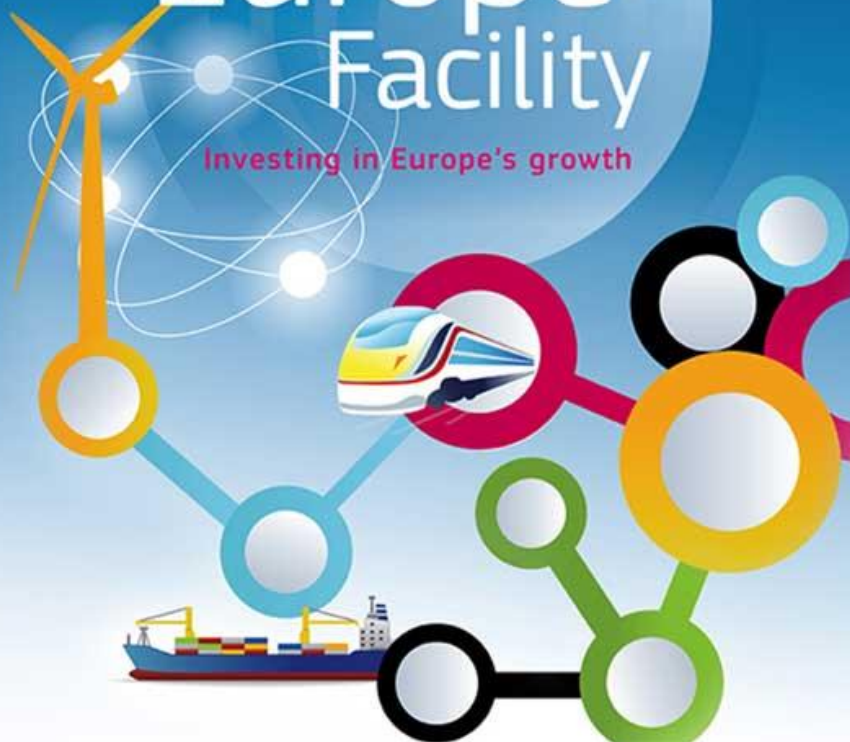


# Connecting Europe Facility

Investing in Europe's growth



***Connecting Europe Facilities Transport 2021-2027  
(CEF II)***



Co-financed by the Connecting Europe  
Facility of the European Union

## Connecting Europe Facilities Transport 2021-2027 (CEF II)

Project	Title	Union financial aid
21-BE-TG-ERTMS track side	ETCS Level 2 track-side deployment on several sections of the Core Network in Belgium	50%
21-BE-TM-4 long tracks 750 m	Construction of 4 long tracks in Bundle of Montzen to accommodate 740 meter long trains between the Port of Antwerp and the German Border	50%
21-BE-TG-Elimination LC compr	Removal of 9 level crossings on the Comprehensive Network in Belgium	30%
21-EU-TG-DCM IMP 22_24	Digital Capacity Management Implementation 2022-2024	50%
21-EU-TG-BURDI	BeNe U-space Reference Design Implementation	50%
22-BE-TM-Rail Port of Antwerp	Upgrade and electrification on Right Bank of Port of Antwerp with a focus on multimodal terminals	50%
22-EU-TG-RGT	Upgrade of the Cross Border Railway Connection Ghent (BE) and Terneuzen (NL) - Integrated Preparatory Phase	40%
22-EU-DIG-5G HSL EUROLINK	5G High Speed Line EURO LINK Paris – Brussels 5GHSL Eurolink	50%
23-BE-TM-FRONT	Future-proof rail connections on the Antwerp port platform	50%
2023-BE-TG-EuroCap-Rail	Upgrading works on two sections between Louvain-la-Neuve and Luxembourg on the North Sea-Mediterranean CNC (EuroCap-Rail) to increase speed	30%

## 1. 2021-BE-TM-4 long tracks 750 m

**Project name:** Construction of 4 long tracks in Bundle of Montzen to accommodate 740 meter long trains between the Port of Antwerp and the German Border

**Scope:**

The project is part of a Infrabel Masterplan to roll-out 750m side tracks that enable the running of 740m trains on key sections of the freight corridors going through Belgium.

In this context, the project aims at optimising the decommissioned rail bundle of Montzen on line 24, located North Sea- Baltic Core Network Corridor. The project comprises the construction of 4 new electrified tracks for 740 m trains and a new access to the main railway line 24.

The central location of the bundle of Montzen at a strategic position on the North Sea-Baltic CNC makes it an important logistic and economic hub, which is also of interest for military transport from the Port of Antwerp to the German border and the Eastern part of the continent.

