

#CERevent
#TEN_T4Rail



THE TRACK TO A SUCCESSFUL TEN-T

*FOR A SUSTAINABLY
CONNECTED EUROPE*



under the patronage
of the European Parliament

More info at www.cer.be/ten-t-exhibition



The **Trans-European Transport Network (TEN-T)** is essential for the coordination of major rail projects, physical and digital, across Europe. The overall development of cross-border, regional and high-speed infrastructure, the necessary impetus to **shift more passengers and freight to sustainable modes like rail**, as well as cohesion and social inclusion all rely on a sound TEN-T policy. At the end of 2021, the European Year of Rail, the European Commission published its proposal for the revision of the Regulation on the Trans-European Transport Network. The file is pivotal to reinforce the foundations for a **seamless multimodal transport system with rail at its heart**.

Under the patronage of the European Parliament and kindly hosted by MEP Dominique Riquet, co-rapporteur on the TEN-T file, CER presented *'The track to a successful TEN-T for a sustainably connected Europe'*, a conference and exhibition taking place over three days in the European Parliament to showcase why TEN-T plays such an important role for rail and why rail deserves a special place in the TEN-T.

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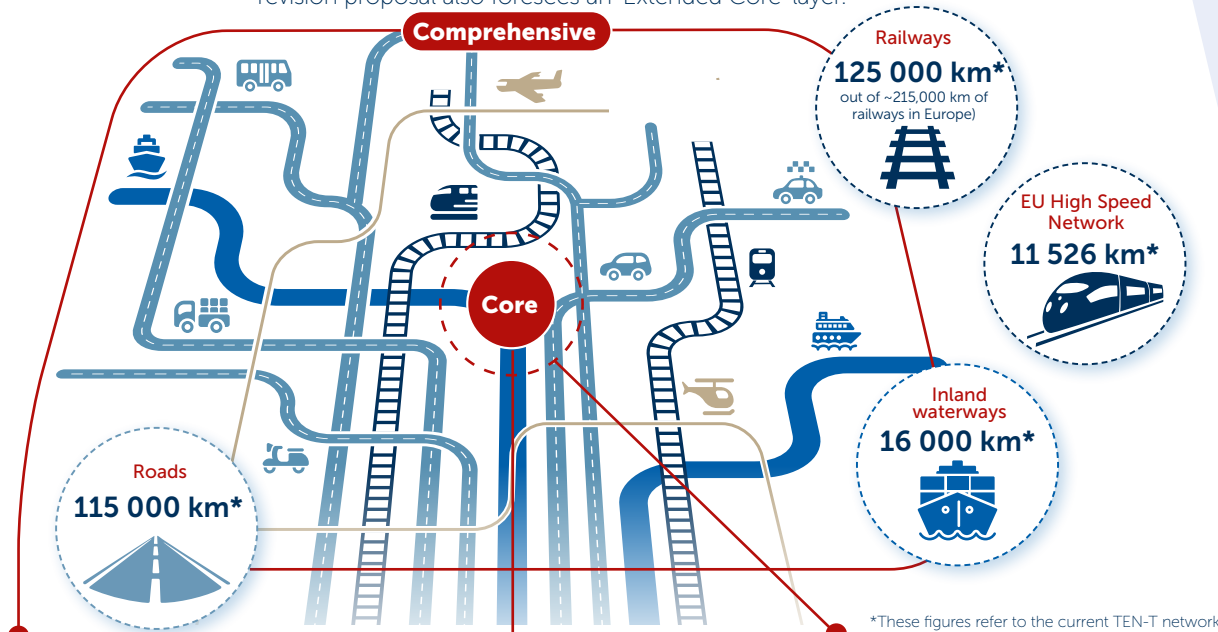
THE TRANS-EUROPEAN NETWORK FOR TRANSPORT : JOINED UP MOBILITY FOR A CONNECTED EUROPE

Read our full position here

What is TEN-T?

