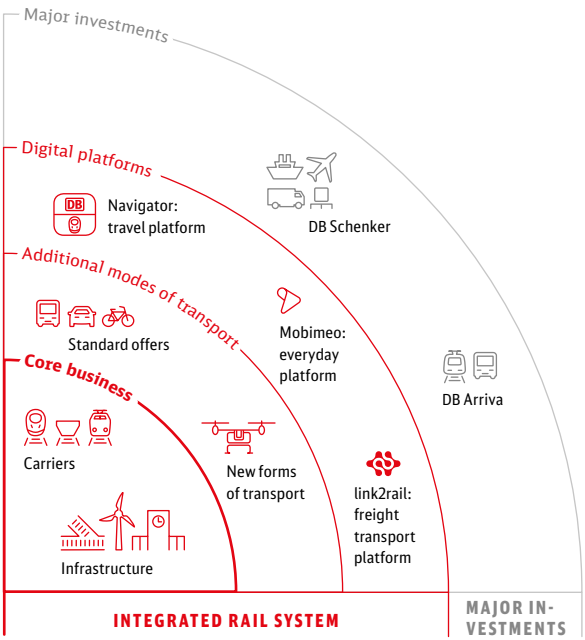
Deutsche Bahn Universe

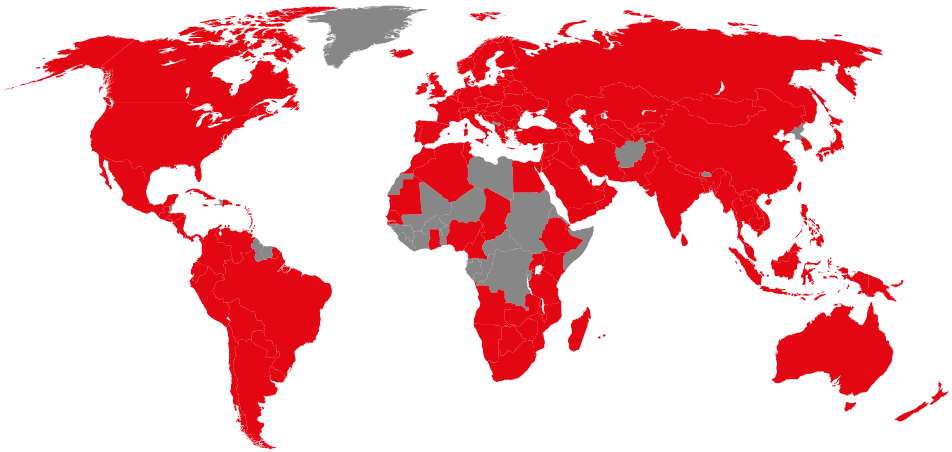
Deutsche Bahn at a glance

Deutsche Bahn Group (DB Group) is a leading supplier of mobility and logistical services with a clear focus on rail transport in Germany. Its headquarters are in Berlin. About 340,000 employees are employed by DB Group, including over 200,000 in the integrated rail system. By integrating transport and rail infrastructure, as well as through the economically and environmentally intelligent linking of all modes of transport, we move both people and goods. DB Group largely consists of the integrated rail system and the two major international subsidiaries DB Schenker and DB Arriva. Our integrated rail system includes our passenger transport activities in Germany, our rail freight transport activities, the operating service units and the rail infrastructure companies (RIC) in Germany.

Basic understanding of DB Group



Worldwide presence



New in 2019

DB Engineering&Consulting: Ireland, Latvia, Macedonia, the Netherlands, Ukraine, Egypt, Ghana, Canada, Chile

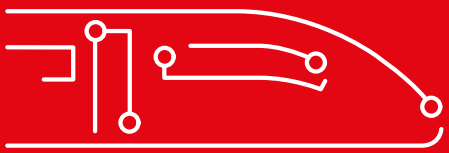
You can find an overview of our country activities online **DB.DE/LINKS_IR19**

Activities and market positions

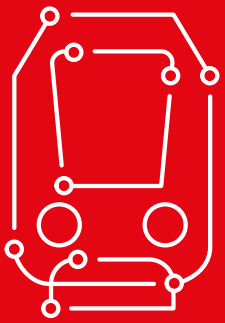
Facts and figures Integrated rail system

289

ICEs included in our fleet at the end of 2019 with the number of ICE trains increasing



Long-distance passenger transport, operated on a purely commercial basis, and with the ICE / Intercity / EC fleet, is the backbone of DB Long-Distance in Germany.



