



**Deutsche
Bahn
Universe**



THE TREND TOWARDS RAIL TRANSPORT CONTINUES UNABATED

DB GROUP OFFERS ATTRACTIVE, CUSTOMER-FOCUSED AND ENVIRONMENTALLY FRIENDLY MOBILITY, TRANSPORT AND LOGISTICS SOLUTIONS, AND NETWORKS FROM A SINGLE SOURCE.



DB Group market position in Europe and around the world

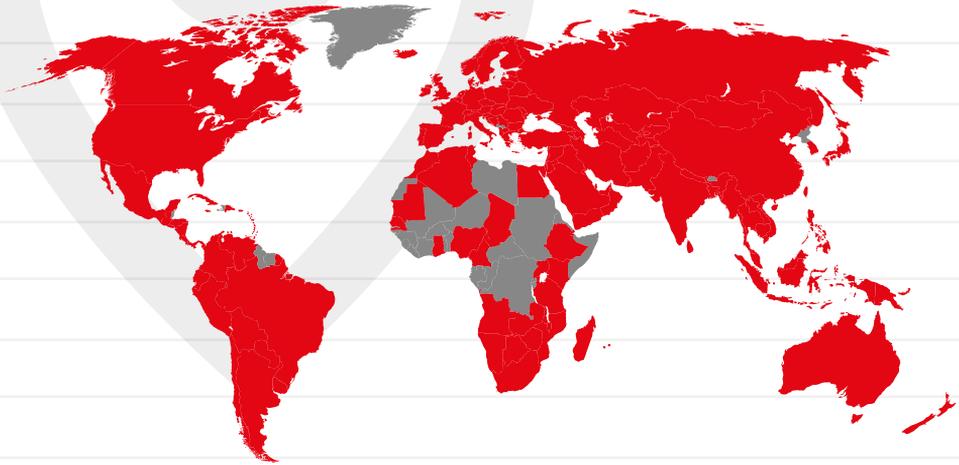
**WORLDWIDE
PRESENCE**

NEW IN 2018

DB Cargo: China

DB Schenker: Lesotho, Mauritania

DB Engineering & Consulting: Argentina,
Colombia, Ecuador, Peru, Uruguay



DEUTSCHE BAHN FACTS AND FIGURES

DB Group is an international provider of mobility and logistics services operating globally in more than 130 countries. We have more than 318,000 employees, with almost 40% employed outside of Germany. 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. We occupy leading market positions in all relevant mobility and logistics markets.



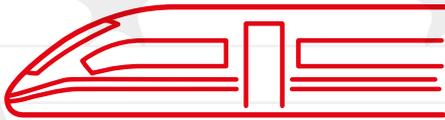
FACTS AND FIGURES

PASSENGER TRANSPORT

The core of DB Long-Distance's operations in Germany is long-distance passenger rail transport operated on a purely commercial basis with the ICE, IC and EC fleets.

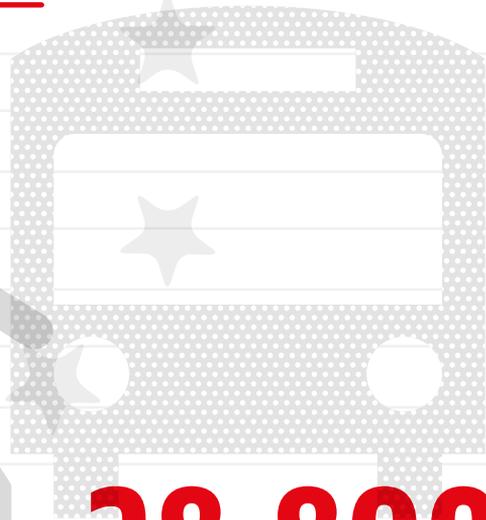
**IN 2018 OUR ICE FLEET
WAS EXPANDED TO**

274



>4.6

**BILLION PASSENGERS
ACROSS EUROPE**



28,800

BUSES IN OPERATIONS

DB Regional provides regional rail passenger transport and bus services with an extensive network of regional express, regional train, S-Bahn (metro) and regional bus lines, thus offering passengers connections in metropolitan areas and in rural areas across Germany.



