

Joint Vision for the Sector on Digital Capacity Management

1. Transport is the only EU industry to have increased its CO₂ emissions since 1990. Freight Transport accounts for 10% of Europe CO₂ emissions.
2. Rail is the most sustainable option for freight and passenger transport on land and by air with one train emitting significantly less CO₂ and using less energy due to less friction of steel.
3. The European Commission has proposed the Green Deal with the objective to transform Europe into the first carbon-neutral continent by 2050 and enhance Europe's CO₂-reduction targets from 40% to 50% by 2030. Key to achieving this goal is to transport at least 30% of all goods in Europe by train.
4. Shifting more volumes and people to rail leads to more trains in the future.
5. To succeed, Railway Undertakings (RUs) require more capacity as well as easy access to long- and short-term high-quality train paths (similar to a "Google Maps" for rail).
6. Today, there is not enough capacity for all future trains, we therefore need both:
 - » **"More infrastructure"**: building new infrastructure (new lines, multiply tracks, tunnels, larger stations; long time for completion and large investments needed)
 - » **"More trains on existing infrastructure"**: The programme "TTR for Smart Capacity Management" will optimise the way we use the current network through new working methods (Capacity Management Process) and innovative digital solutions (Digital Capacity Management). This will increase the infrastructure capacity by a significant extent within a short time frame and with comparably small investment.
7. Railway Undertakings (RUs) and Rail Infrastructure Managers (IMs) have come to the common conclusion that Digital Capacity Management (DCM) allows IMs to transform and thus create, together with ERTMS, the needed capabilities. An integrated IT solution will connect the systems from IMs and RUs and facilitate the complete capacity management process, from advance planning to the train run. At the same time, IMs as well as passenger and freight RUs can optimise their resources by using digital modelling, automated path creation starting with short term requests, optimisation algorithms and allocation, to allow fast, good quality train paths "in one click".

8. The whole rail sector will benefit from Digital Capacity Management through digitalisation, automation and optimisation. A fully digitalised network will progressively allow automated path creation in real-time and an optimised infrastructure usage. This means more trains on the same infrastructure.
9. Now it requires focused effort to leverage the learnings, implement step wise, and cross border, starting with a core group of IMs in Europe to take the lead. Overcoming national particularities in the capacity management processes is important to realise the benefits DCM will bring.
10. The sector has come up with an incremental approach to achieve the overall goal of creating one single European digital railway infrastructure allowing customers to reap first benefits within a short timeframe (2-5 years).
11. The European programme “TTR for Smart Capacity Management” is up and running, but for its implementation funding and resources (national and international) are essential.
12. EU and national governments need to
 - » finance DCM implementation with European and national funds. A total amount of 675 million EUR is estimated for IMs and RUs IT developments.
 - » adapt the regulatory framework at European and national levels to allow the fully harmonised implementation of TTR

and therefore, benefit by

- » **supporting the environment:**
more sustainability through less new physical infrastructure
- » **saving money:**
increasing capacity by DCM requires only 5% of the costs compared to building new physical infrastructure
- » **saving time:**
digital capacity can be made available faster than building physical infrastructure
- » **enhancing the product of rail transport for freight and passengers:**
make railway more competitive towards road and air for modal shift by creating higher quality, reliability and efficiency

Vienna, 4 October 2021



Paul Mazataud
RailNetEurope



Clemens Först
Rail Freight Forward



Stephan Pfuhl
Forum Train Europe



François Davenne
UIC



Alberto Mazzola
CER



Monika Heiming
EIM



Conor Feighan
ERFA



RNE – RailNetEurope (RNE) started in January 2004 on the initiative of a number of European railway Infrastructure Managers and Allocation Bodies (IMs/ABs), who wished to establish a common, Europe-wide organisation to facilitate their international business. Today RNE counts 38 Full Members from over 30 different countries and 11 Associate Members (the Rail Freight Corridors). All in all, their rail networks add up to well over 230 000 kilometres of railway lines. RNE's mission is to help its members meet the challenges of the rapidly changing railway sector in Europe and to promote international rail traffic. For more information visit our website: www.rne.eu

RFF – Rail Freight Forward is a coalition of European rail freight companies that are committed to drastically reduce the negative impact of freight transport on the planet and mobility, through innovation and a more intelligent transport mix. It currently consists of 23 members. For more information visit our website www.railfreightforward.eu

FTE – FTE is **the** European platform for Railway Undertakings for Capacity Management and Timetabling. As the European coordination platform, FTE promotes cross-border coordination amongst railway undertakings. In doing so, the FTE makes an essential contribution to promoting interoperability of European's rail services and supports its members with an international production planning process. This is synchronised with the schedule of the infrastructure managers and with EU Directives. FTE helps its members to harmonise their production plans right through to requests for cross-border train paths and guarantees its members international contacts and an excellent network with having nearly 100 members in almost all European countries, which allows to actively represent its members interests in dealings with infrastructure managers, pan-European organisations and international authorities. For further information visit our website www.forumtraineurope.eu or our LinkedIn account <https://www.linkedin.com/company/forum-train-europe-fte/>

CER – The Community of European Railway and Infrastructure Companies (CER) brings together around 70 railway undertakings, their national associations as well as infrastructure managers and vehicle leasing companies. The membership is made up of long-established bodies, new entrants and both private and public enterprises, representing 73% of the rail network length, 76% of the rail freight business and about 92% of rail passenger operations in EU, EFTA and EU accession countries. CER represents the interests of its members towards EU policymakers and transport stakeholders, advocating rail as the backbone of a competitive and sustainable transport system in Europe. For more information, visit www.cer.be or follow us on Twitter [@CER_railways](https://twitter.com/CER_railways) or [LinkedIn](https://www.linkedin.com/company/cer-railways).

EIM – EIM, the association of **European Rail Infrastructure Managers**, was established in 2002 to promote the interests and views of the independent Infrastructure Managers in Europe, following the liberalisation of the railway market. It also provides technical expertise to the appropriate European bodies such as the European Union Agency for Railways. EIM's primary goal is promoting growth of rail traffic and the development of an open, sustainable, efficient and customer orientated rail network in Europe. Visit our [website](http://www.eimrail.eu) or follow us via Twitter [@Eimrail](https://twitter.com/Eimrail).

ERFA – ERFA is the European Association representing European private and independent railway companies. ERFA members share a commitment to work towards a non-discriminatory, competitive and innovative Single European Railway area. For more information www.erfarail.eu.

UIC is the worldwide organisation for the promotion of rail transport at a global level and collaborative development of the railway system. It brings together some 200 members on all 5 continents, among them rail operators, infrastructure managers, railway service providers, etc. UIC maintains close cooperation links with all actors in the rail transport domain right around the world, including manufacturers, railway associations, public authorities and stakeholders in other domains and sectors whose experiences may be beneficial to rail development. The UIC's main tasks include understanding the business needs of the rail community, developing programmes of innovation to identify solutions to those needs and preparing and publishing a series of documents known as IRS that facilitate the implementation of the innovative solutions. Visit our [website](http://www.uic.org) or follow us on Twitter [@UIC](https://twitter.com/UIC) or [LinkedIn](https://www.linkedin.com/company/uic)



Issuing associations