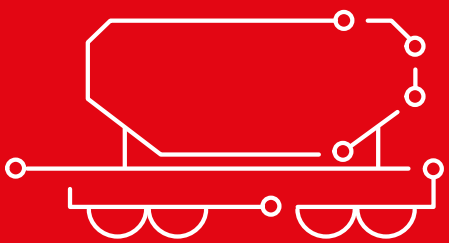
2.0

billion passengers annually in regional transport

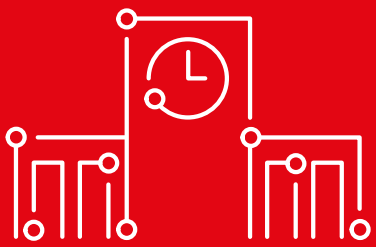
DB Regional offers passengers comprehensive mobility services in major cities and metropolitan areas, but also especially in rural areas.

> 230

million tons of freight carried by rail freight transport



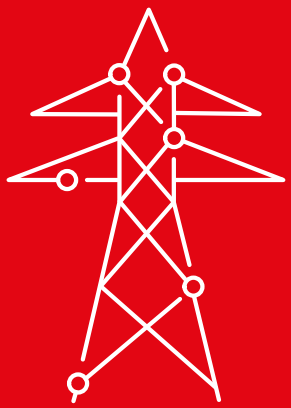
With about 4,200 customer sidings in Europe, DB Cargo provides its customers with access to one of the biggest rail networks in the world.



~5,700

passenger stations

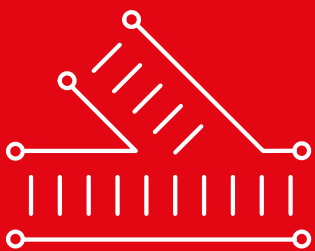
DB Netze Stations is the largest station operator in Europe.



> 7,900

km of traction current grid

DB Netze Energy offers all of the conventional industry energy products related to traction energy and stationary energy supply.



~33,400

km of rail network in Germany

DB Netze Track operates the largest rail network in Europe.

Integrated rail system Highlights 2019

FLEET

Expansion of the ICE 4 fleet

Sixteen additional 12-car ICE 4 trains with 830 seats were introduced in 2019, allowing the first cross-border connections to be upgraded with the latest generation of ICE vehicles since December 2019 in addition to expansions in the national ICE network. With the ICE 4, you can now travel on climate-friendly transport directly from Hamburg to Zurich and Chur via Frankfurt am Main. The ICE 4 features high-quality travel comfort, innovative technology and exceptional energy efficiency.

Modernization of Berlin S-Bahn (metro) vehicles

The trains of the series 481 (up to 2004) of the S-Bahn (metro) Berlin are being modernized, and in October 2019 the first completed vehicle was presented. The modernized trains will also operate with the look of the new 483/484 series in the future. In addition to the new exterior design with black door panels, vehicle interiors are being extensively modernized. A total of 32,000 m^2 of flooring, 12,000 door-opening buttons, 13,000 window frames and solebars are being refurbished.

Diesel multiple units for the Middle Franconia railway

Eight new two-part diesel multiple units have been used on the Middle Franconia railway since June 2019. The 54-meter-long trains from Alstom's 622 series offer about 20 % more capacity with 170 seats. Passengers can enjoy a new interior design, displays providing real-time journey information and ticket vending and validation machines on the train.