2.1

**BILLION PASSENGERS ON OUR
TRAINS IN GERMANY**

15

**EUROPEAN COUNTRIES IN
WHICH WE OPERATE**

2.0

**BILLION PASSENGERS
OUTSIDE OF GERMANY**

DB Arriva is our European growth platform in passenger transport. With our buses, trains, trams, waterbuses and car- and bike-sharing systems, DB Arriva offers a broad range of transport services in 14 European countries.

HIGHLIGHTS 2018

PASSENGER TRANSPORT

FLEET



MORE ICE 4 VEHICLES IN REGULAR OPERATION ON MORE LINES

The ICE 4 (412 series) began regular operations in December 2017 and has been running as scheduled on the high-speed line Berlin—Munich since December 9, 2018. The ICE 4 fleet will grow to a total of 119 trains by 2023. The new generation of trains will thus form the backbone of long-distance transport. As the most modern ICE in the long-distance fleet, the ICE 4 combines travel comfort, innovative technology and energy efficiency.



CONTINUED MODERNIZATION OF THE ICE 3 FLEET

In 2018, the single-system ICE 3 (403 series) vehicles continued to be modernized, while the multi-system 406 series trains began modernization. Passengers are benefiting from new interior furnishings, increased luggage space, more screens that display information in real time and even more features, which can all be found in increasing numbers of ICE 3 trains. The respective ICE 3 trains will all be modernized by 2020.

The new Hamburg S-Bahn (metro) 490 series vehicles were introduced into the fleet in December 2018 with outstanding features such as seamless carriages, air-conditioning, new passenger information systems and multipurpose compartments. We are investing in new facility capacities and the modernization of existing fleets on the Hamburg S-Bahn (metro).



NEW TRAINS ON THE HAMBURG S-BAHN (METRO)

MODERNIZING THE MUNICH S-BAHN (METRO) VEHICLES



Our Munich S-Bahn (metro) trains (series 420 and 423) will be completely modernized by 2020. The first modernized train went into service in July 2018. Passengers benefit from new seats, carpets and monitors, among other features. In addition to new exterior and interior paintwork, the seat covers, floors and partitions are being refurbished in a new color scheme.

We expanded our existing bike-sharing service by a further 500 bicycles in 2018. Pedelects use electric motors to support pedaling for up to 70–80 km on one battery charge and are easy to use: the motor switches on when the bicycle is unlocked and switches off again when locked. The electric motor mainly gives support when riding up-hill and adapts to the pedal strokes.



NEW PEDELEC POWERED BY CALL A BIKE



NEW DIESEL MULTIPLE UNITS IN THE SAUERLAND NETWORK

All of the two-part PESA Link diesel multiple units (632 series) that were ordered by DB Regional were delivered in 2018. The vehicles are being used for Dortmund services to Sauerland and feature spacious restroom cubicles with diaper-changing tables as well as ticket machines and ticket validation machines. More three-part diesel multiple units (633 series) are expected to be delivered during 2019.



EXPANSION ACTIVITIES IN BUDAPEST

In 2018, DB Arriva acquired all shares in the current joint venture VT-Arriva from the joint venture partner, making it the sole owner. DB Arriva expanded the vehicle fleet in Budapest with 50 MAN Lion's City A21 buses and 33 Mercedes-Benz Conecto G buses with the aim of further enhancing the quality of urban public bus services. The average age of the vehicles in Budapest is under two years due to continuous improvements and capital expenditures.



NEW ELECTRIC BUSES IN THE NETHERLANDS

Since 2016, DB Arriva has been the first operator to provide all regional rail and bus services in the Dutch province of Limburg from a single source. The whole Limburg fleet will be converted to electric vehicles by 2026. In 2018, 24 new electric buses began operating in Limburg, bringing the total number of electric buses to over 40.

