. Rail is forecast to grow by some 7.5%, which will outstrip road haulage (roughly 5%).

**2020 modal split<sup>1</sup>**  
(measured in transport volume)



<sup>1</sup> Estimate  
Sources: Destatis, DB

# Rail

in Germany in 2020/2021

**After the crash, recovery:** In 2020, rail freight transport volume in Germany plunged 7.3% as a result of the coronavirus pandemic. In 2021, growth is expected to amount to roughly 7.5%. In 2021, freight operating companies have benefited particularly from strong growth in transport demand in industries such as coal, ore, steel and scrap, and from growth in the timber business and combined transport. It is possible that pre-pandemic levels may be achieved by the end of 2021.

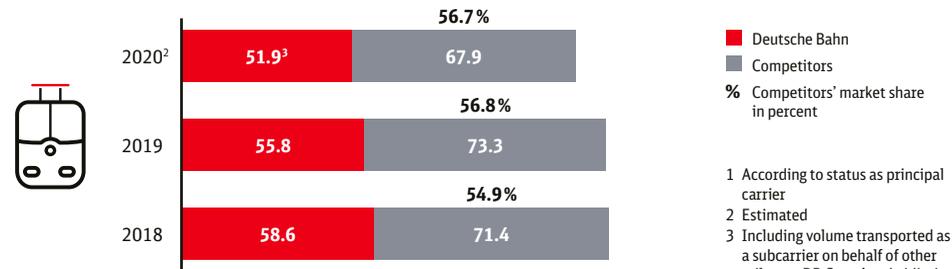
**Intramodal competition continues to be dynamic:** At some 68 billion tonne kilometres, transport volume for DB's competitors in German rail freight transport declined by 7.4% in 2020 (compared with 2019). This decline was less severe than that experienced by DB (-7,1%). The com-

pany's competitors had a market share of 56.7%, slightly below that of the previous year (2019: 56.8%).

**DB bets on growth:** With new Express services in single wagonload transport, DB Cargo is connecting Germany's economic hubs with fast overnight service, which has lorries providing first and last-mile service. Harbour links are being added in an effort to increase rail's market share in seaport hinterland services. In partnership with Kombiverkehr KG, an expanded network of terminals is providing more direct connections at tighter intervals to German and other European economic hubs. Processes are being digitalised and automated to make transshipment easier. Smart links between freight trains and lorries will support the shift of traffic to rail and reduce carbon emissions.



**Change over time in performance of freight operating companies<sup>1</sup>**  
(transport volume in billions of tonne kilometres)



Sources: Destatis, DB

1 According to status as principal carrier  
2 Estimated  
3 Including volume transported as a subcarrier on behalf of other railways, DB Cargo's subsidiaries transported 56 billion tonne kilometres in Germany in 2020.

**Network of the future for single wagonload transport:** In 2021, several railways, including DB Cargo, have established a network to expand single wagonload service and attract companies to the rails even if they lack a private siding of their own. Digital transport processes, standardised data exchange and operational optimisations are intended to increase the appeal of single wagonload transport (SWT) and make it more competitive. Currently, some 20% of Germany's transport volume is handled by the SWT segment.

**Initiatives to boost rail freight transport:** After infrastructure price subsidies were approved by the EU Commission, the German government began implementing them in December 2020 with a focus on single wagonload transport. The subsidy programme is set to run for five years. A total of EUR 80 million is available for 2021. Germany's federal programme to promote pioneering rail freight technology will run from 2020 to the end of 2024 and has an annual budget of EUR 30 million. The rail sector is matching the government's level of funding. Subsidies are going toward

innovation in digitalisation, automation and rolling stock engineering.

**EU Commission approves decrease in track access charges:** Freight railways have maintained most of their transport routes and ensured supply chain continuity despite declining demand in the face of the pandemic. To absorb the shock of financial losses, Germany's government is increasing its partial subsidisation of track access charges for rail freight transport to roughly 98%. Now that the EU Commission has approved this change, the subsidy can take effect from 1 March 2020 to 31 December 2021. Since July 2018, Germany has subsidised approximately 50% of track access charges; these subsidies are set to run a total of five years. Other countries, including Austria, Italy and France, have also reduced or suspended track access charges during the coronavirus pandemic, or they have plans to do so. This measure serves to stabilise transport performance among railways and represents an investment in shifting traffic to the rails, a necessity in terms of climate policy. Compared with lorries, freight trains generate 80% less greenhouse gases per tonne kilometre.



