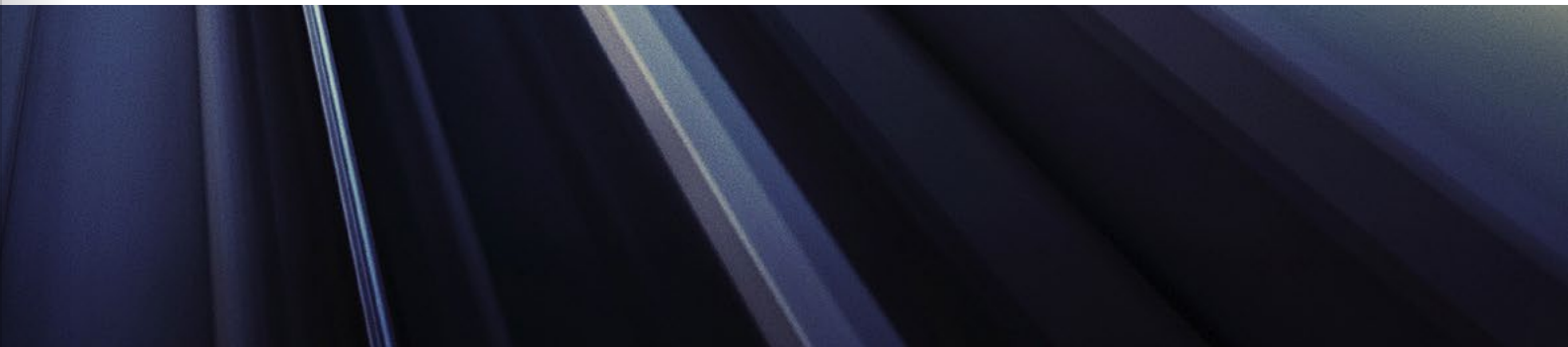




# **DB Engineering & Consulting**

Railways for the world of tomorrow.





# Our mission: **mobility for the world of tomorrow.**

In the minute it takes you to read this text, the world's population will rise by almost 160 people. This explosive growth poses new challenges for transportation planners and mobility providers all around the world. After all, more people means more traffic. Meanwhile, expectations of speed, safety and comfort are steadily increasing.

To better connect urban centers and prevent major cities from choking in traffic jams and smog, infrastructure and mobility services must adapt to this rapid pace of expansion. This is no easy task: it calls for innovative and sustainable solutions that move people and goods quickly from A to B – whether for short trips through densely populated megacities or for long-distance transportation.

These are exactly the kinds of solutions that we develop for our clients: we design and implement tailor-made rail transportation and mobility concepts that are up to the challenges of our time. As one of the world's leading engineering and consultancy firms, we are working right this second to shape the world of tomorrow.



**75% of the world's population**

will live in cities by 2050.



**23% of global CO<sub>2</sub> emissions**

come from transportation – and more than two-thirds of them from road traffic.



**300% of today's freight traffic**

level is predicted by 2050, according to international forecasts.





## 185 years of railway expertise

for tomorrow's mobility.



## More than 5,000 employees from 84 countries

will use their expertise and intercultural experience to make your project a success.