Trans-European Transport Network (TEN-T): a European network of railway lines, roads, inland waterways, maritime shipping routes, ports, airports and railroad terminals.

Currently made up of a Core and Comprehensive layer, the European Commission's revision proposal also foresees an 'Extended Core' layer.



The **Comprehensive Network** is the ground layer to ensure accessibility of all European regions.

The **Core Network** is the part of the comprehensive network of highest strategic and implementation priority, capturing the major transport flows across Europe. It would cover most of the newly proposed 'European Transport Corridors'.

The **Extended Network** is the Commission's proposed additional layer defined on the basis of priority sections which are part of 'European Transport Corridors'.

to be completed by 2050

to be completed by 2030

to be completed by 2040

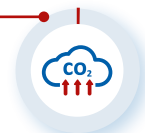
A work in progress: the completion of the TEN-T relies on infrastructure investments, with a focus on cross-border projects bringing EU added-value and territorial cohesion.

Why is rail important for the TEN-T?

Rail is vital as the backbone of a **sustainable transport system**.

DYK Rail emits **9x less CO₂** than other modes

0.4% of EU transport emissions come from rail to carry **17%** of Europe's freight and **8%** of passengers.



Rail **complements other transport modes** and efficiently relieves pressure on congested roads.

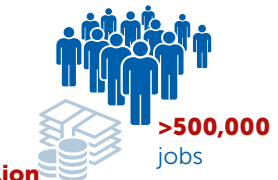
DYK **1 freight train** has the capacity of over **40 trucks**.



Investing in rail infrastructure (tracks, tunnels, stations etc.) has a **major positive impact on the economy**.

DYK Railway infrastructure investments generate...

€ 39 billion of gross value added.



>500,000 jobs

Rail helps forge a **European identity and shape common values** through accessible city to city travel.

DYK Since 2018, **130 000** 18-year olds have interrailed for free thanks to the DiscoverEU programme.



→ A strong and attractive rail network connecting passenger and freight terminals can serve as the backbone of a sustainable transport ecosystem for generations to come.



What do we need for an effective TEN-T?

The revision of the Regulation governing TEN-T is a chance to:



Promote the creation of an interoperable European high-speed network linking European capitals and major cities, connecting urban nodes and airports and supporting the development of international passenger services.

Doubling high-speed rail traffic by 2030 will require at least a **75% increase** in the current network length of 11,526 km.



Further integrate urban nodes and missing last mile infrastructure

for freight and multimodal connections for passengers



Improve cooperation between the governing bodies of Rail Freight Corridors and Core Network Corridors

allowing investment priorities to consider market needs, especially in cases of rail infrastructure gaps and bottlenecks.



Accelerate ERTMS deployment in a continuous and synchronised manner, for a truly interoperable network. The deadline of 2050 to equip the TEN-T with radio-based ERTMS must be kept but it is important to support plans for countries wanting to achieve it by 2040.



Integrate rail digital transformation into infrastructure and innovation investment priorities. New processes like TimeTable Redesign (TTR) and technologies such as Digital Capacity Management and Digital Automatic Coupling increase capacity of the entire system.



Set ambitious infrastructure requirements

to improve the network (e.g. P400, minimum speed), but these should also consider the characteristics of the network for a better use of European and national funds.



Investing in rail for a sustainable TEN-T

With the right policies and rail as a backbone, the implementation of TEN-T can help reach key EU Green Deal objectives:



ensure modal shift to rail thus achieving a **90% reduction in transport emissions** by 2050.



double high-speed rail traffic by 2030 and triple it by 2050.



increase rail freight by 50% by 2030 and double it by 2050.



Numerous projects, from major works to smaller upgrades, are progressively building the TEN-T vision for rail.



Massive investments are still needed to connect railways, both physically and digitally, and with other transport modes, increasing both inter- and multimodality.



Now more than ever, with a global climate emergency and clear EU climate objectives to meet, it is vital to invest in green transport like rail at the heart of the TEN-T.



THREE QUESTIONS TO...



