



European  
Union



## Crecimiento transporte ferroviario de carga *Que barreras levantar?*

Name

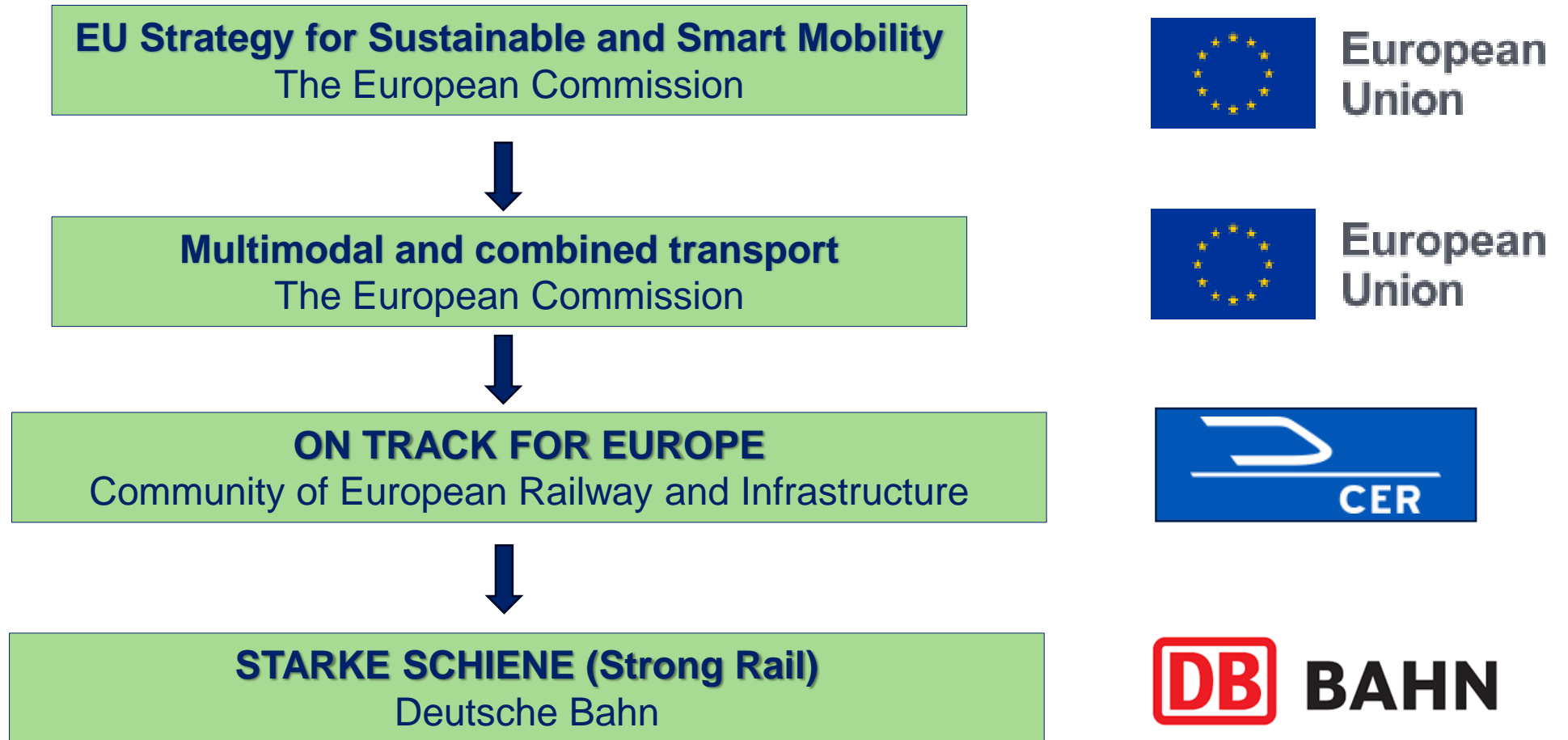
**CPI** CONSEJO POLÍTICAS  
DE INFRAESTRUCTURA

2/09/2024 | Pablo Bowen Bobenrieth, Hamburg, Germany



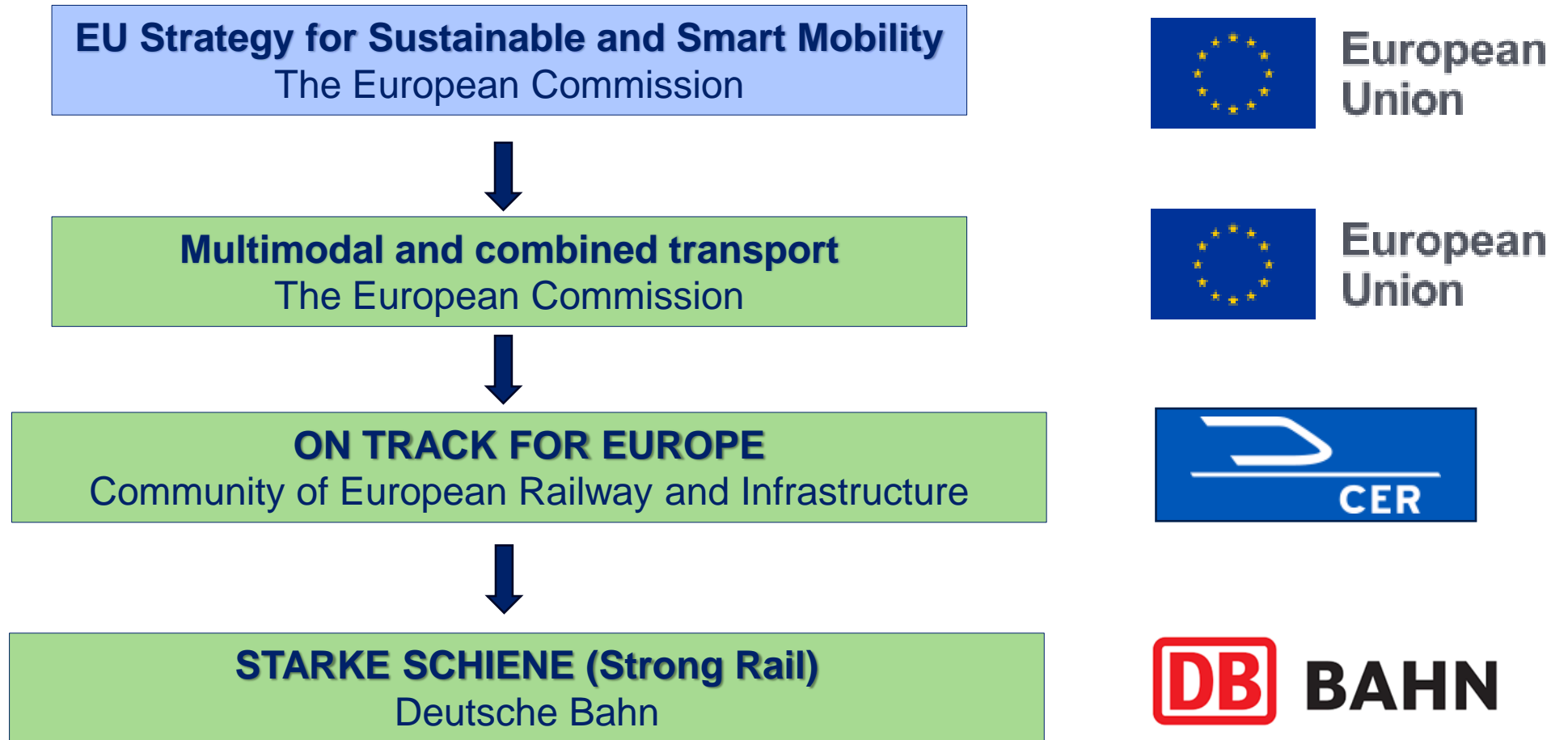
# European Union - The Big Picture, top-down

Sustainable and Smart Mobility Strategy – putting European transport on track for the future



# EU Strategy for Sustainable and Smart Mobility

Sustainable and Smart Mobility Strategy – putting European transport on track for the future



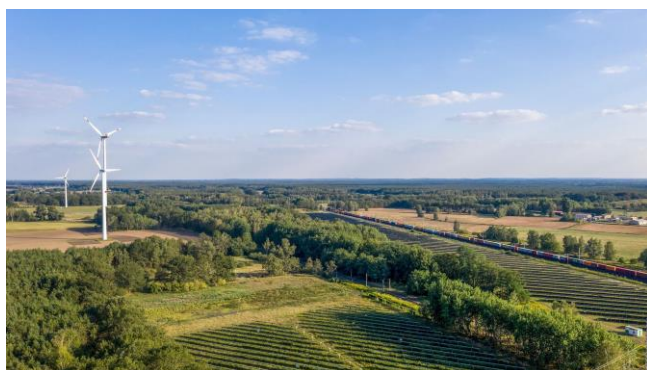


# EU Strategy for Sustainable and Smart Mobility

Sustainable and Smart Mobility Strategy – putting European transport on track for the future

1. **Mobility and transport matters to us all.** From daily commuting to work, visiting family and friends, tourism, to the proper functioning of global supply chains for the goods in our shops and for our industrial production, mobility is an enabler of our economic and social life. Free movement of people and goods across its internal borders is a fundamental freedom of the European Union (EU) and its single market. **Travelling in the EU has led to greater cohesion and a strengthened European identity.** As the second-largest area of expenditure for European households, the **transport sector contributes 5% to European GDP** and directly employs around 10 million workers.

3. **By far, the most serious challenge facing the transport sector is to significantly reduce its emissions and become more sustainable.** At the same time, this transformation offers great opportunities for better quality of life, and for European industry across the value chains to modernise, create high-quality jobs, develop new products and services, strengthen competitiveness and pursue global leadership as other markets are moving fast towards zero-emission mobility. Given its high proportion of total EU greenhouse gas emissions, the EU's goal of at least -55% greenhouse gas reduction target by 2030 and of climate neutrality by 2050 will be reached, only by introducing more ambitious policies to reduce transport's reliance on fossil fuels without delay and in synergy with zero pollution efforts. **The success of the European Green Deal depends on our ability to make the transport system as a whole sustainable.**







# EU Strategy for Sustainable and Smart Mobility

Sustainable and Smart Mobility Strategy – putting European transport on track for the future

