



NETZE

Capacity Management and Optimization on the German Network

RailFreight Connects

06.09.2023 | Dr.-Ing. Daniel Pöhle | Bremen

The Challenge – How to manage growth and re-establish punctuality on highly utilized core lines

That is why we cannot continue as before ...

Traffic volumes increase

Never before have more passengers and goods been carried on our network



Investment backlog

Underfunded infrastructure and outdated assets continue to reduce performance and usable capacity of the highly utilized network

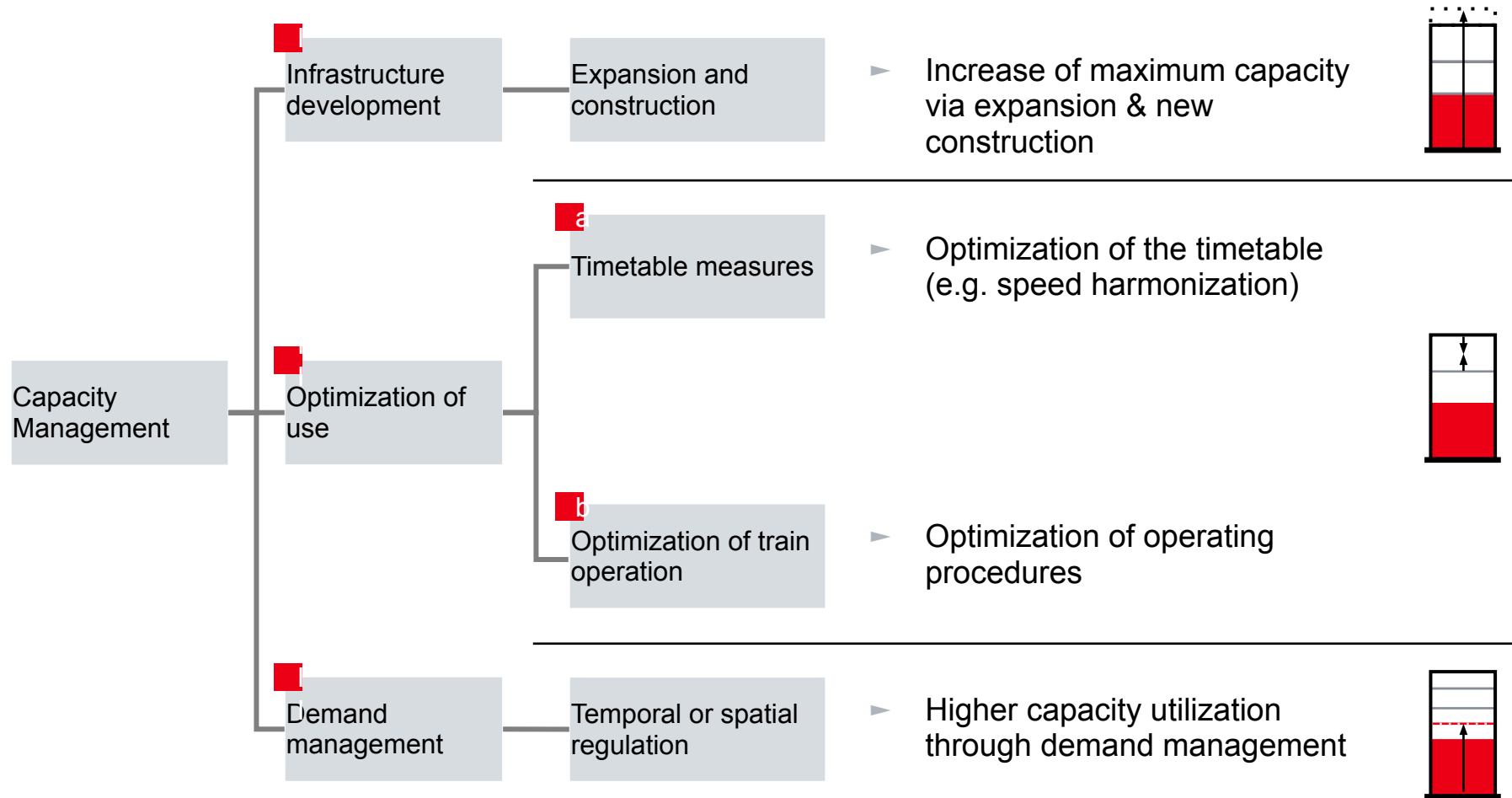
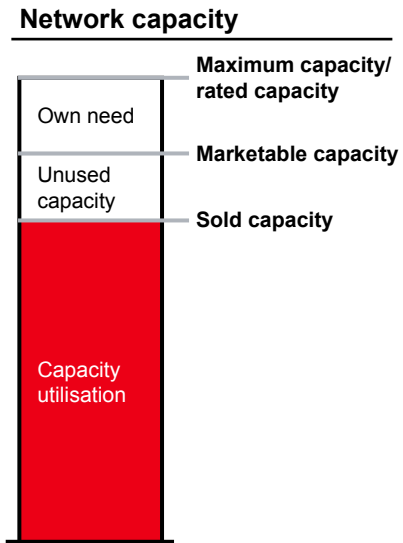