EXPANSION OF THE DRIVENOW FLEET IN COPENHAGEN

DB Arriva operates the DriveNow fleet in Copenhagen. The number of rental vehicles increased significantly in summer 2018, thereby expanding the on-demand service by 40% for customers. Over 500 vehicles, including 350 electric vehicles, have been available to rent at any time in the city since June 2018. The fleet features BMW i3 and BMW 1 Series cars as well as three and five-door Mini Coopers.



FLEET



FIRST CARBON-NEUTRAL ICE MAINTENANCE FACILITY OPENED

The first completely carbon-neutral maintenance facility officially began operation in Nippes, Cologne in June 2018. The facility spans an area 2.6 km in length and 100 m wide with a total of four maintenance tracks. In order to run the facility in a carbon-neutral manner, heating is provided by geothermal sources and electricity from solar energy sources while the facility is in operation. In addition, a 2,100 m² photovoltaic installation was constructed, which covers the electricity demand of the heat pumps. The facility completely avoids using fossil fuels. These measures help save 1,000 t of CO₂ annually. In order to reduce noise pollution for residents, so-called whisper rails were installed, which allow the trains to run more quietly.

LAUNCH OF THE IOKI ON-DEMAND SHUTTLE IN HAMBURG



With ioki, we are bringing on-demand mobility and autonomous driving into public transport. In 2018, we expanded our service with the launch of the on-demand shuttle service in Hamburg. Electric vehicles operate on-demand in the Lurup and Osdorf districts. The service can be booked around the clock using the ioki Hamburg app.

Starting on August 1, 2018 we made travel even easier with the integration of City Tickets into all long-distance transport saver and flex fare tickets. Passengers can use the City Ticket to travel free of charge on public transport, such as the S-Bahn (metro) and subway, tram or bus, within the city zone of the origin or destination station.



CITY TICKET INTEGRATED INTO ALL FLEX AND SAVER FARE TICKETS



Comfort check-in was launched across Germany in all ICE trains in 2018. The comfort check-in service is integrated into the DB Navigator app and can be used by all passengers with a digital ticket. Passengers use the comfort check-in service to let the train crew know that they are traveling with a valid ticket and are sitting in their reserved seat. As a result, their tickets do not need to be inspected.

DIGITAL SERVICE REPLACES TICKET INSPECTION IN ALL ICE TRAINS

PARTNERSHIP BETWEEN DB ARRIVA AND TICKETER



DB Arriva has joined forces with Ticketer to allow contactless payments on buses. Ticketer devices, which enable customers to pay through QR codes, mTickets, Apple Pay and Android Pay, started being installed in November 2018. The installation is expected to be completed in about 3,500 buses by summer 2019.

FACTS AND FIGURES FREIGHT TRANSPORT AND LOGISTICS

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, and is thus the number one in European rail freight transport.

> 255

**MILLION TONS OF FREIGHT CARRIED
IN RAIL FREIGHT 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.

1.3

**MILLION TONS OF
AIR FREIGHT**



> 106

**MILLION SHIPMENTS
IN LAND TRANSPORT**

2.2

MILLION TEU BY OCEAN FREIGHT

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

DB Schenker occupies top positions in the automotive, technology, consumer goods, trade fair forwarding, special transport and services sectors for major sporting events.

HIGHLIGHTS 2018

FREIGHT TRANSPORT AND LOGISTICS

FLEET

NEW DEVELOPMENT OF CAR TRANSPORT WAGON



DB Cargo developed the Laeffrs 561 wagon for the transport of passenger cars, which allows taller and heavier models to be transported across two decks, thereby making transport more cost-efficient. The car is part of the research project on innovative freight cars by the Federal Ministry of Transport and Digital Infrastructure (BMVI). The total project to procure the series vehicles currently includes 240 cars.