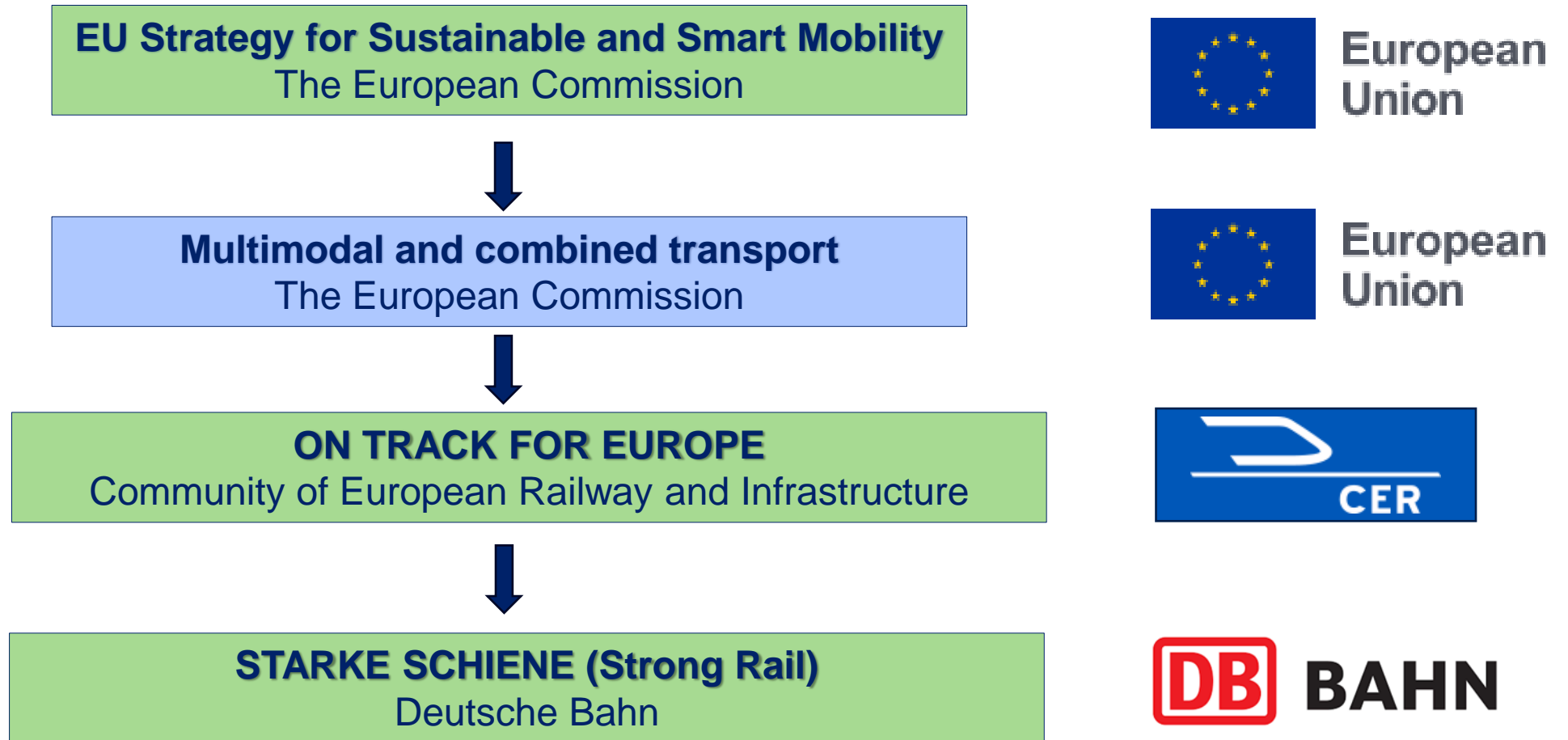
8. **This evolution should leave nobody behind:** it is crucial that mobility is available and affordable for all, that rural and remote regions are better connected, accessible for persons with reduced mobility and persons with disabilities, and that the sector offers good social conditions, reskilling opportunities, and provides attractive jobs. **The European Pillar of Social Rights is the European compass to make sure that the green and digital transitions are socially fair and just.**

12. **All transport modes are indispensable for our transport system and this is why they must all become more sustainable.** As the first pillar of our approach, we must boost the uptake of low- and zero-emission vehicles as well as renewable and low-carbon fuels for road, waterborne, air and rail transport, without further delay. We must support research and innovation (R&I) on competitive, sustainable and circular products and services, ensure that the right vehicles and fuels are supplied by the industry, **put in place the necessary infrastructure, and incentivise demand by end-users.** This is essential to reach our 2030 and 2050 climate targets as well as zero pollution ambition and to enable European companies to remain industrial leaders globally. Maintaining technology-neutrality across all modes is key, but this should not lead to inaction on eliminating fossil fuel-based solutions.



# Multimodal and combined transport

Sustainable and Smart Mobility Strategy – putting European transport on track for the future





# Multimodal and combined transport

European Commission

The negative consequences of transport such as pollution, climate change, noise, congestion and accidents pose problems to the economy, health and well-being of European citizens. **Freight transport continues to grow** and road freight transport, in particular, is projected to increase by around 40% by 2030 and by little over 80% by 2050. The EU transport policy aims therefore at **reducing road transport towards less polluting and more energy efficient modes of transport.**

Four types of actions support greater use of multimodal solutions.