Punctuality too low

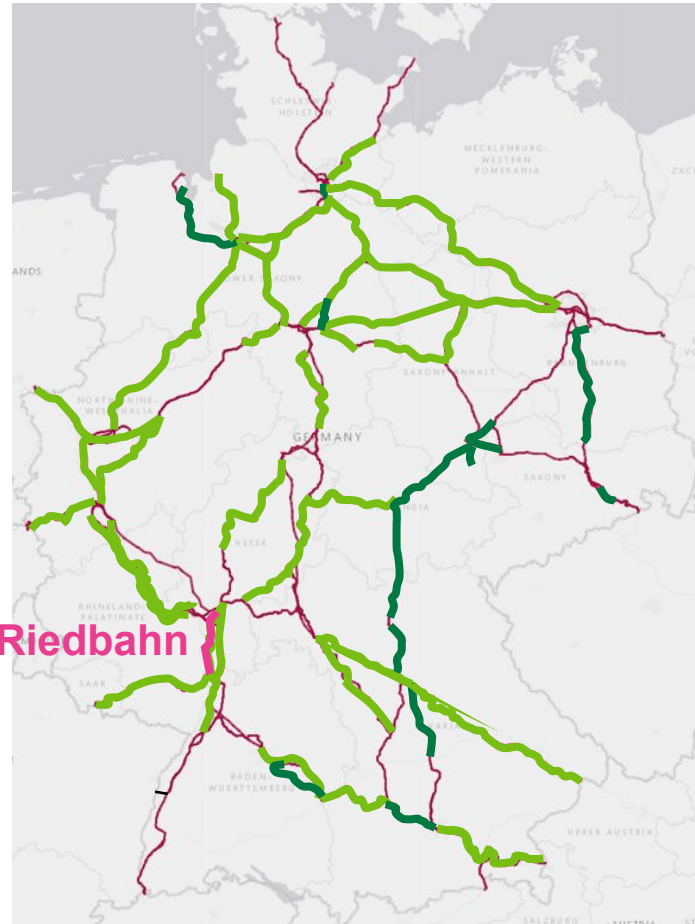
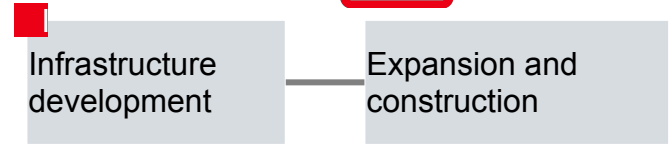
Quality problems are already clearly noticeable with punctuality levels around 60%



Influencing aspects for capacity management

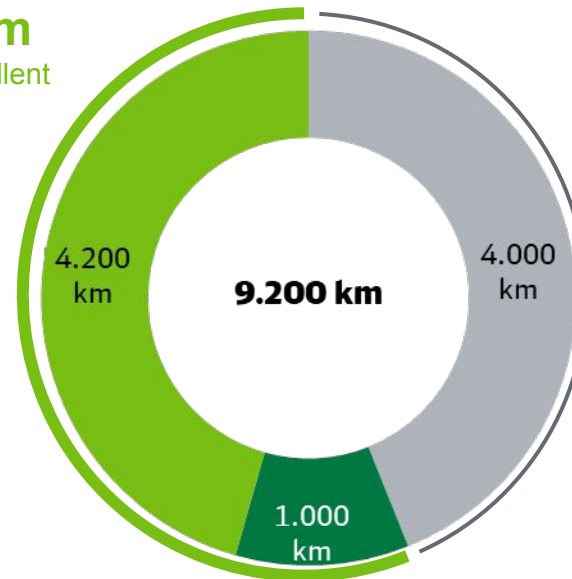


To achieve the High Performance Network will be a general renovation of 4.200 km resulting in substantial benefits