Double-deck trains for the Intercity fleet

We have expanded our Intercity fleet in the short term with 17 new double-deck trains from Swiss manufacturer Stadler. Eight of the trains have been supporting long-distance transport services on the new Intercity line Dresden — Berlin — Rostock since March 2020. The trains are being repainted on the outside with a design inspired by Bombardier's Intercity 2 double-deck trains.

New cargo e-bikes for StadtRAD Hamburg and RegioRadStuttgart

In Hamburg and Stuttgart, we are providing environmentally friendly transport that is suitable for everyday use with cargo e-bikes. These allow cyclists to transport 45 kg in the cargo box and 15 kg on the baggage carrier. Thanks to the seat and straps in the cargo box, the bikes even allow riders to take along children (aged two to seven) for a comfortable and safe ride.

First electric bus lines in North Rhine-Westphalia

Our first fully electric bus in Germany began servicing routes in regional urban transport at the end of 2019. It is initially being used on two lines in the Bocholt city bus network. The bus, from the company EBUSCO, can be entirely recharged with hydroelectricity and can cover distances of up to 280 km.

New regional railway fleet in the Rhineland

The new 1440 series Coradia Continental trains from the manufacturer Alstom have been in service since December 2019. They will be used with a total of 25 trains in the Saar e-network on the RB 70 and RB 71 lines. The four-car trains have a top speed of 160 km/h and are fitted with 206 seats. They feature sockets, video cameras, free WiFi and a state-of-the-art passenger information system with real-time information about the schedule and connections.

Half-way through modernizing S-Bahn (metro) Hamburg

Since the beginning of the modernization of the S-Bahn (metro) Hamburg fleet in 2016, 69 out of a total of 111 vehicles have been modernized. This means that the plan to modernize all trains of the 474 series by the end of 2021 is on schedule. Capital expenditures for the upgrade program amount to about € 70 million in total.

New diesel rail cars for the Allgäu region

The new Link VT 633 diesel rail cars have 130 seats in the 2nd class and 12 seats in the 1st class. These trains can reach a maximum speed of 140 km/h. The vehicles were originally intended to be in use from December 2017, but the manufacturer PESA had difficulties delivering them. All 26 vehicles should be delivered by the end of January 2020.

Modernizing car transporters

Extensive work to modernize car transporters of the type Laaks 553 began in 2019. The cars are being rebuilt to meet current and future requirements in the automotive sector so that larger vehicle models can be transported. All 250 cars will be upgraded at a depot in Subotica (Serbia) owned by the Tatravagónka car manufacturer. The works are scheduled to be completed by mid-2020.

Converting to coupling cars

In 2019, DB Cargo used DB Vehicle Maintenance to modify four existing Rilns 652.0 cars and convert them into coupling cars. These cars are used to transfer multiple units in passenger transport and have been equipped with Scharfenberg couplers that are common with multiple units.

CleverShuttle expands fleet with hydrogen automobiles

In 2019, CleverShuttle added 25 new hydrogen automobiles to its vehicle fleet. The service is using the Hyundai NEXO that has a range of up to 756 km. The Hyundai NEXO generates its traction current using a reengineered fuel cell system and can be refueled in less than five minutes. These new vehicles offer space for four passengers and are currently being used in Berlin.

Upgrading freight cars

More than 1,100 Res 679.1 freight cars are being modernized in the DB Cargo depot in Rybnik/Poland to compensate for the disposal of out-of-date two-axle cars used to take ballast away from construction sites in the rail network. As part of these modernization works, the front and side walls are being enlarged by around 10 cm, resulting in a payload increase from approximately 36 t to approximately 45 t. There was an intake of about 600 modernized freight cars in 2019.

Modernizing sleeper carrier cars

Sleeper carrier cars are used within the rail construction fleet to supply construction sites with railroad sleepers. Up to 230 of the Snps 719 cars that have so far been used for transporting lumber will be upgraded. Modernizing the freight cars will increase their load capacity from 150 to 180 ties. A total of 50 upgraded vehicles were commissioned in 2019.