- **The internalisation of external costs in all modes of transport**, with a view to send appropriate pricing signals to users, operators and investors. The social and environmental **costs of transport should be paid in line with the polluter pays principle.**
- **More targeted investments into physical infrastructure**, aimed at **better interconnections between the single modal** networks.
- **Better use of information** (on traffic, capacities, availability of infrastructure, cargo and vehicle positioning).
- **Direct support for intermodal transport**, as provided by the Combined Transport Directive (Council Directive 92/106/EEC), which aims to increase the competitiveness of the combined transport (defined as intermodal transport with a strictly limited road leg). The **EU also provides financial support to multimodal/intermodal transport .**



# Multimodal and combined transport

## European Comision

The Combined Transport Directive (92/106/EEC) is one of the key EU legal instruments that directly aim at **reducing the negative externalities of freight transport**, such as CO<sub>2</sub> and other emissions, congestion, noise and accidents, by supporting a shift from long-distance road transport to rail, inland waterways and maritime transport.

- **Road transport is responsible for the majority of negative externalities in transport** in the EU, both because it is by far the most common mode of transport (74.4% of intra-EU inland transport and 53.3% of all intra-EU transport in 2020), and because it **today causes more externalities per tonne kilometre of freight transport than rail**, inland waterways or short sea shipping.
- **A shift from road-only transport to intermodal transport would help to reduce the negative externalities** of transport, while still ensuring the flexibility needed for freight services to reach every point in EU thanks to road feeder legs between the terminal and place of loading/unloading.
- **However, intermodal transport is often unable to compete with road-only transport on medium and shorter distances** due to administrative hurdles, transshipment costs, and an incomplete internalisation of external costs. Therefore, the Combined Transport Directive creates a support **framework to increase the competitiveness of intermodal and combined transport and thereby promote a shift away from road-only transport.**





# Multimodal and combined transport

European Commission

**The proposal provides a support framework for intermodal and combined transport operations.**

Intermodal transport is a type of multimodal freight transport, in which goods are carried within a closed loading unit such as container, swap-body or semi-trailer, and the closed loading unit is transhipped between different transport modes without the goods themselves being handled.

**Combined transport is a type of *intermodal transport* that meets specific conditions** set out in this Directive; in particular it **concerns operations that reduce by 40% the negative externalities compared to road-only operations.** This essentially means operations for which the major part of a transport operation is carried out by rail, inland waterways or sea (short sea shipping), while the much shorter initial and final road legs act as feeders for the loading units between and place of loading/unloading and the terminal.

The proposal includes three provisions for promoting **intermodal transport in general**:

- It reiterates that similarly to unimodal transport; **all intermodal transport is free of authorisations and quotas.**
- It establishes a new obligation on Member States to adopt a national policy framework for **facilitating the uptake of intermodal transport.**
- It **establishes a transparency requirement for intermodal transshipment terminals** to ensure that potential customers can easily find out which services and facilities are available.



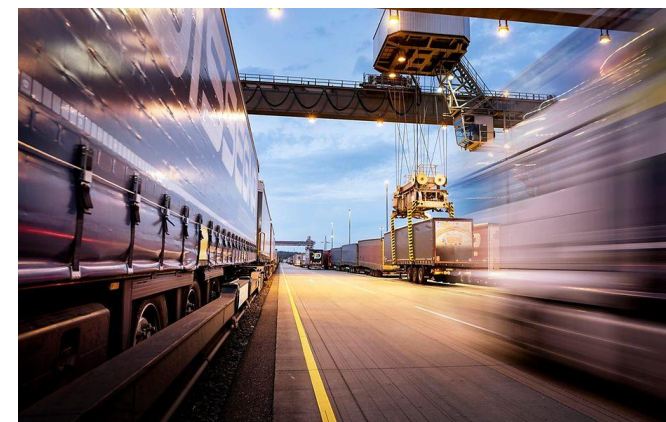
# Multimodal and combined transport

European Commission

For the **combined transport** specifically, the proposal includes two additional support measures:

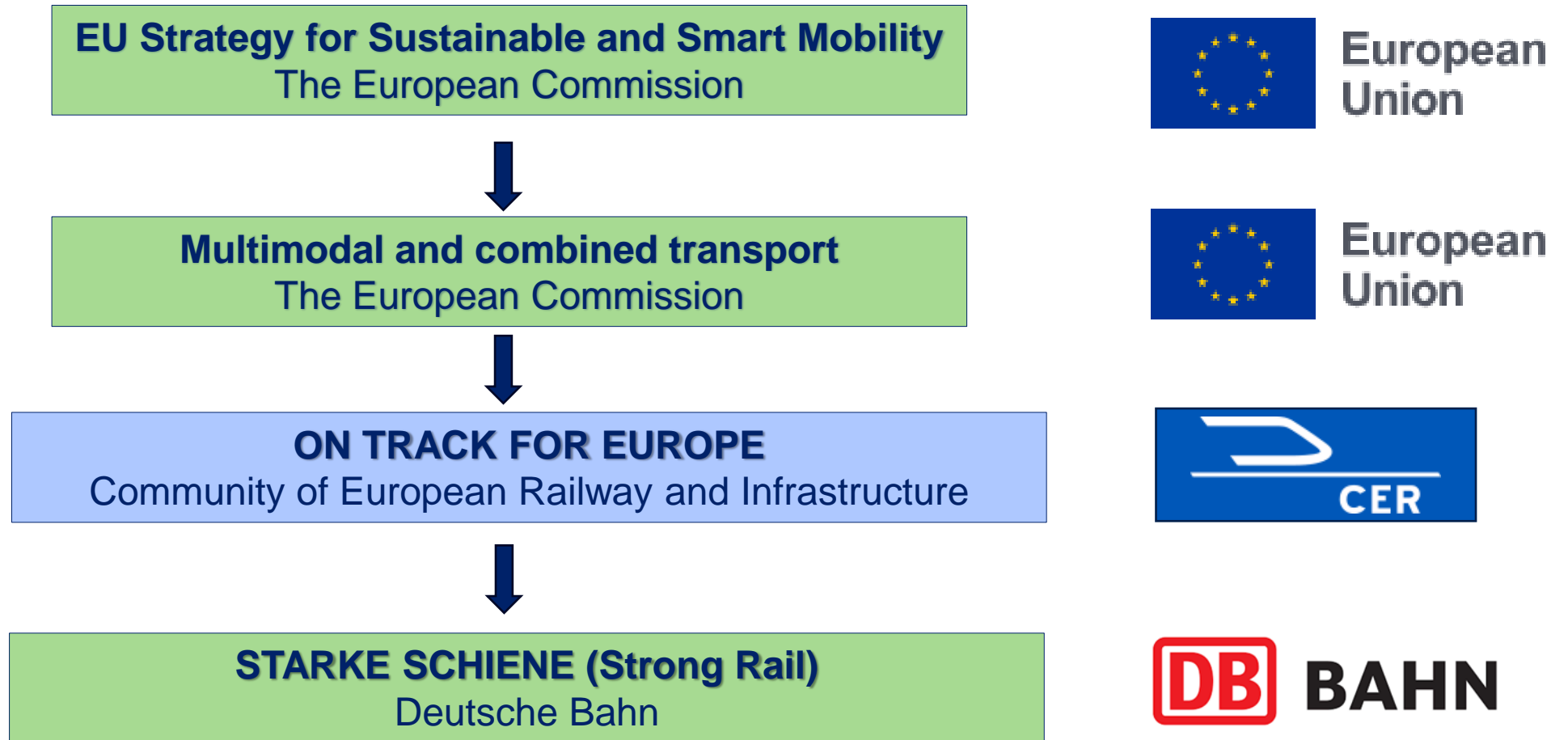
- It **establishes a new EU-wide exemption from weekend, holiday and night driving bans** for the short road legs of combined transport to ensure better use of terminal and non-road infrastructure capacity.
- It establishes a target for Member States **to reduce the average door-to-door cost of combined transport operations**: a reduction by at least 10% within 7 years.

All existing EU-wide regulatory measures that are today applicable to combined transport will also remain in force. This includes the ban on quotas and authorisations, equivalent treatment of international combined transport with international road transport as regards use of non-resident hauliers, special definition of own-account transport on road legs, and a ban on price regulation.



# On Track for Europe

Sustainable and Smart Mobility Strategy – putting European transport on track for the future



# On Track for Europe

Why Railways are the Right Choice for the Future of Europe



**1**

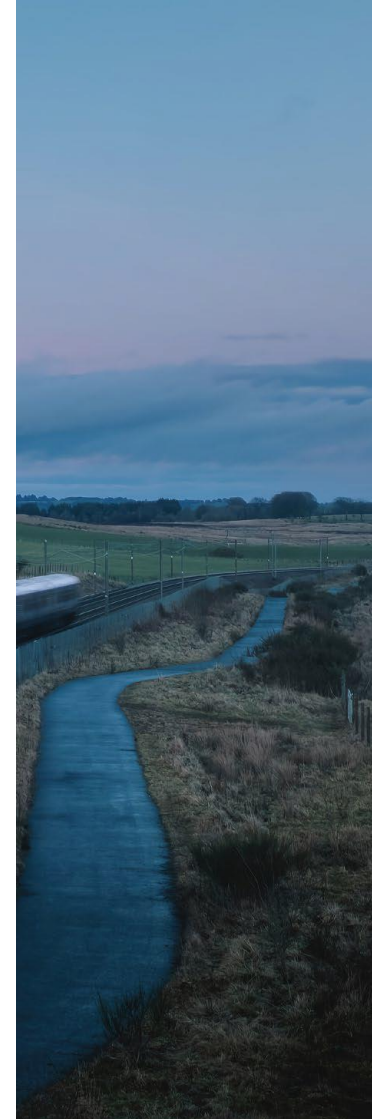
Railways are by far the **most sustainable mode of transport**;

**2**

Railways' energy efficiency will **help decrease Europe's energy consumption**, increase Europe's share of renewable energy sources, and increase Europe's independence from non-EU energy sources;

**3**

Railways are **efficient investors** and contribute to the creation of sustainable economic ecosystems.



# On Track for Europe

## Why Railways are the Right Choice for the Future of Europe



### A. Ensuring fair competition between modes

**Today the regulatory framework is not fair, and past attempts to redress it have failed.** The conditions and pricing to access infrastructure differ from rail to road; energy taxation is uneven and favours aviation in particular; VAT rules too are applied unfairly; **social conditions also differ thereby allowing social dumping practices in the road sector.** Much remains to be done in this field and concrete policy actions must be priorities for the next legislature.

### B. Ensuring adequate financing of railways

**Railways need fair, long-term, comprehensive financing.** To meet the huge infrastructure investment needs of the sector, rail will need a bigger CEF budget line in a scaled-up MFF, where ETS revenues should be earmarked and EU Green Bonds made standard for supplementary sustainable projects if new European debt is issued to finance the next MFF. Multiannual Contracts between governments and infrastructure managers must be drawn up and applied correctly and for a duration of no less than five years. In addition, **private resources may be attracted complementarily** in certain Member States thanks to the tools provided by the EU Strategy on Sustainable Finance. At a broader level, European Semester recommendations will have to affirmatively promote the green transition, coupling macroeconomic stability with the prioritisation of sustainable investments.