High Performance Network 2030 [in line km]

Improvement of
~5.000 km
to good or excellent
quality



■ General renovation
 ■ Condition grade < 2,5
 ■ Focused asset renewals and maintenance

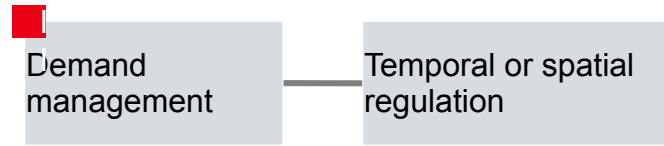
» **Fault-resistant assets** ensure a **reliable infrastructure**. Customers achieve an increased **punctuality**

» **Optimal equipment and layout standards** increase the **performance** of infrastructure

» The **customer experience** will be improved through **attractive and barrier-free stations**

» **Timetable based development of the infrastructure** – Additional projects to increase the capacity

Use of diesel locomotives for diversions over non-electrified lines to increase the usable capacity for freight trains



Idea

DB Netz provides diesel locomotives incl. train drivers as part of the general renovation work, which can be used to reroute rail freight trains over non-electrified lines. In addition, these diesel locomotives can be used at short notice in the event of major disruptions or accidents.



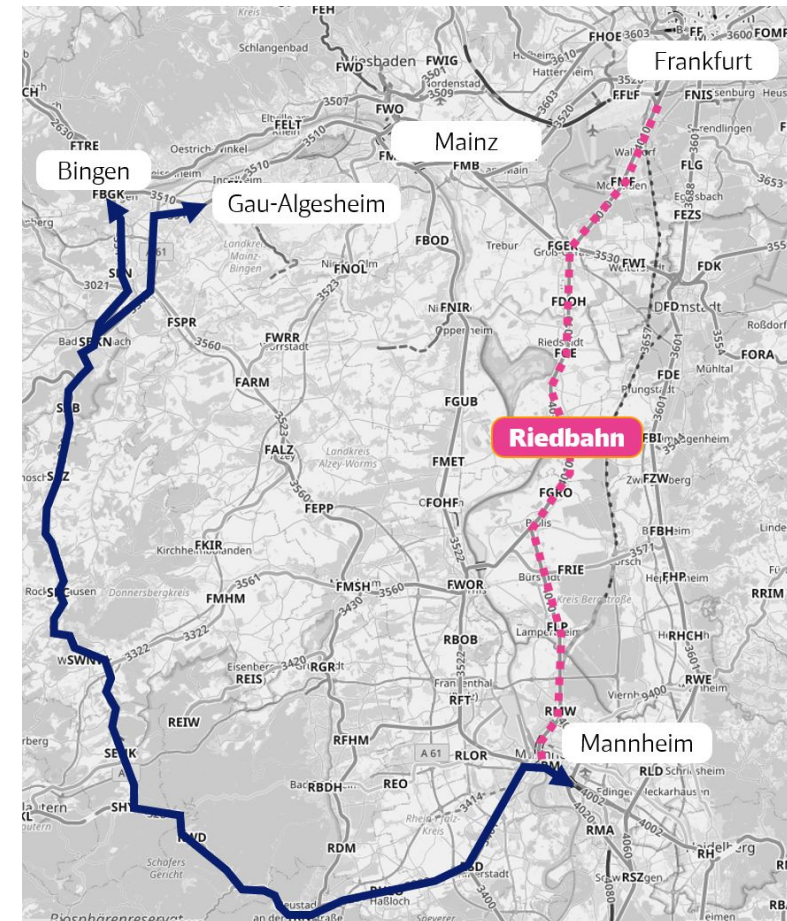
Benefit

Additional capacities can be made available for the handling of rail freight traffic. This is done both in the context of construction site planning and in the handling of operations.