# European railways

Rail freight transport in 2020/2021

**Fraught economic environment:** The EU's economy shrank by 6.1% in 2020. This had an impact on transport demand in the European rail freight transport market, where transport volume declined by about 7%. The steel, ore, automotive and combined transport segments in particular experienced heavy losses.

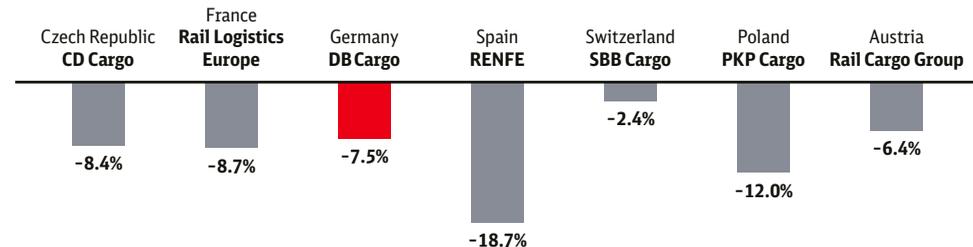
**Revenues fall sharply:** The coronavirus pandemic has had considerable consequences for the economy. The Community of European Railway and Infrastructure Companies (CER) estimates that freight operating companies in the EU 27 lost 11% of their revenues in 2020 (compared with 2019). The association reported that 2021 Q1 revenues were 10% lower than in the same period of 2019.

**Varied impact on railways:** In particular Spain's RENFE and Poland's PKP Cargo experienced significant declines in transport volume in 2020 (-18.7% and -12.0%, respectively). With a loss of 2.4%, Switzerland's SBB Cargo made it through the pandemic relatively unscathed.

**Growth returns:** In the first half of 2021, transport demand was on the rise again as industrial production and commerce recovered. DB Cargo saw transport volume rise by 12.6%. Global global bottlenecks hampered growth. For full-year 2021, transport volume in European rail freight transport is anticipated to increase by roughly 6%. Combined transport is expected to be a primary driver of growth.



**Performance by selected freight operating companies in Europe in 2020<sup>1</sup>**  
(measured in transport volume, percentage change year on year)



<sup>1</sup> Data retrieved in October 2021

Sources: Eurostat, UIC, companies

**Shifting freight to the rails:** With its Green Deal, the EU's aim is to become climate neutral by 2050. According to information from the EU Commission, roughly a quarter of all the EU's greenhouse gas emissions are generated by transport. Rail transport is responsible for less than 0.5% of transport-related emissions. This is why the Commission is pinning its hopes on growth in the railways' market share in the Sustainable and Smart Mobility Strategy it published in 2020. Its strategic targets are to increase rail freight transport's volume by 50% by 2030 and to double it by 2050.

**Levelling the playing field for competition and leveraging digital opportunities:** Particularly from a climate policy perspective, there is an urgent need to continue

improving the overall conditions for rail freight transport and to boost the segment in general. Freight operating companies currently face the challenge of investing in growth despite the heavy burdens placed upon them by the pandemic. Beyond increasing capacity, investments are needed to significantly increase efficiency and improve logistics capabilities. Key projects for rail freight transport include the European Rail Traffic Management System (ERTMS), the European Train Control System (ETCS) and digital automatic coupling. In order to help railways cover the high costs of upgrades and to speed up the pan-European rollout, the EU, the German government and the railway industry are joining forces to pave the way financially for these changes.



# Use of the rail network

in Germany in 2020/2021

The coronavirus pandemic snuffed out the years-long upward trend in track demand. The share of operating performance attributable to non-DB-Group rail companies on DB's network increased to 36.2% in 2020.