# On Track for Europe

## Why Railways are the Right Choice for the Future of Europe



### **C. Digitalising rail services and ensuring the deployment of rail's key enablers: ERTMS (and FRMCS), DAC, DCM**

Accomplishing the digital transition means for rail to deploy its enabling technologies within the shortest possible delay. ERTMS, the Future Railway Mobile Communication System (FRMCS), Digital Capacity Management (DCM) and Digital Automatic Coupling (DAC) in freight are all potential game changers. A new governance should be designed to coordinate ERTMS, DAC and FRMCS investments & deployment to finally **unlock the benefits of these key technologies, including better data exchange, optimised capacity and ultimately more trains**, also cross-border.

### **D. Recognising the need for to a new approach to market and competition policies**

EU market and competition policies must better take into account EU climate objectives and in fact be re-designed to facilitate their achievement. For example **State aid rules should be fit to ensure support for Single Wagon Load and for the technologies that are key to the future development of the rail system**. At the same time, the creation of a Sovereignty Fund could be a way to re-balance the spending capabilities of Member States.

# On Track for Europe

Why Railways are the Right Choice for the Future of Europe



# 1

Better passenger services for all

# 2

More digital rail freight logistics integrated with other modes

# 3

A higher capacity infrastructure



Modal shift must be at the centre of EU policy to decarbonise transport, and the measure of our ambitions is matched by our commitment to contribute actively to the EU policymaking of the next years.

# On Track for Europe

## Why Railways are the Right Choice for the Future of Europe



Rail freight traffic in Europe must double by 2050 and achieve a modal share of

**30%** at 2030

- Rail freight capacity will be **boosted by the cooperative efforts** of the infrastructure managers and the other actors, and through the wide deployment of ERTMS and **new technologies such as Digital Automatic Coupling (DAC), Digital Capacity Management (DCM) and digital rail freight operations**, which if combined can increase the capacity on existing rail infrastructure by more than 30%.
- **Rail freight companies will have to be involved by local authorities in the processes of urban and regional mobility planning.** Rail freight services will need to have access to industrial hubs and transshipment facilities equipped with the adequate technologies required to allow for efficient multimodal traffic. **Additional terminals and marshalling yards will have to be built to handle volume increases.**
- A major barrier to shifting from road to rail today is the high share of non-craneable equipment. Road operators often refrain from the extra cost of making loading units craneable and while several technologies exist to allow horizontal loading of non-craneable units, they are still more costly and their deployment is so far limited. **Craneability must therefore become obligatory for new semi-trailers via appropriate policy initiatives at EU level.**

# On Track for Europe

Why Railways are the Right Choice for the Future of Europe



# 1

Rail transport is ready to complete Europe's green transition

# 2

Railways provide resilience to the EU society and the economy

# 3

Rail investments contribute to creating greener and more digital economic ecosystems



# On Track for Europe

Why Railways are the Right Choice for the Future of Europe



In total,

**81.6%**

of rail train-kilometres in 2020 were run using electric propulsion

**57%**

of the total rail network in the EU is electrified

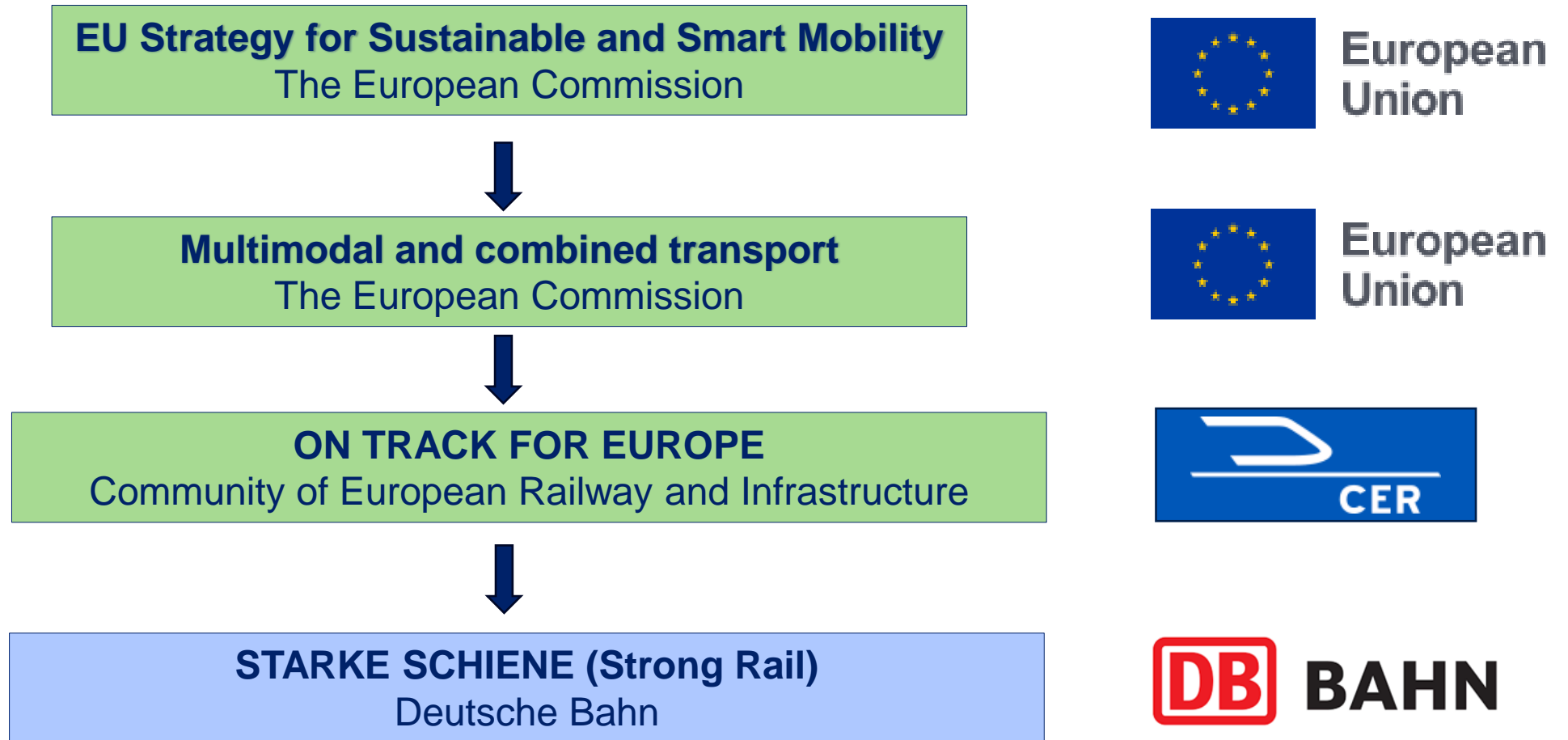
This means that railways are already prepared to provide their services by using only energy from renewable sources, thus delivering carbon-free services for freight and passengers.