Interview

**DOMINIQUE
RIQUET**
MEP, co-rapporteur
on TEN-T

What are the most pressing investment needs for the European rail network? New infrastructure, upgrades, digital solutions?

The most pressing investment needs for the European railway network unfortunately concern maintenance or repairs, which is a worrying situation. What we urgently need is also to complete the network, in priority where entire sections are missing, while at the same time improving safety and intermodality, in particular through the ERTMS.

What are the missing pieces of the multimodality puzzle for passenger and freight that a revised TEN-T can bring?

The missing pieces of the puzzle of freight and passenger intermodality that the TEN-T revision addresses in priority are the cross-border connections between Member States. In southern Europe, cross-border connections are of paramount importance to open up to Spain, which remains landlocked with regard to rail connections. In Italy, we see that Mediterranean connections remain underdeveloped. Overall, northern Europe is poorly served by cross-border connections. There are numbers of missing links between France and Belgium, and some quite urgent projects to achieve in the French Alsace region. There is the case of Baltic and Scandinavian states which are now isolated from Russia and must be reconnected to the North-South axis of the European network. The entire route towards the Balkans and future EU Member States is also a pressing matter, as is the ability to manage the connections with Ukraine during the crisis period. There are, therefore, numerous missing links to be considered in Europe.

Is Europe dedicating enough resources to the implementation of the TEN-T?

I believe the answer to the previous question is clear enough! Even gathering all the dedicated mechanisms, as the Connecting Europe Facility but also the European Regional Development Fund for cohesion Member States, which is two to three times more important than the CEF, resources are still insufficient. Implementing the TEN-T would probably require EUR 500 billion over the next few years.



THREE QUESTIONS TO...



Interview

HERALD RUIJTERS Director for Investment, innovative & sustainable transport, DG MOVE

What are the most pressing investment needs for the European rail network? New infrastructure, upgrades, digital solutions?

Our very first EU priority remains to complete the core TEN-T network by 2030. This implies to invest in both the upgrade of existing rail lines and the development of new infrastructure. As EU budget is limited, we have to concentrate our financial support on those projects where the European added value is the highest. This is in particular the case with cross-border links on major corridors, such as Lyon-Turin, Brenner or Rail Baltica, just to mention a few. But, beside the completion of the TEN-T network, optimizing the use of existing capacities is also essential. This is why investing in digital solutions, in particular in ERTMS, is among our priorities.

What are the missing pieces of the multimodality puzzle for passenger and freight that a revised TEN-T can bring?

Multimodality is currently hampered by an insufficient number of efficient transfer hubs for passengers and freight allowing for a smooth transfer between modes as well as by the slow implementation of certain infrastructure standards (or the lack thereof) on the TEN-T. The revised TEN-T Regulation therefore puts the focus on the development of sufficient multimodal freight terminal capacity across Europe and on the introduction of new and/or reinforced infrastructure requirements for all transport modes whose implementation shall be guaranteed through reinforced governance instruments. Moreover, the revised TEN-T aims at an optimal intermodal integration of the entire logistic chain, taking also particular account of better connections between short and long-distance travels ("last mile"), e.g. through the creation of multimodal passenger hubs in urban nodes.

Is Europe dedicating enough resources to the implementation of the TEN-T?

EU funding in favour of the TEN-T has increased very significantly under the current MFF period 2021-2027, thanks to the Recovery and Resilience Facility (RRF) which adds more than €15 billion to the other instruments benefitting to TEN-T, in particular the Connecting Europe Facility budget. But investing needs are huge and, at this stage, the achievement of our TEN-T objectives for 2030 is still not guaranteed. This is why EU financing must help us to mobilise national and regional funds and have a strong leverage effect on private financing. This is also why our TEN-T coordinators' role is so important.



THREE QUESTIONS TO...



Interview

ANDREAS MATTHÄ CER Chair

What are the most pressing investment needs for the European rail network? New infrastructure, upgrades, digital solutions?