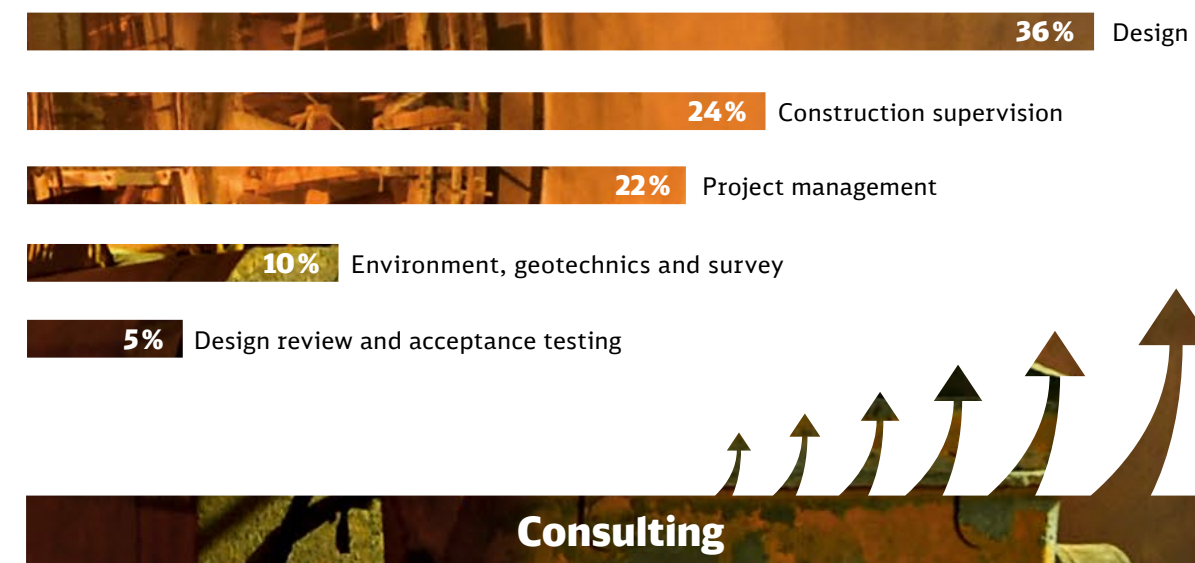
# Our experts: **masters at finding the best solutions.**

For us, it's not just about providing seamless mobility on a global scale; it's also about ensuring that your infrastructure projects run seamlessly on site. No matter the size or scale of your project, we can offer you a full range of consulting, design and implementation services throughout the entire project lifecycle.

At DB Engineering & Consulting, you can count on us to deliver what we promise: all-in-one service based on Deutsche Bahn's knowledge. We have more than 5,000 employees across the globe with decades of experience as specialists and generalists in the full range of engineering disciplines, ready to assist you with your projects. They offer a high level of technical quality, cost-efficiency and a focus on service, while still taking important environmental issues into account.

No matter what challenges you face – we will find the best solution. We always keep the goal in mind: to make your project a success.

## Our specialists



Percentage of specialists in each engineering field; 3 % other (as of December 2020)



# Engineering: **turning ideas into reality.**

The art of engineering has many different facets: from new construction to refurbishment to demolition – our experts plan your project from A to Z and ensure that implementation balances deadlines, costs and quality. We achieve this with innovative methods such as building information modeling (BIM).

## **Design**

We look after every step of the process for you: basic evaluation, preliminary design, final design, planning for building permit application, and construction drawings.

## **Project management and project control**

We plan, coordinate, review and document every step of your project, from time and budget management to taking care of quality and risks.

## **Implementation management and construction supervision**

During the implementation phase, our construction management team oversees the entire construction project. Our construction supervision assures quality down to the last detail.

## **Design review and acceptance testing for railway engineering equipment**

If it's tested and approved by us, it's safe – we have approximately 100 certified assessors.

## **Special services**

Our expert teams develop customized solutions for special projects in the fields of environmental planning, geotechnical engineering and surveying.



## Mobility & Logistics Consulting

From sustainable business strategies and optimized operation and maintenance concepts to modern training programs and groundbreaking topics such as smart mobility – our consulting portfolio is tailored to the complex challenges of tomorrow's mobility sector. Our experts develop innovative solutions for the successful future of your company.

## Digital Services & Solutions

With our combination of rail and IT expertise, we help you make the most of the opportunities offered by digitalization. Whether you need a complete transformation of your company or an individual solution for specific tasks – together we will lead your business into the digital age. Because intelligent data use increases the performance of your rail system, and that ensures lower costs, a higher system availability and fully upgraded operations.

## Consulting: **advice and practical help.**

Challenge accepted: Complex infrastructure and mobility projects spur our ambition. Liberalized transportation markets, new logistics value chains and changing technologies are just some of the areas where we will be at your side with the best advice. We have many years of acquired experience and expertise.