**Following a 2020 decline, track demand rises again in 2021:** Operating performance on DB's rail network dropped 2.2% in 2020 to 1,066 million train-path kilometres (2019: 1,090 million train-path kilometres). In 2021 H1, operating performance reversed course and amounted to 548 million train-path kilometres (+7% over the prior-year period). Non-DB-Group and Group-internal railways experienced increased track demand, which was driven by regional and freight transport. Operating performance is expected to continue improving in the latter half of the year. Growth will be boosted by state-sponsored measures which part of the climate protection pro-

gramme and by measures to address the fallout from the pandemic, such as an increase in funding for regional and local transport services and the subsidisation of track access and infrastructure costs for rail freight transport. In long distance transport, an expansion of services will foster increased demand.

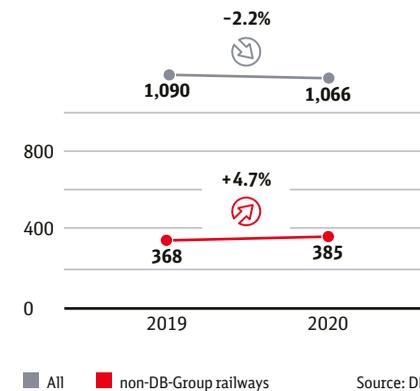
**Intramodal competitive pressure remains high:** Operating performance was lower in 2020 owing to DB railways, whose operating performance fell by 5.8% to some 680 million train-path kilometres compared with 2019. At roughly 385 million train-path kilometres, non-DB-Group



railways improved their operating performance by 4.7%. Their share of overall operating performance on DB's network climbed to 36.2% (2019: 33.8%). In 2021 H1, the percentage of network use by non-DB-Group railways rose again to reach 37.0%.

**An ongoing trend:** The number of requests submitted for the 2021 working timetable reaffirmed the trend of increasing track demand among non-DB-Group railways. In long distance transport, the number of their train path requests grew by 11%, and in regional and local transport, by 5%. The level of requests remained static in rail freight transport.

Operating performance on the DB network (million train-path kilometres)





**Record investments are creating the capacity to decarbonise mobility:** Some EUR 12.2 billion provided by Germany's government, its states and DB have gone toward the rail network, rail stations and electrical power systems in 2020. In 2021, this figure will rise to EUR 12.7 billion. The third Performance and Financing Agreement for the existing network between the German government and DB entered into force in 2020. Over its ten-year term, the agreement will govern expenditures amounting to EUR 86 billion, including investments in service and modernisation and maintenance expenses at DB. According to current estimates, some EUR 170 billion in public and DB's own funds will be channelled into rail infrastructure between 2020 and 2030.

**Reforming the funding framework:** Increasing the level of investment is essential to achieving climate and transport policy targets. However, the rules which currently apply to funding are not well suited to a higher investment levels. The rules require that railway infrastructure companies make increasing own-funds contributions, which cannot be funded by infrastructure charges without working against the effort to decarbonise mobility. This is why it's necessary to work with the German government to explore how to cap own-funds contributions. Beyond investments, design and development costs should also be financed from the public coffers. A railway infrastructure fund would stabilise the funding situation and increase the level of planning certainty.

**Digital Rail for Germany makes progress:** The German government and DB entered into a financing agreement in 2020 which launched a project to digitalise the Stuttgart metropolitan area. In addition to a new central station and other railway stations, the project will upgrade more than 100 km of routes to use digital signalling technology, the European Train Control System (ETCS) and highly automated driving by 2025. In 2021, work will begin to upgrade the Rhine-Alpine freight transport corridor to use ETCS. Starting in October 2021, the first highly automated vehicles will enter into service on a digitalised section of S-Bahn track in Hamburg.

**Ambitions for a faster rollout:** DB and industry partners aim to upgrade the network with digital control-command and signalling equipment as soon as 2035 rather than 2040. More-efficient processes, targeted pilot projects and the accelerated use of digital signalling equipment (DSTW) are intended to help in this effort. As part of its coronavirus rescue programme, the German government is making EUR 500 million available until the end of 2021 to use pilot projects to develop and test new processes and technologies for a network-wide upgrade to DSTW. The pilots must be completed by the end of 2021 so the DSTW rollout can begin in 2022.