In order to have the short-term capacity to react to increases in volumes and structural changes, DB Cargo has decided to procure a total of 265 additional 80-foot Sggrs 742 container cars before the end of 2019.

NEW 80-FOOT CONTAINER CAR



NEW PROCUREMENT OF DOUBLE-POCKET CARS

DB Cargo put 17 more T3000 double-pocket cars in operation in 2018. The cars are being used for transporting semi-trailers, large containers and swap bodies and can transport three different sizes of trailer with the dedicated jack. Since 2018, the cars have also been fitted with a “loaded/empty” display.

DB Cargo is procuring new six-axle flat wagons of the type Samms 489.1 with high load capacity for transporting heavy semi-finished steel products, among other items. The cars are an important part of the value-added chain in steel manufacturing and are essential to securing transport between plants. Delivery of the new fleet comprises 225 cars in total, of which 18 are flat cars that were delivered in 2018.



NEW PROCUREMENT OF BOGIE FLAT CARS



MODERNIZATION OF COIL TRANSPORT CARS

The coil transport car of the type Sahimms 900.2 will be completely rebuilt and fitted, among other things, with a state-of-the-art tarpaulin covering. Modernization of all 430 cars is expected to be completed by 2020.



NEW PROCUREMENT OF COIL TRANSPORT CARS

In 2018, DB Cargo expanded its fleet by 45 coil transport cars of the type BA Shimms-ttu 728 for transporting moisture-sensitive flat-rolled steel products. The cars are characterised by movable tarpaulin covering and loading troughs. A total of 400 additional coil transport cars are expected to be delivered and put into operation by 2020.

FLEET

DB Schenker is conducting a pilot project in platooning, which is in cooperation with MAN and the Fresenius University of Applied Sciences and is funded by the BMVI. Platooning is used to enable two or more trucks to travel in close proximity to one another on the freeway using technical driving assistance and control systems. All of the vehicles driving in the platoon are connected to each other via an electronic drawbar and communicate with each other using car-to-car communication systems. The vehicle leading the platoon sets the speed and direction.

THE WORLD'S FIRST PRACTICAL DEPLOYMENT OF PLATOONING



DIGITALIZATION AND INNOVATION



EXPANDING LOGISTICS CAPACITIES IN AUSTRALIA

DB Schenker is expanding the network for perishable goods in Australia and is opening a new facility near Perth. The logistics facility is located conveniently close to the Fremantle harbor and airport and covers over 500m². The location of the facility ensures there is a continuous cold chain for storing highly perishable goods.

NETWORK



INNOVATION LAB OPENED IN TEXAS

Together with Cisco, DB Schenker opened an innovation lab in Houston, Texas/USA in 2018. This is where new logistics technologies will be tested and marketed to drive transformation through digitalization.



NEW ONLINE PLATFORM: CONNECT 4 LAND

DB Schenker's new online platform, connect 4 land, now enables customers in Europe, including Germany, Spain and France, to request and book general cargo transports throughout Europe directly online. The new platform is especially suited to smaller and medium-sized customers. Similar developments are being prepared for air and ocean freight.



FIRST ROLLOUT OF THE PROGLOVE BAR-CODE-SCANNING GLOVE

DB Schenker has been using the smart bar-code-scanning glove ProGlove since 2018 in its warehouse in Eching near Munich. ProGlove is a device to scan bar codes during the order-picking process. The scanner is attached to the back of the glove worn by employees in the warehouse. The employee first receives acknowledgment on the device when scanning a bar code and then information taken from the warehouse management system is displayed on a tablet.

FACTS AND FIGURES INFRASTRUCTURE

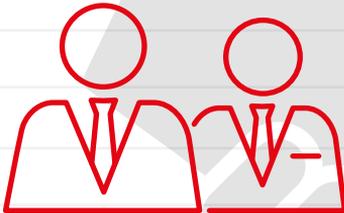
We are creating the conditions to cope with growing traffic flows in Europe. To accomplish this, we take care of the rail network, passenger stations and energy supply for train operating companies in Germany.