We need to combine all three of these investment areas. To reach the objectives of the Sustainable and Smart Mobility Strategy, we need to provide the network with new lines and important cross-border links. At the same time, the upgrade of the existing lines is fundamental to keep the European network capable of reaching modal shift. The third crucial factor, to maximise network capacity, is digital rail technology such as Digital Automatic Coupling (DAC). In part, this vision is shared in the new TEN-T Revision but we still see room for improvements.

What are the missing pieces of the multimodality puzzle for passenger and freight that a revised TEN-T can bring?

As CER we support the multimodal approach proposed by the Commission and, so far, confirmed by the Parliament and the Council. The new TEN-T proposal is a huge improvement compared to the current legislation with a real focus on urban nodes and on freight terminals. However we still miss key elements for a level playing field with the other modes of transport. To create fair intermodal framework conditions, the 'polluter pays' principle should be implemented. I am thinking here of important dossiers that are or will soon be on the table, such as the ETS review and the Energy Taxation Reform.

Is Europe dedicating enough resources to the implementation of the TEN-T?

The new TEN-T proposal introduces several additional requirements and obligations for our sector. However this ambition in the objectives is not reflected in a coherent financial framework. The Connecting Europe Facility and the Recovery and Resilience Facility are today, together with national funds, the only sources to finance the future European rail infrastructure network. These instruments are by far insufficient to cover the costs of the 2030 goals, as the first TEN-T deadline. On top of this, we need to consider the enormous increase of energy costs that European Railways are suffering and that, so far, we are carrying entirely on our shoulders. If we want to realise a sustainable transport system in Europe we need to finance it properly.



THE CONFERENCE

To set the scene for the exhibition, a high-level panel debated on the importance of infrastructure investments, as well as more competitive rail freight and passenger services. They addressed a range of issues including the maintenance of the rail network, high-speed rail, the price of energy, and technical solutions such as ERTMS and Time Table Redesign (TTR) as a means to increase rail capacity and boost performance.





"Rail is the transport mode that has the highest potential to decarbonise mobility. In order to reach our modal shift goal, thousands of kilometres of lines will need to be modernised or built. The TEN-T ensures that they are built at the best possible locations, standardised and financed."

Dominique Riquet
MEP, Co-Rapporteur on TEN-T



"The trans-European transport network remains the cornerstone of coordinated infrastructure development in the European Union. In these times of climate change and a war raging on our continent, we have become acutely aware how much we depend on resilient cross-border infrastructure that connects all Member States and beyond."

Herald Ruijters,
Director, DG MOVE



"The TEN-T Revision opens the door to unleashing rail's full potential as the most sustainable transport mode, but that does not come without costs and challenges. It is crucial to invest in railways, to build and upgrade resilient infrastructure that complies with the technical requirements and supports rail as the backbone of sustainable mobility."

Alberto Mazzola,
CER Executive Director



"Building new rail infrastructure is a key for accomplishing the TEN-T goals. Dedicated high-speed rail for long-distance passenger trains and conventional lines optimised for freight and regional trains can go hand in hand with digitalisation to significantly increase capacity of EU railways and become a backbone of zero-emission mobility."

Jiří Svoboda
Director General, Správa železnic



"Rail freight contributes to fundamental EU values such as socioeconomic and territorial cohesion and the greening and digitalisation of the EU economy. It has become a synonym of European solidarity throughout the COVID pandemic and the war in Ukraine."

Isabel García Muñoz
MEP, TEN-T Shadow Rapporteur





"Today's rail traffic in Europe is still managed by over 20 different systems. With ERTMS, we will grant a consistent digital infrastructure by creating a single, fully harmonised system for the entire European continent. This will mark the beginning of a transformation: rail freight will become faster, safer and much more efficient."

Clemens Först
CEO, Rail Cargo Group



"The TEN-T Regulation is a key ingredient for the creation of a seamless rail passenger EU network, promoting cross-border operations and enhancing cooperation among companies. Trenitalia strongly supports the establishment of international corridors, being deeply focused on ensuring high-quality services in several EU countries."