# Rail's contribution

to protecting the environment

**Rail transport is the future. Green rail-ways are needed to achieve the climate protection targets set by Germany and the EU. DB is consistently positioning itself for long-term success by raising its climate and noise control targets.**

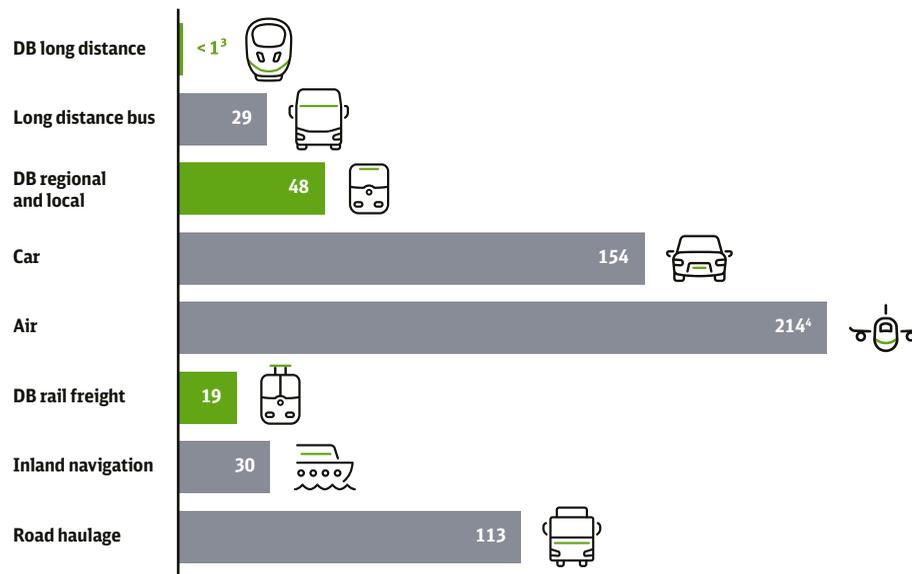
**New climate protection targets:** Moving toward climate neutrality, Germany and the EU have set ambitious climate targets for themselves. The EU has increased its target for reducing carbon emissions from 40% to 55% by 2030, while Germany has moved its target up from 55% to 65% (compared with 1990 levels). Germany now aims to achieve greenhouse gas neutrality as soon as 2045 instead of 2050. The country has set a new target of capping allowable emissions generated by the transport sector at 85 million tonnes of CO<sub>2</sub> equivalents by 2030 (previously: 95–98 million tonnes of CO<sub>2</sub> equivalents). To reach this target,

Germany intends to shift transport to the rails.

**Shifting transport to the rails protects the climate:** Comparing the various modes of transport in Germany, the railway has been the only one with a consistently small carbon footprint since 1990. Over the last 30 years, only the railway has reduced its carbon emissions by some 70%, a significant feat. DB's rail passenger and freight transport segments thus generate the lowest level of specific greenhouse gas emissions of any motorised mode of transport. Over 90% of train service runs on electricity.

## Climate-friendly rail

(Greenhouse gas emissions (CO<sub>2</sub>e<sup>1</sup>) in grams per person/tonne and kilometre in Germany<sup>2</sup>)



1 CO<sub>2</sub>e: Total greenhouse gases (carbon dioxide, methane and nitrous oxide); emissions from the supply and conversion of energy sources are included

2 Figures rounded

3 Includes unelectrified journeys (<2%)

4 Includes all effects on the climate from air traffic

Sources: German Federal Environment Agency, 2019 (TREM0D 6.16 V2 (6/2021); year of reference: 2019); rail: DB AG (year of reference: 2019)