> 25,100

RAILWAY BRIDGES

440

**GROUP AND NON-GROUP
INFRASTRUCTURE CUSTOMERS**



DB Netze Track is Europe's number one rail infrastructure provider. More than one billion train-path kilometers are traveled each year on the tracks in Germany.



33,400

KM-LONG NETWORK

7,900

KM OF TRACTION CURRENT GRID

DB Netze Energy offers all of the conventional industry energy products in Germany in the fields of traction current and stationary energy.

>5,600

PASSENGER STATIONS

DB Netze Stations is the largest station operator in Europe. In addition to the core business – the development and operation of stations – it offers a variety of mobility-oriented services in and around stations.

HIGHLIGHTS 2018

INFRASTRUCTURE

DIGITALIZATION AND INNOVATION

NEW APP DB ACCESSIBLE



The new DB Accessible (DB Barrierefrei) app provides all information in audio and visual format throughout the journey and provides two main functions: to send customers important notifications and announcements regarding their travel schedule via text messages directly to their smartphone; and enable passengers to look up information about whether elevators and escalators are in operation so that they can plan ahead of time where they can not go because of technical faults and so can reach their destination via alternative routes. This means that the app primarily supports people with limited mobility and sensory impairments, but it is helpful for all passengers, too.



INTRODUCING THE PASSENGER INFORMATION OF THE FUTURE

Passenger information of the future is the largest software development project for DB Netze stations to date. IRIS+, the new IT system, will allow information from the passenger information platform – which is known as the “Single Point of Truth” for passenger information – to be processed centrally. Passenger information of the future can also be seen on existing displays at stations through its use of optimized layouts.

FIRST DIGITAL INTERLOCKING COMMENCES OPERATION



The first digital interlocking commenced operation in 2018 in Annaberg-Buchholz. The digital interlocking marks the beginning of a new and innovative generation of interlockings being implemented across Germany. What makes the new interlocking architecture distinctive is that the traffic controller's routing command to the switches, signals or track contacts are transferred digitally via network technology. This eliminates the need for individual connections that were previously required to communicate with individual parts of the signaling system using kilometers of cable bundles in some places.

DIGITALIZATION AND INNOVATION

INFRASTRUCTURE



In December 2018, the line between Knappenrode and the German/Polish border was recommissioned. Following commissioning and the timetable change, the line was used for local passenger rail transport and freight trains transitioning to the Polish rail network.

COMMISSIONING OF THE LINE BETWEEN KNAPPENRODE AND THE GERMAN/POLISH BORDER

OPENING OF THE TRAIN FORMATION YARD IN HALLE (SAALE)

The train formation yard in Halle (Saale), which can process up to 2,400 freight cars per day, celebrated its opening in June 2018 after four years of construction. One of the most state-of-the-art facilities in Europe now stands on the grounds of the old freight yard in Halle.



MAKEOVER FOR 30 S-BAHN (METRO) STATIONS

2018 saw the start of cosmetic improvements of 30 S-Bahn (metro) stations, which are used heavily but have been rather poorly rated in past customer surveys. We made the walls and windows in S-Bahn (metro) stations, including those in Hamburg, Berlin and Frankfurt, more colorful with art installations and new lighting systems. Care was taken during the design phase to ensure that every motif is unique and references the surrounding area. For example, the Berge-dorf station in Hamburg was decorated with maritime motifs and the Bornholmer Straße station in Berlin features photos recalling the fall of the Berlin wall. The artworks are intended to ensure that passengers feel comfortable in the S-Bahn (metro) stations.