# STARKE SCHIENE



Sustainable and Smart Mobility Strategy – putting European transport on track for the future



# Germany needs a strong rail system

## Rail travel is active climate protection



Deutsche Bahn will be running on 100% green electricity as early as 2038

## More train paths, more trains, more employees



Recruitment of 100,000 employees



Expansion of the long-distance fleet to 600 trains (+100% capacity)



Expansion and digitalization of infrastructure (+30% capacity in the network)



Station capacity doubled for up to 40 million guests a day



Germany needs a strong rail system

More connections over 30 major cities are linked every 30 minutes

## .... for more traffic on the railways



Doubling the number of long-distance passengers to 260 million



Plus 1 billion passengers on local transport



Increase in freight transport performance by 70%

# STARKE SCHIENE

Germany needs Strong Rail



- Deutsche Bahn is pursuing an endeavor of fundamental importance – **for the climate, for people, for the economy and for Europe**: an endeavor to shift more traffic to rail. And DB's overarching strategy, Strong Rail, will lay the foundation we need to be successful in that endeavor.
- In light of climate change and growing traffic volumes, rail will become increasingly important in the coming years. If we want to limit global warming, **we will need to shift traffic to climate-friendly rail on a massive scale.**
- **We will also need to find ways to handle growing traffic volumes in Germany.** The average car driver in Germany already spends more than 120 hours a year sitting in traffic. If nothing is done to shift traffic to rail, the situation in general and quality of life in particular will worsen, especially in high-population areas.



~13 million  
fewer truck journeys  
per year on German  
roads

# STARKE SCHIENE

Increase freight transport



- Today, 60% of DB Cargo's transport service in Germany is cross-border or transit traffic.
- **As trade volumes rise, freight transport will also grow. The increase is expected to reach more than 20% by 2030, resulting in volumes that will not be feasible for road traffic.** In light of these developments, rail freight transport in particular will become increasingly important. Smooth freight transport across European borders is vital to the German and European economy. And rail has more to offer, too: it brings people together across Europe and is thus an important factor in communication and collaboration.

**Deutsche Bahn will live up to its responsibility and strengthen rail in Germany: for the climate,** To reduce carbon emissions by 10.5 million metric tons each year by shifting traffic to rail

- **for people,** To double patronage in long distance passenger transport, and reduce the number of car trips in Germany by 5 million and domestic flights by 14,000 every day
- **for the economy,** To raise the market share of rail freight transport from 18% to 25% – the equivalent of 13 million fewer truck trips per year in Germany
- **for Europe,** To achieve a connected Europe by fostering a strong rail network





### More routes

- Rail is increasingly stretched to the limit. Currently, 5% of our network faces traffic congestion. That may not sound like much, but it has ramifications for 70% of our long distance passenger kilometers. **Our objective is to create an infrastructure system that can handle at least 30% more capacity.**
- To this end, Deutsche Bahn, **with the support of the German government**, will be investing on a major scale to build new lines, upgrade existing lines and hubs, **and raise the number of rail freight terminals.**
- **Digital rail operations will also help to raise capacity.** The Digital Rail for Germany program will be the key to success here: over the coming 20 years, we will introduce the European Train Control System (ETCS) and digital signaling technology across the board, reducing disruptions and enabling trains to run faster and closer together.
- **These efforts will also involve improving workflows.** Consolidating construction work to limit its impact on rail service, and dovetailing train speed profiles to enable more trains to run at once, are just two examples that will have a major impact.