WiFi in all S-Bahn (metro) trains of central German and Rhein-Main S-Bahn (metro) networks

Passengers on all trains in the central German and Rhein-Main S-Bahn (metro) networks can access WiFi free of charge. Each user is given 50 MB of data per device on S-Bahn (metro) trains in central Germany. Passengers on the Rhein-Main S-Bahn (metro) are given 100 MB of data daily for each device.

On-demand service in Paderborn and Pforzheim

A new on-demand shuttle service transports customers to and from Paderborn airport from an address specified by the customer without any fixed schedule or route. With the PAD Shuttle app, customers can book a journey any time ranging from an immediate pick-up to 30 days in advance. In Pforzheim, the new PforzheimShuttle was integrated into the existing urban transport network as an on-demand service. ioki developed the technology for the platform.

First German line with ETCS L1 LS in operation

ETCS stands for European Train Control System and is a computer-assisted, standardized European train control system. Digital ETCS technology operates continuously to ensure that a train does not exceed the permitted speed. DB Netz AG first started using level one of the European digital control system in August 2019 on the Basel hub, the Erzingen—Konstanz line and the border rail lines to Switzerland.

LEADER devices connected to live data

In 2019, all LEADER (Locomotive Engineer Assist Display and Event Recorder) devices at DB Cargo were connected to live operational data from DB Netz AG. This supplements the calculation of the driving recommendations with information on the actual operating situation. LEADER processes statistical data and shows the vehicle driver recommendations for energy-efficient driving.

Audio system piloted for platform announcements in Frankfurt am Main

With the innovative Holoplot audio system, passengers should be able to hear platform announcements much better. The technology ensures that sound waves are focused like a beam of light on any point in space. By the end of 2019, this system had been tested on underground S-Bahn (metro) platforms at the Frankfurt am Main central station. The piloted system allowed customers to receive just the information relevant to them, and they benefited from announcements that were much easier to hear.

Digital interlocking for long-distance transport

In the future, train transport in Germany will be controlled by digital interlocking systems. The digital interlocking launched in Warnemünde (Mecklenburg-Vorpommern) in 2019 has been the first digital interlocking to control even long-distance trains since March 2020. Digital interlockings remove the need to use cable bundles, some of which are kilometers in length, to make individual connections to individual interlocking elements. Interlocking commands are now transmitted digitally via high-performance fiber-optic cables to tracks, switches and signals.

Stations with a future

We are testing new services for passengers and visitors at 16 so-called future stations. Whether standing workstations located on the platform, digital sensors in trash cans or green spaces on the station forecourt – all station types are represented, from city central stations to smaller stations on feeder lines in more rural regions. The future stations are all being powered with 100 % ecopower.

Bridge modernization program completed

Since 2015, we have extensively renewed a total of 902 bridge structures. As a result, the contractually prescribed target from the Performance and Financing Agreement (LuFV) II of 875 was significantly exceeded. Over the next ten years, the LuFV III will be used to tackle the renewal of a further 2,000 railway bridges.

New S-Bahn (metro) station in Hamburg

The new Elbbrücken S-Bahn (metro) station has been opened. The stop connects the Hamburg central station — Hamburg-Harburg line with the HarbourCity. The new station's two platforms, measuring about 210 meters in length, are covered by a curved, about 90-meter-long steel construction, which has been fitted with 800 glass panels. The station cost about € 70 million to construct.

Gateway Gardens S-Bahn (metro) station opened in Frankfurt am Main

After three years under construction, the S-Bahn (metro) connection for the new Gateway Gardens district at Frankfurt Airport opened on time in December 2019. Additional track of 4 km needed to be built to connect the new S-Bahn (metro) station to the Frankfurt Stadion station and Frankfurt Airport regional station. The S-Bahn (metro) lines S8 and S9 will stop at Gateway Gardens in the future.