MODERNIZING THE FRANKFURT S-BAHN (METRO) TUNNEL

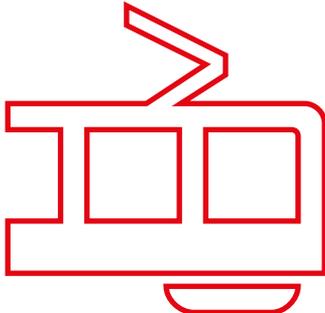
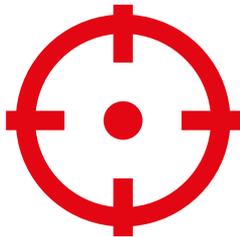
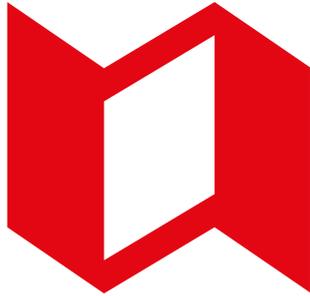
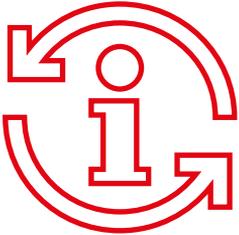
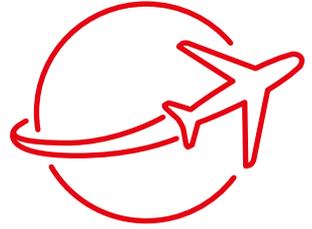
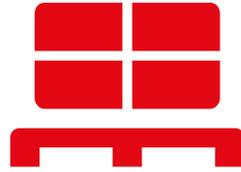
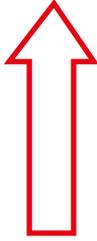
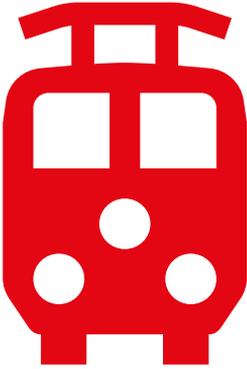
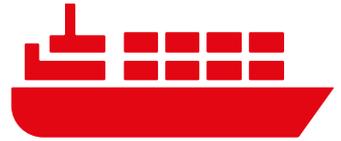
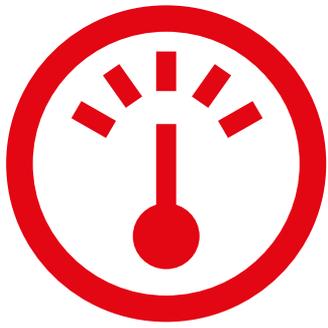
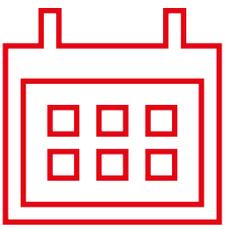
The Frankfurt S-Bahn (metro) tunnel is one of the most used sections of line in the German S-Bahn (metro) network. After more than three years of construction, the new electronic interlocking came into operation on August 6, 2018, covering the over 6 km long tunnel main line of the Rhein-Main S-Bahn (metro) below central Frankfurt. This replaced the 40-year-old interlocking for the City Tunnel.



COMMISSIONING OF THE PFORZHEIM TUNNEL

After about four years of construction, trains began operating in the new Pforzheim tunnel on September 10, 2018. This marked the timely commissioning of one of the biggest measures from the modernization and capital expenditure program in the existing Baden-Württemberg network. About € 100 million in total was invested in the construction of the 909m two-track tunnel.

INFRASTRUCTURE



IMPRINT

Edited by: Deutsche Bahn AG, Investor Relations, Berlin
 Design and typesetting: Studio Delhi, Mainz
 Proofreading: AdverTEXT, Düsseldorf
 Lithography: Koch Prepress GmbH, Wiesbaden
 Printing: W. Kohlhammer Druckerei GmbH + Co. KG, Stuttgart
 Photography and consulting: Max Lautenschläger, Berlin

PHOTO CREDITS

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As of: December 31, 2018