# STARKE SCHIENE

More trains, locomotives, sensors



## More trains

- DB's vehicle fleet is also stretched to the limit. To improve the situation, **we will make considerable additional investments in new rolling stock**, with 120 new trains for long distance transport, **300 new locomotives for rail freight transport**, and expansions to our regional transport fleet.
- In addition, we will modernize some 1,000 existing vehicles, enabling them to transport up to 12% more passengers. Taken together, these efforts will raise seating capacity in passenger transport by up to 100%. To manage the maintenance of a growing fleet, we will **upgrade our depots and integrate 3D printing, smart diagnostics systems, robotics and other digital tools into our portfolio.**

At DB Cargo, for example, we are **equipping 68,000 freight cars with smart sensors to predict malfunctions.** The aim is both to **reduce the time trains spend at depots and to raise repair rates.**



# STARKE SCHIENE

Employees, training, talent acquisition



## Employees

- **The people out there on the front lines who operate, manage and repair our network and trains – are key to successful operations.** Between now and 2030, DB will lose roughly half its employees, in large part due to retirements. In 2018 alone, DB hired a total of 21,000 new employees, and we will be hiring an additional 100,000 across all our business segments in the years to come.
- And hiring does not stop at recruitment: **new employees also need to be trained**, and we need to foster employee retention for the long term. To prevent staff shortages, particularly in areas critical to successful rail service, we will take a targeted approach to planning staffing needs.
- **We will continue our talent acquisition campaign** and focus more than before on vocational training and professional development, with a view to equipping our employees for the changes they will face as a result of digitalization and other developments..



# STARKE SCHIENE



Germany needs a high-performance infrastructure

- A modern infrastructure **is the basis for economic growth.**
- A modern infrastructure is also **the foundation for attractive and efficient rail transport.**
- **This is the only way to convince more people to switch** to the most climate-friendly motorized means of transport and to shift more goods to rail.
- And **only in this way can the implementation of transport policy objectives** be successful.
- **Together with the Federal Government,** we are therefore working to give Germany the modern rail infrastructure it needs.
- This requires comprehensive renovation, modernization and digitalization, as well as **targeted expansion and new construction.**



# STARKE SCHIENE

Strong Rail means:



- We will remain a **leading pioneer in climate protection**, offering 100% renewable power by 2038.
- We will double long distance patronage to over 260 million passengers.
- We will add one billion new regional and local passengers.
- We will **raise DB Cargo's traffic volumes in Germany by 70%**.
- We will work with the German government to **expand network capacity by 30%**.
- We will enter a **new era with Digital Rail for Germany**.
- We will **transform our stations into hubs** for pioneering mobility.
- We will **hire 100,000 new employees** in the coming years.
- We will **buy more trains** and offer more connections than ever before.
- In everything we do, we will focus on our purpose: **building strong rail for Germany**.







## **New maintenance concept**

We are changing our construction and maintenance concept in order to reduce operational impact during the renovation and modernization of our infrastructure, thus stabilizing punctuality and reliability

## **General modernizations**

Our new modernization concept begins in 2024, and we will renew highly utilized lines and stations, which are of central importance for reliability and future transport growth.

## **Stations of the future and service facilities**

We are increasing the attractiveness of rail transport by targeted development and making access easier for people and goods.

## **Digitalization**

We are digitalizing rail operations with AI-supported rail network utilization and by expanding digital rail in Germany and digitally upgrading and refitting vehicle fleets.







**With our Strong Rail strategy, we are pursuing the goal of bringing more traffic to rail – for the climate, for the people, for the economy and for Europe.** We are consistently implementing this ambitious growth strategy in line with the Federal Government's transport and climate policy objectives. In doing so, we are supporting the necessary climate policy transformation in Germany.

**Together with the Federal Government,** we are setting the course for a shift in the mode of transport and improving product quality, creating additional capacity and thus improving customer satisfaction.



68%  
share of renewable  
energies  
in the DB traction current  
mix in 2023

~80%  
lower CO<sub>2</sub> emissions  
compared to road freight  
transport

~13 million  
fewer truck journeys per  
year on German roads

# Por que debemos seguir esta ruta?

Opiniones Personales

**Por el Clima – por nuestras Futuras Generaciones**

**Por la Gente – porque es un Derecho**

**Por la Economía – porque debemos Crecer**

**Por Chile – porque es nuestra Tierra**



# Ready for value creation



## **Pablo Bowen-Bobenrieth**

Vice President Americas

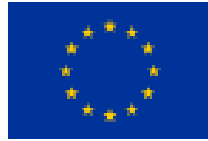
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# References:



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## The most common abbreviations used:

are the following:

**ATO**, Automatic Train Operation

**CCS**, Control Command and Signalling

**CEF**, Connecting Europe Facility

**CINEA**, European Climate, Infrastructure and Environment Executive Agency

**CNC**, Core Network Corridor

**DAC**, Digital Automatic Coupling

**DCM**, Digital Capacity Management

**EC**, European Commission

**ERA**, European Union Agency for Railways

**ERDF**, European Regional Development Fund

**ERJU**, Europe's Rail Joint Undertaking

**ERTMS**, European Rail Traffic Management System

**ETCS**, European Traffic Control System

**ETS**, Emissions Trading System

**FRMCS**, Future Railway Mobile Communication System

**GHG**, Greenhouse Gases

**MaaS**, Mobility as a Service

**MDMS**, Multimodal Digital Mobility Services

**MFF**, Multi-annual Financial Framework

**NRRPs**, National Recovery and Resilience Plans

**OSDM**, Open Sales and Distribution Model

**PSO**, Public Service Obligation

**RMMS**, Rail Market Monitoring Report

**RRF**, Recovery and Resilience Facility

**TMS**, Traffic Management System

**TSI**, Technical Specification for Interoperability

**TTR**, Timetable Redesign

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