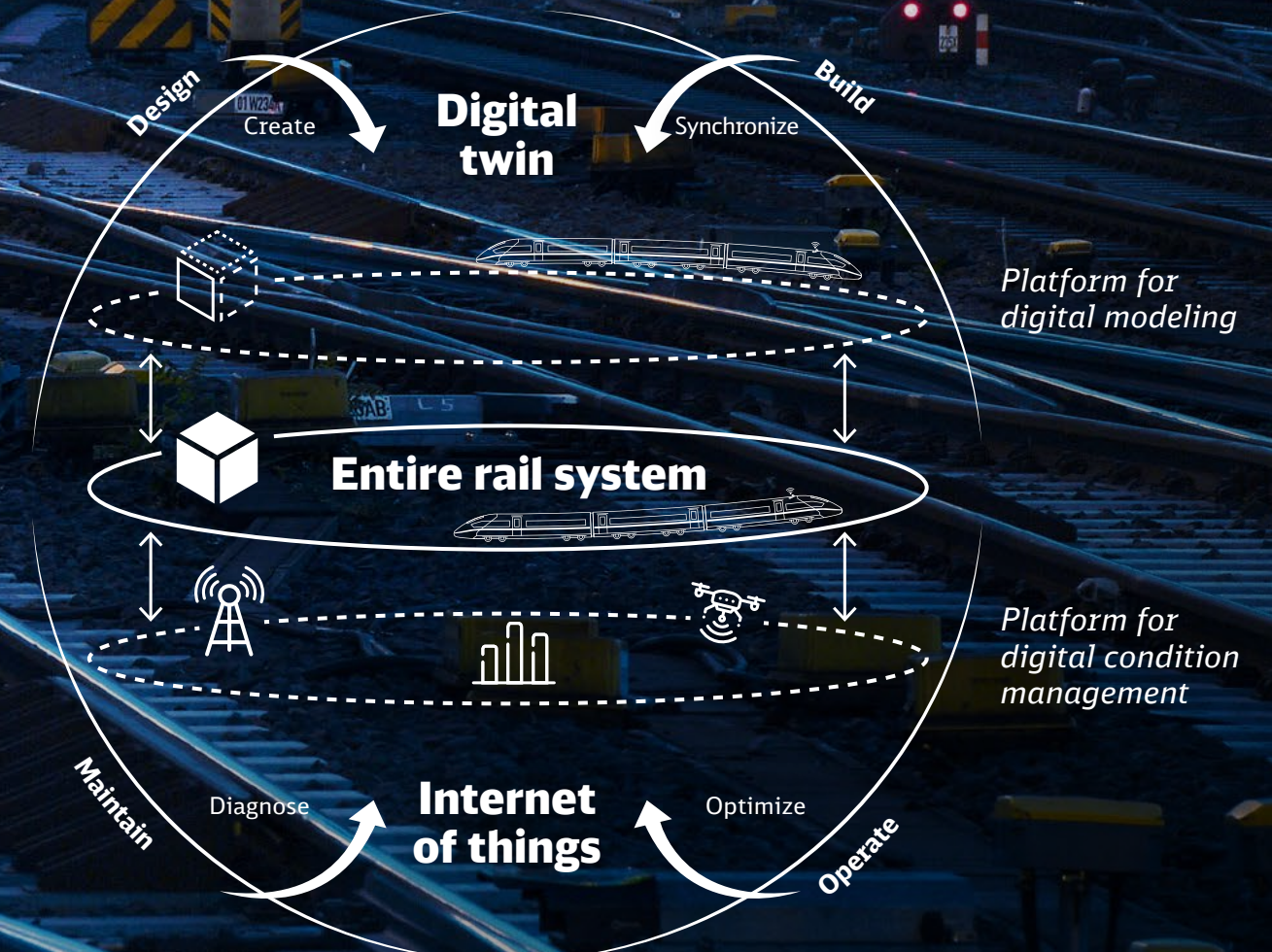


# We are pioneers: **not least** **in digitalization.**

Modern mobility is driven by modern technology. This in turn drives us to offer you optimal solutions based on state-of-the-art technology. We are constantly expanding our portfolio of services in lockstep with your needs. We know that innovative processes and construction methods help to increase quality and save costs in construction and operation.

3D laser scanning, ground-penetrating radar and multicopters – we deploy the latest technology to gather and process data. We use it to produce digital models of the real world.