The Hamburg-Langenfelde depot starts ICE 4 maintenance

Two 400-meter-long tracks in the Langenfelde facility have been equipped with cranes, track-length platforms for roof work and bridges for exchanging wheel sets, all of which can be used for optimized maintenance of the ICE 4. Other new additions include eco-friendly supply and disposal facilities on the tracks, daylight-dependent LED lighting and a 200-meter-long overhead conductor rail that can be pivoted.

Retrofitting ICE T with bicycle storage spaces

In 2019, passengers were given more options for taking bicycles on board ICE trains. With the retrofitting of 59 trains of the seven-car ICE T trains (411 series) the fast city connections that can be booked for bicycle transport with the ICE 4 could be extended with the operating routes of the ICE T. There are three reservable bicycle storage spaces in every ICE T train of the 411 series.

Opening Dresden—Berlin—Rostock line coinciding with schedule change

Germany's new long-distance transport route, the IC17 Dresden—Berlin—Rostock line, began operating in mid-December 2019 with ten journeys a day. Since March 2020, the line has been running a service every two hours with 16 journeys a day. This means six locations receive a regular long-distance transport connection every two hours, including Elsterwerda, Oranienburg, Neustrelitz and Waren (Müritz). Warnemünde and Berlin Schönefeld airport will be added to the line in May 2020.

East Schleswig-Holstein e-network won

DB Regional has once again been awarded the contract for the e-network East, comprising the Puttgarden—Lübeck, Lübeck—Travemünde—Lübeck and Lübeck—Hamburg lines and covering about 4.2 million train km per year. The term of the contract is 13 years, and operations start in December 2022. New KISS trains from Swiss manufacturer Stadler are being used for the transport contract. The trains feature WiFi facilities and a reservation system.

Redesigned DB Lounge

Two redesigned DB Lounges were opened in August 2019. The lounges, provided for passengers with 1st class long-distance tickets (flex fare and saver fare tickets) and customers with bahn.bonus-comfort status, are divided into a work, rest and communications area. The design is distinctively modern, featuring friendly colors and elegant furnishings. All 15 DB Lounges will be refurbished with this design by 2023.

DB Arriva facts and figures

DB Arriva aims to achieve growth in the European passenger transport market. DB Arriva's vision is to become Europe's mobility partner of choice.

2.2

billion passengers annually (bus and rail)

14

European countries where DB Arriva operates

With buses, trains, trams, water buses, car- and bike-sharing systems, DB Arriva offers a wide range of transport solutions. The activities of DB Arriva are divided into three lines of business: UK Bus, UK Trains and Mainland Europe.

~16,400

buses (including external)

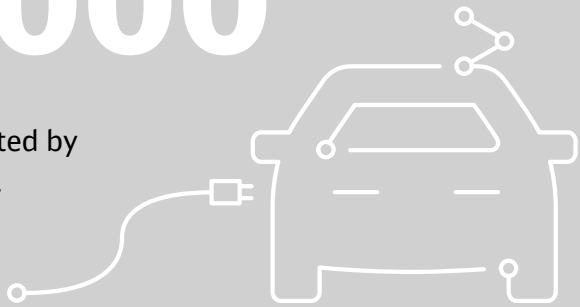
~1,200

multiple units

DB Arriva's journey to its strategic environmental goal, Destination Green, is an integral part of our corporate culture.

100,000

customers have used the car-sharing service operated by DB Arriva in Copenhagen.



DB Arriva Highlights 2019

New bus contracts launched in Warsaw

DB Arriva launched new bus services in Warsaw/Poland in August 2019. To run these services, 54 new environmentally friendly CNG buses were introduced, which are powered by natural gas. These buses should help reduce NOx pollution and greenhouse gas emissions in the Polish capital.

Expansion of activities in Sweden

Since June 2019, DB Arriva has been operating regular transport services with 85 new or modernized buses in the southern Swedish port city of Helsingborg. The fleet also includes 13 electric buses for the Helsingborg Express line.

