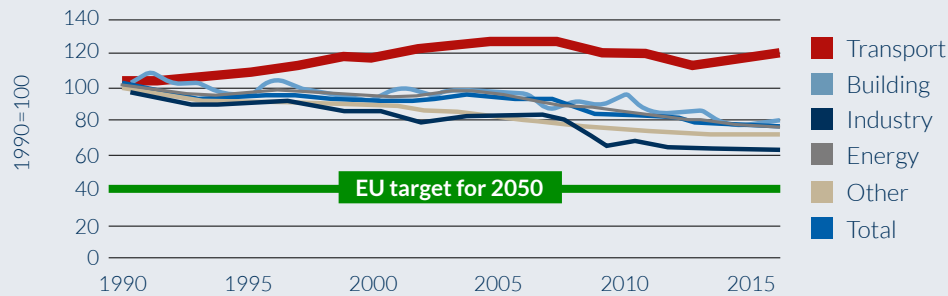


Put Europe “on track” to achieve climate-neutral transport

Transport emissions are the main obstacle in delivering the EU’s climate commitments

GHG emissions growth in the EU 1990-2016



Source: EEA, 2018

There is a huge gap between the EU target and reality

- Transport is the only sector in Europe which failed to decrease its greenhouse gas emissions between 1990 and 2016
- Emissions from transport are growing faster than any other sector

Rail is the only mode reducing its emissions!

- Thanks to energy-efficient zero carbon railways there can be **more transport activity without more emissions**

For a ready-made, widely available solution to decarbonise transport – turn to rail!

Rail combines energy-efficient mobility with fewer emissions

Rail is **6x more energy-efficient** than road due to physical advantages such as lower rolling and air resistance

Rail is **9x less CO₂ intensive** than road for freight and air travel for passengers

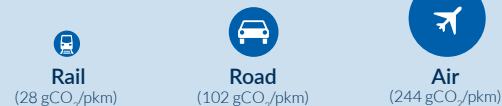


Distance per energy unit consumed

Freight



Passenger

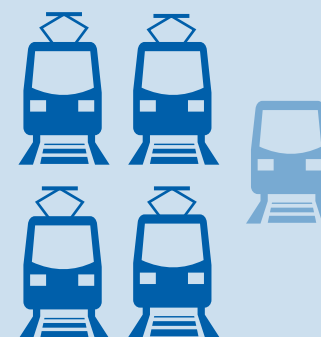


Source: EEA 2017 (2014 data)

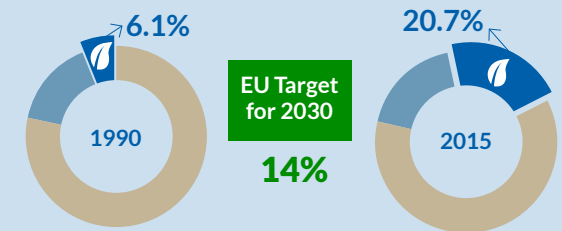
European railways already deliver zero-emission transport

4 trains out of 5 are already running on **electricity**, which is becoming greener

The railway sector is already **beyond the EU's 2030 renewable energy target** for transport



Rail's energy mix in the EU, 2015 compared to 1990



Source: IEA-UIC handbook, 2017

Source: EU Transport in Figures, Eurostat Energy Statistics 2018

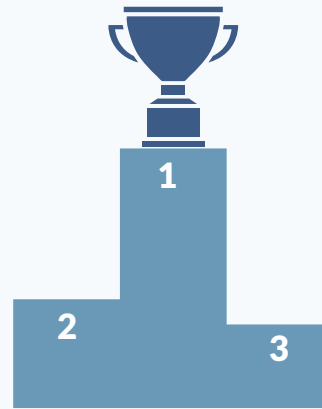
Rail is leading the way to climate-neutral mobility in Europe

The European rail sector is ranked **best on environmental impact**. To go even further, it has established its **own sustainable mobility strategy** with the aim of achieving **100% zero-emission** operations by 2050.

Our voluntary targets

2030 Lower emissions
-30% CO₂
compared to 1990

2050 Zero-emission
railways
0 CO₂



Did you know?



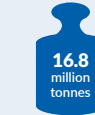
Rail is the most **carbon-efficient** motorised way to travel: CO₂ emissions from rail account for less than **3% of CO₂ emissions from transport** although it carries **17% of inland freight** and **8% of passengers** in Europe



Rail is **already electrified**: Switzerland's railway lines are 100% electrified, while Luxembourg (95%), Belgium (86%), the Netherlands, Sweden, Italy, Bulgaria and Austria are all above 70%



Railways are promoting **green electricity**: for example in the Netherlands electric trains are already running 100% on wind energy, in Switzerland and Sweden 100% on hydropower



As a result, the sector has **reduced total CO₂ emissions** from rail traction by **16.8 million tonnes** in 2016 compared to 1990, almost the entire CO₂ emissions of Croatia

Act now to accelerate transport decarbonisation

Decarbonisation of the transport sector remains both a **challenge** and an **opportunity**.

Rail is embracing the challenge

By continuing to increase its energy efficiency through improved technology and service efficiency



As a major electricity consumer, actively demand **green energy**



Driver training for efficient energy consumption



Modernisation/ electrification of fleet



Driving assistance/ Automated train operation



Recovery of braking energy



Improved traffic management

Policymakers need to seize the opportunity



Be ambitious: confirm **-60% target** in legislation



Support **continued electrification of rail** including cross-border missing links



Make best use of **rail stations**: integrate them into **active mobility, electric urban public transport** and **city logistics**



Encourage the shift to rail: level the competitive playing field through **internalisation of external costs**; starting with a balanced carbon pricing policy across all modes



Facilitate transport-related **research and innovation**: focus on marketability of **new clean technologies and multimodal solutions**



Foster **win-win cooperation** in climate change: **increasing rail's market share** will also benefit citizens through reduced local air pollution