Maintenance by remote diagnosis: we use smart data networking to identify infrastructure and vehicle maintenance needs before problems occur.







## Almost every construction project necessarily includes environmental impact design

because rail facilities, open spaces and embankments provide shelter for animal and plant species.



## Every year, we examine almost 37,000 samples

in our accredited environmental laboratory.

## Always in focus: **the environment.**

We examine the impact of our projects on flora and fauna. Where necessary, we introduce appropriate environmental restoration and compensation measures, for example rewilding streams and rivers or creating new biotopes. Furthermore, we ensure the professional and legally compliant handling of pollutants and waste during the construction project. By recycling, we reduce the usage of valuable resources.

For us, being on the cutting edge also means taking responsibility for the environment.





**Represented worldwide**  
on every continent

**Since 1966,**  
projects in more than 100 countries

**Berlin–Munich high-speed line (VDE 8),**  
Germany

**Metro projects in Mumbai, Bhopal, and Indore,**  
India

**Sydney Metro Northwest,**  
Australia

**Digital rail signaling system in Warnemünde,**  
Germany

**Modernization of Hanover main station,**  
Germany

**Haramain high-speed rail project: Mecca–Jeddah–Medina,**  
Saudi Arabia

**S-Bahn connection Gateway Gardens  
at Frankfurt/Main Airport,** Germany

**Freight line in the railroad network of Etihad Rail,**  
United Arab Emirates

**Rhein-Ruhr-Express (RRX),**  
Germany

**DB Rail Academy: training program,**  
for example in China, Dubai and Brazil

**Two-system light rail networks Karlsruhe and Heilbronn,**  
Germany

**Integrated Railway Project QIRP,**  
Qatar

**Upgraded line and new-build line Karlsruhe–Basel, section of  
the TEN freight corridor Rotterdam–Genoa,** Germany

**ICE depot Cologne-Nippes (first CO<sub>2</sub>-neutral DB depot),**  
Germany

**California High-Speed Rail,**  
USA

**Upgraded line Munich–Mühldorf–Freilassing,**  
Germany

**Redesign of metro vehicles,**  
Singapore

**Light rail projects in Tel Aviv,**  
Israel

**Stuttgart rail hub and new-build line  
Wendlingen–Ulm with airport connection,** Germany

**Capacity analysis at the Port of Santos,**  
Brazil

**Diagnostics and analytics platform DIANA for  
predictive maintenance at DB Netz,** Germany

**Rail Baltica project,**  
Lithuania/Latvia/Estonia

**Oslo Fjord City polycentric conurbation,**  
Norway



You can find out about many other projects online:  
[www.db-engineering-consulting.com/en/projects](http://www.db-engineering-consulting.com/en/projects)





# Our projects: **spanning the globe.**

We are shaping the world of tomorrow – and in the world of today you can find us wherever you need us. Face-to-face discussions and local expertise are just as important to a project's success as technical know-how.

We want to meet the specific requirements of every project. That's why our experts work at over 80 locations in Germany alone. You can count on us in other countries too: from Europe to the Americas, the Middle East and the Asia-Pacific region, we work for you on every continent around the globe.



## **On site globally**

Benefit from our broad range of services and see firsthand what we can do. Integrated expertise – worldwide.



## **At home in the future**

Our head office is on the EUREF Campus in Berlin, which is an innovative community of global players, start-ups, and research and teaching institutions that develop smart solutions for the cities of the future.





#### **Publishing details**

DB Engineering & Consulting GmbH  
Part of DB E.C.O. Group  
EUREF-Campus 14  
Torgauer Straße 12-15  
10829 Berlin  
Germany

[www.db-engineering-consulting.com](http://www.db-engineering-consulting.com)  
[www.db-eco.com](http://www.db-eco.com)

#### **Photography**

Getty Images (Cover, pp. 8-9, 14-16)  
iStock/No limit pictures (pp. 2-3)  
Jan Hennig (pp. 4-5)  
Max Lautenschläger (pp. 6-7, 10-11)  
Lothar Mantel (pp. 12-13)

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Last modified in March 2021



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