New electric buses in the Netherlands

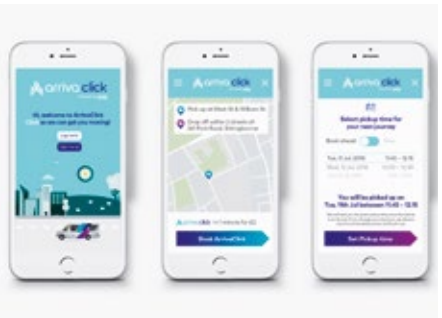
In Limburg/the Netherlands, DB Arriva commissioned another 55 electric buses for regional services. The Citea LLE-115 Electric models from VDL Bus&Coach service routes in Maastricht, Sittard, Venlo-Venray and Heerlen, offering space for 65 passengers. With 180-kWh batteries, the buses can be charged quickly and can cover over 400 km a day.

Additional regional lines around Prague

DB Arriva won its largest rail transport contract in the Czech Republic to date, and has been operating four additional regional lines in Prague since December 2019. The services are using 27 diesel rail cars from the 628.2 series, which were acquired from DB Regional and modernized for use in the Czech Republic. The three-year contract, worth € 45 million, has an option for extension of up to two years.

ArrivaClick on-demand service expanded

ArrivaClick, an app-based on-demand bus transport service that was launched in 2017, expanded its service offering. After winning tenders, DB Arriva has also been offering on-demand minibus services in Liverpool, Leicestershire and Hertfordshire since 2019.



Contract for bus services in Italy won

In Italy, DB Arriva had a ten-year bus contract renewed in November 2019 with an order volume of € 1 billion. As a result, DB Arriva will continue to operate 750 buses in the Friuli-Venezia Giulia region.

DB Schenker facts and figures

107

million shipments in land transport

>130

countries in the worldwide network

DB Schenker is the world's leading provider of global logistics services, supporting industry and trade in global goods exchange through land transport, global air and ocean freight, contract logistics and supply chain management.

DB Schenker serves established markets and emerging national economies as an integrated transport and logistics services provider with a worldwide network.

1.2

million tons of air freight

8.4

million m² warehouse space in contract logistics

DB Schenker has a global customer base in a wide range of industries and a focus on industrial customers.

2.3

million TEU by ocean freight

DB Schenker Highlights 2019

FLEET

Fully electric truck in operation in Gothenburg

Volvo delivered the first fully electric truck to DB Schenker in February 2019. The truck is being tested in everyday traffic in Gothenburg and has been configured to have a battery capacity of about 80 km. The battery is charged overnight at a DB Schenker terminal in Gothenburg. The truck is designed for transporting foodstuffs and holds 18 pallets.

NETWORK

New warehouse in Switzerland

The state-of-the-art 4,000 m² warehouse was opened in early 2019, and is strategically located near the Italian border. As several major European airports are within easy reach, transport routes for air and ocean freight can be easily connected.

Fully solar-powered logistics hub opened in Dubai

DB Schenker opened its first fully solar-powered logistics hub in Dubai. The temperature-controlled hub covers 33,000 m², offering space for 90,000 euro pallets, and features a 3,000 m² mezzanine. Direct connections to the Port of Jebel Ali, the largest seaport in the Middle East, and the Al Maktoum International Airport make transports quick and easy.

Sustainable distribution center opened in Norway

The first low-carbon distribution center in Norway, the Oslo City Hub, is located right in the city center. The building covers 457 m² and is constructed from containers. Electric vans and e-bikes are responsible for distributing all of the goods.

Spare parts center for automobile manufacturer in Canada

DB Schenker operates a spare parts center for an automobile manufacturer in Canada. The warehouse has a size of about 16,000 m² and is located in Mississauga/Ontario. The site also includes a training center and a test vehicle warehouse.

Autonomous robots transporting pallets

DB Schenker is using autonomous robots from the manufacturer Gideon Brothers in Leipzig as part of a pilot project. The autonomous robots use artificial intelligence to store a map of the area and can safely move around obstacles. The robots can transport loads of up to 800 kg and have a quick battery change system.

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