2020 noise control target achievements

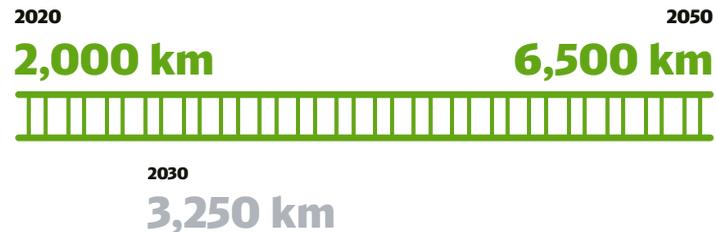


**DB Group to be climate neutral by 2040:** DB has moved up its climate neutrality target from 2050 to 2040. The target applies to rail infrastructure and operations in Germany and to DB Schenker, the Group’s logistics subsidiary. To achieve carbon neutrality, DB will need to supply its depots, office buildings and railway stations with pure green energy from 2025 onward. DB aims for its traction current mix to comprise 100% renewable energy by 2038 or sooner. Additional measures the Group is taking to reduce carbon emissions include using more energy-efficient trains

and alternative drive systems and fuels. Digitalising the railway will also contribute to shrinking DB’s carbon footprint.

**Half as loud:** In 2020, DB hit its target of cutting railway noise in half compared with noise levels in the year 2000. DB has also undertaken noise abatement measures on more than 2,000 km of routes – for instance, by installing noise barriers and sound-insulating windows. Additionally, since December 2020, all of the freight wagons DB Cargo uses in Germany have been equipped with whisper brakes.

German routes on which noise abatement measures (will) have been undertaken



**Vehicles with more noise control:** With freight wagons done, locomotives are next: By 2025, DB Cargo’s electric main-line locomotives in Germany will be using low-noise brake systems. By 2030, DB Cargo will have phased out all of its noisy diesel locomotives from long distance service. Over the next few years, DB Long Distance will replace all of its diesel shunting locomotives with particularly low-noise, climate-friendly hybrid shunting locomotives.

**New noise control targets for 2030 and 2050:** Expanding upon its noise control

efforts is part of DB’s green transformation. DB’s goal is to make its network low noise across all of Germany. By 2030, noise control measures will have been taken for more than 800,000 residents living near particularly noisy routes; by 2050, these types of measures will have been taken for all such residents (more than 1.6 million in total). To meet this goal, noise abatement measures will have been undertaken on a total of 3,250 km of routes by 2030 and 6,500 km by 2050, all as part of the German government’s noise abatement programme.

## Transport performance data since 2016 at a glance



### Passenger transport

Transport volume in Germany in billion passenger kilometres	2016	2017	2018	2019 <sup>1</sup>	2020 <sup>1</sup>
Rail	94.2	95.5	98.2	102.0	57.5
Public road transport	73.7	71.4	72.1	71.3	45.4
Private motorised transport	965.2	912.4 <sup>2</sup>	913.3	917.0	807.0
Air travel (domestic in Germany)	10.5	10.4	10.3	10.1	2.6
Total market	1,143.5	1,089.7	1,093.8	1,100.4	912.4

Sources: Destatis, DB

## Transport performance data since 2016 at a glance

### Freight transport

Transport volume in Germany in billion tonne kilometres	2016	2017	2018	2019 <sup>3</sup>	2020 <sup>4</sup>
Rail	128.9 <sup>5</sup>	131.2	130.0	129.2	119.8
Road	473.8	486.0	497.2	498.7	487.9 (e)
Inland navigation	54.3	55.5	46.9	50.9	46.3
Pipelines	18.8	18.2	17.2	17.6	16.7
Total market	675.8	690.9	691.3	696.4	670.7 (e)

Sources: Destatis, DB

### Infrastructure

Operating performance in Germany in million train-path kilometres	2016	2017	2018	2019	2020
On the network	1,068	1,073	1,085	1,090	1,066
Of which non-DB-Group customers	322	331	349	368	385

Source: DB

1 2019 and 2020 data provisional, partly estimated

2 Methodological changes by the Federal Statistical Office starting in 2017

3 Road and total market data for 2019 provisional

4 Road, rail, inland waterway and total market data for 2020 provisional, partly estimated (e)

5 Data revision by the Federal Statistical Office, applied retroactively from 2016