Luigi Corradi
CEO, Trenitalia



"We need to push for ERTMS implementation as it will also contribute to increase infrastructure capacity. We need to integrate urban nodes in TEN-T. And finally high-speed rail, as a driver for a social and economic growth in Europe."

Massimiliano Salini
MEP



THE EXHIBITION

The three-day exhibition transported visitors to "Europe Central Station". At every platform, news kiosk and storage locker, guests could learn about the infrastructure projects building the TEN-T for rail, as well as developments in rail passenger and freight services, and the underlying technology that's helping to revolutionise the sector for the future.







EUROPE'S MASTERPLAN FOR COHERENT TRANSPORT INFRASTRUCTURE



Infrastructure was at the heart of the exhibition with a large interactive map of rail infrastructure projects from major constructions to missing links. Visitors could also take a closer look at 6 European mega projects showcased at their own stands: Rail Baltica, the Polish STH high-speed rail programme, the Fehmarnbelt Tunnel, the Brenner Corridor Munich-Verona, the New Rail Link through the Alps (NRLA), and the Lyon-Turin Tunnel Euralpin.

Discover our
interactive
project map
online



BOOSTING INTERNATIONAL PASSENGER RAIL SERVICES

Strong TEN-T policies can help boost Europe's international passenger rail services. On board a replica of one of the Connecting Europe Express carriages, guests were reminded of this special train's epic journey during the European Year of Rail and shown the value of high-speed rail and developments in international rail ticketing.



Remember the Connecting Europe Express? Climb aboard this ultimate symbol of rail's power to connect.



Attracting more passengers to rail means constantly improving services. Find out how railways have committed to improving international ticketing in the CER Ticketing Roadmap.



Our interactive map of high-speed and night train connections is available online here:



What if there were high-speed rail connections between all major European capitals? We imagined what a high-speed timetable of the future could look like.



AN OPPORTUNITY FOR MORE RAIL FREIGHT

Our freight section showed how TEN-T is an opportunity for modal shift. Better alignment with Europe's Rail Freight Corridors can play a huge role. We also presented the technologies that are helping to revolutionise the sector for the future and CER's guiding principles to enhance rail-based multimodality.

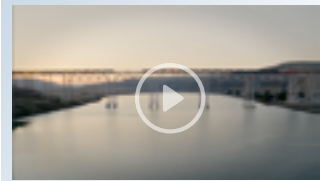


30 by 2030: TEN-T must deliver modal shift

Shifting more freight to rail is an essential contribution and a necessary condition to fulfil the objectives of the European Green Deal

Rail carries around 17% of Europe's inland freight, versus a massive 73% transported by road

Target 2030
30% of all goods transported by rail in Europe



Implementing 5 technologies making rail freight



TEN-T, by promoting interoperability, digitalisation, automation and multimodality, will underpin high-performance rail logistics processes that support our daily lives. Rapid implementation of these technologies is critical to unlock the full potential. Together with national infrastructure in terms of European cooperation across all players within the logistics chain, as well as leveraging the playing field between transport modes, these technologies can help deliver a rail modal share of 30% by 2030.

Find out more:

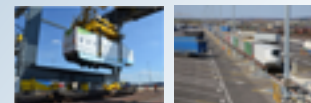


The European Green Deal calls for a contribution of the 10% of inland freight carried today by road to be shifted onto rail and inland waterways. The REC Regulation (Reg. 912/2023) has brought positive developments for European rail freight in terms of coordination between infrastructure managers. However, there has been no significant increase in rail modal share during the past years. The vision of the Road-to-Rail Corridor is a key opportunity to make improvements to ensure modal shift toward freight happens and the European Green Deal becomes a reality.