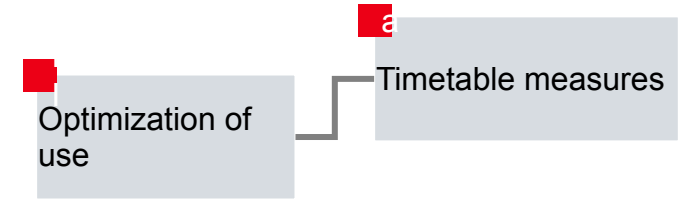
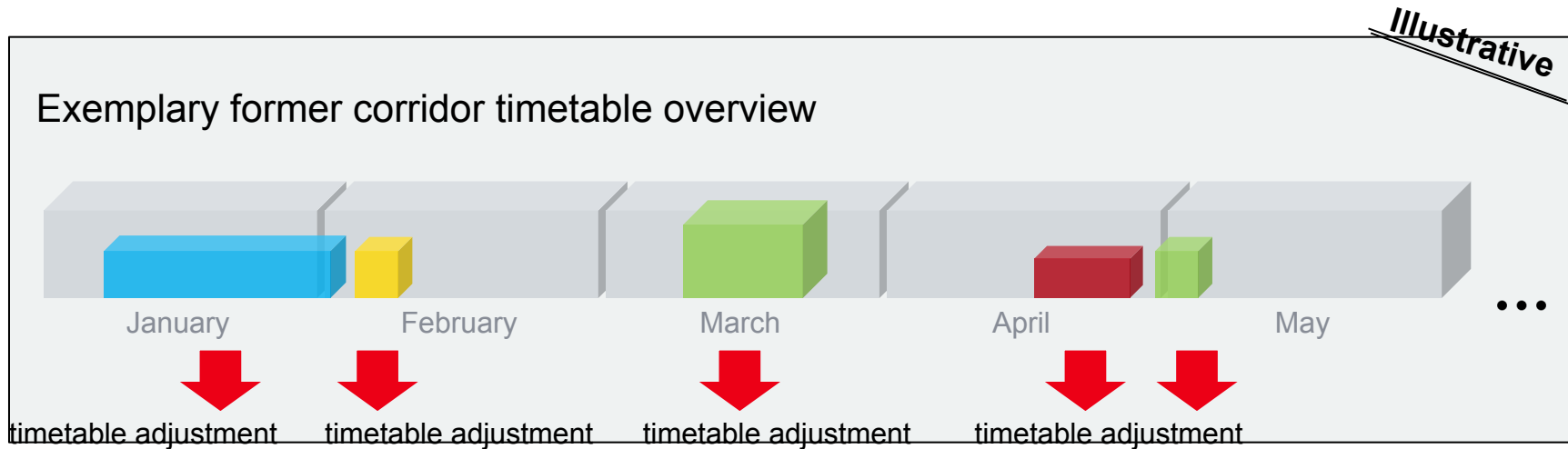


Timeline

First implementation in 2024 for the 5-month closure of the Frankfurt - Mannheim line.



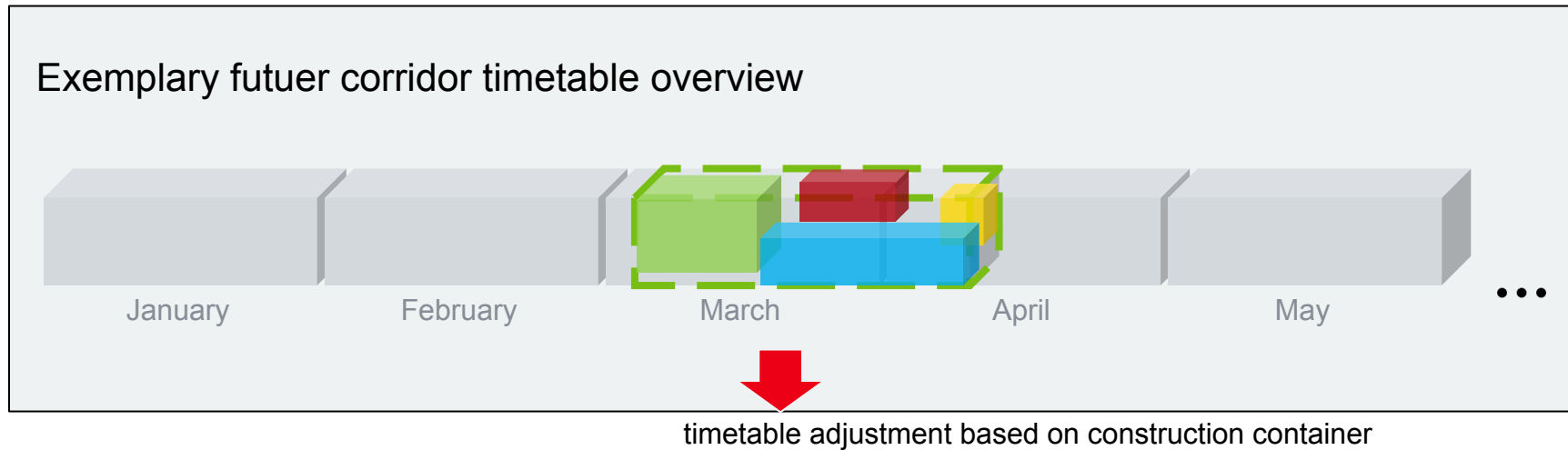
Corridors will be planned with regular, demand-oriented construction container for bundled construction measures



Away from individual

Construction measures

- Short-term
- Isolated
- Small-scale planning



Towards ...

Construction Containers

- pre-plannend and secured closure window
- Taken into account in the timetable

DB Netz AG has developed a new concept for holding capacity reserves for GeIV (occasional traffic) and consulted with the market

Management Summary

Initial situation

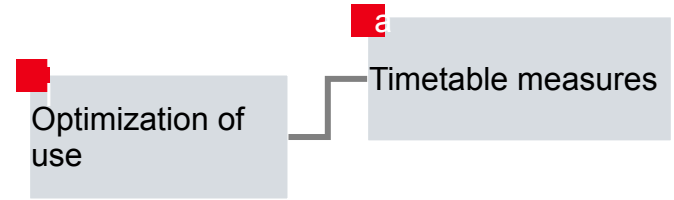


- **Section 56 (3) of the German Railway Regulation Act (ERegG) stipulates that the track infrastructure operator must check whether capacity reserves for occasional traffic are to be kept available within the annual timetable**

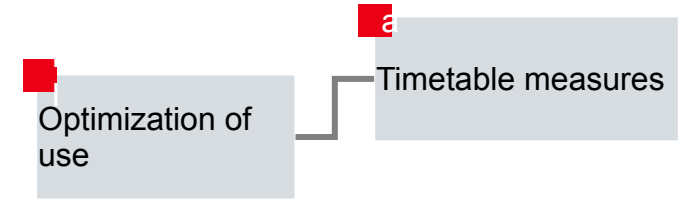
Solution approach



- Solution concept developed in **three steps** and presented at **market consultation** on 26 January 2023
- 1. **Determination of the need** in the ad hoc traffic (lines and amount of capacity)
- 2. **The capacities planned for the provision of occasional services in the working timetable 2024** have been **published** on the website since 02.03.2023
- 3. **Maintaining these capacity reserves in the annual timetable 2024**



Click&Ride for ad hoc train path requests optimizes the available capacity for freight trains



- Click&Ride is the new way to order train paths for rail freight transport quickly and easily **from 21 days and up to 45 minutes before departure**
- Train path offer within a **maximum of 3 minutes** instead of the previous maximum of 48 hours
- Applications: **Standard goods train** for spontaneous drives, **dangerous goods, container trains or transfers of traction units or maintenance vehicles**
- Full operation of Click&Ride since the timetable change in December 2019, about 1.000.000 **train paths** planned and sold fully automatically
- Degree of automation of 45-60% of incoming orders in the intra-year timetable

An aerial photograph of a city, likely Hamburg, Germany, featuring a prominent river (the Binnenalster) and a dense urban landscape. The image is overlaid with a semi-transparent red filter. In the center, the logo for DB Netz is displayed. The letters 'DB' are enclosed in a red rounded square, and the word 'NETZE' is written in white, bold, sans-serif capital letters to the right of the square.

DB NETZE