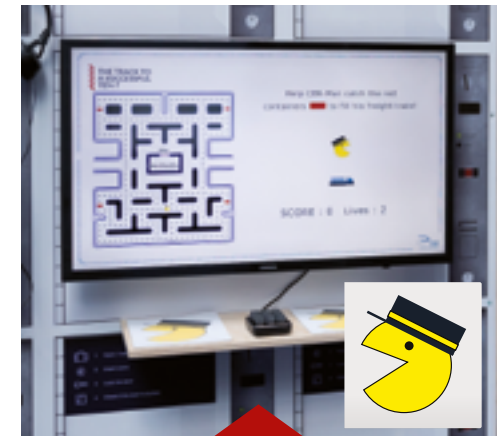
Rail-based multimodality

As we enter an era of energy scarcity, rail-based multimodal transport is the way forward. For multimodality to develop, trucks need to become more self-compatible, whereas national terminals need to expand.



To accommodate rail-based multimodality, nations have invested various transportation techniques and innovative wagon types.

Discover CER's guiding principles to enhance Europe's multimodal potential



Our CER-Man game was a fun way of highlighting the benefits of shifting more freight to rail. You can still play online here:



Find the full presentation of our freight section online here:



RAIL'S DIGITAL FUTURE

As the digital landscape and rail technology evolve, an effective TEN-T policy can support new opportunities and EU-wide implementation. Our digital area of the exhibition showcased the key ingredients in rail digitalisation.

The digital future of rail is bright

Key ingredients in rail digitalisation

Digital Capacity Management



Facilitating the complete capacity management process, from advance planning to the train run

ERTMS

A single system to manage all rail traffic in Europe



Supporting digital rail operations and enhancing passengers' on-board experience



Automatic Train Operation

Automated and highly optimised train control



Digital Automatic Coupling

Enabling simpler, safer, more efficient rail freight operations



Satellite technology

Tracking the position and speed of trains without the need for costly trackside hardware



Digital Platforms

Offering a consolidated data system to deliver seamless international and multimodal transport:

- **Business-to-Customer** (e.g. ticketing)
- **Business-to-Business** (e.g. freight operations)
- **Business-to-Administration** (e.g. eFTI Regulation)



Digital translation tool

Facilitating cross-border exchanges between train drivers and local infrastructure managers

Click on the icons to learn more



CONCLUSION



**ALBERTO
MAZZOLA**
CER Executive
Director

A handwritten signature in blue ink, appearing to read 'A. Mazzola', written in a cursive style.

The revision of the TEN-T Guidelines represents an important step forward towards the construction of an integrated and modern European rail network by defining ambitious targets for the next 30 years. The Community of European Railway and Infrastructure Companies (CER) believes that investing in physical and digital infrastructure is a mandatory path to increase and improve rail services and contribute to the EU's green goals. In the last 30 years, the rail network decreased by 10% while motorways increased by 80% in the same period. This is a trend we need to rebalance.

In a level playing field, railways have shown themselves to be by far the more competitive mode of transport, with fewer external costs. Investments in the sector have a very high multiplier effect for the economy and give back to citizens and companies with a strong return in terms of services. However the funds needed to complete the TEN-T for rail are largely beyond the resources available, with an estimated cost of around EUR 500 billion to achieve the goals set for 2030 and almost EUR 1 500 billion for the 2050 targets. The only way to address this gap is to provide resources through a plurality of financial instruments, and by applying to all transport modes the 'polluter pays' principle so often talked about and so little applied.

CER supports a great many aspects of the proposed revision of the TEN-T Guidelines: most of the infrastructure and operational requirements, the provisions for ERTMS deployment, the creation of the European Transport Corridors, the integration of urban nodes and the connection to freight terminals, as well as the extension of the network to third countries. Nevertheless, all these elements of the proposal must be considered in a realistic implementation context with the available resources. The new TEN-T is the opportunity to plan the infrastructure of the future by learning from what we have missed in the past and finally having the courage to make railways the backbone of an integrated, interoperable and multimodal European transport system. We call on the European institutions to take on this challenge.





The Voice of European Railways

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