These 4 new electrified tracks will be built on the location of an old bundle in Montzen, which was taken out of service several decades ago and partially dismantled. In addition, the project includes signalling and catenary works.

The project is co-financed for 50% by the European Union with a maximum amount of 5.27 million EUR.

## 2. 2021-BE-TG-ERTMS track side

**Project name:** ETCS Level 2 track-side deployment on several sections of the Core Network in Belgium

**Scope:**

The Belgian network plays a significant role as a European railway hub, connecting the harbours of Antwerp, Ghent and Zeebrugge to the Europe's main industrial regions. It is part of the European high-speed rail network and includes three Core Network Corridors: Sea-Mediterranean and North Sea-Baltic.

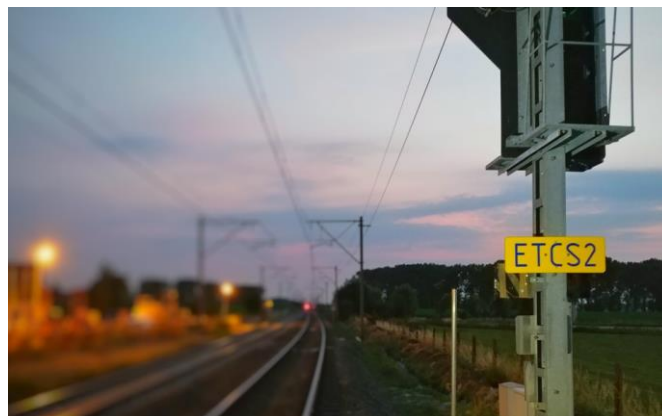
The project covers the deployment of ERTMS, Level 2, Baseline 3 (set #2) on 377 km double-track line equivalent, including 196 kilometres of underlying electronic interlockings type Simis W, on the following railway sections, located on the three Core Network Corridors:

- Line 34, section Hasselt – Glons: ETCS on 75 km double track equivalent, including 66 km interlockings;
- Line 24 section Glons - Montzen (border not included): ETCS on 75 km double-track equivalent, including 22 km interlockings;
- Line 51(A) section Brugge – Zeebrugge : ETCS on 26 km double-track equivalent;
- Line 75 section Ghent-Sint-Pieters – Waregem: ETCS on 60 km double-track equivalent, including 60 km interlockings;
- Line 58/59 section Merelbeke – Ghent: ETCS on 30 km double-track equivalent;
- Line 59 section Ghent - Antwerp-South: ETCS on 111 km double-track equivalent, including 48 km interlockings.

The project belongs to the Belgian Masterplan ETCS on the implementation of ETCS on the entire Belgian railway network by 2025 and covers about 15% of the envisaged roll-out.

Through the deployment of ETCS the Belgian government and the infrastructure manager Infrabel aim to create one of the safest railway networks in Europe, which fully complies with the European infrastructure requirements set out in the TEN-T Guidelines. By increasing the interoperability of the railway networks, the project supports the opening and the growth of the common European market.

The project is co-financed by the European Union based on km double-track equivalent of ETCS/interlocking with a maximum amount of 24.80 million EUR.



### 3. 2021-BE-TG-Elimination LC compr

**Project name:** Removal of 9 level crossings on the Comprehensive Network in Belgium

**Scope:**

The scope of the project concerns capacity and performance upgrade of existing railway lines, including the removal of level crossings located on three railway lines of the Comprehensive Network in Belgium. The Global Project aims at reducing the number of level crossings in the railway network in Belgium.

The project contains the removal of level crossings by constructing three bridges, two bicycle-pedestrian tunnels and one road tunnel. on the following spots:

- Removal of level crossings 7 and 8 on railway line 43 Angleur - Marloie at Esneux;
- Removal of level crossings 83 and 84 on railway line 125 Namur – Liège-Guillemins at Sclaigneaux;
- Removal of level crossings 75, 76, 77 and 78 on railway line 125 Namur – Liège-Guillemins at Andenne;
- Removal of level crossing 62 on railway line 15 Antwerp – Hamont at Herentals.

The removal of these nine level crossings on the Comprehensive Network will contribute to:

- Increase the safety for both road and rail users by reducing the number of accidents, serious and minor injured, and fatalities at level crossings;
- Increase efficiency and punctuality as a result of raising the reliability and regularity of traffic by decreasing traffic disturbance for train traffic and delays due to level crossing malfunctioning;
- Reducing the costs of the maintenance and renewal of level crossings;
- Increasing the capacity of the concerned railway lines by removing bottlenecks; - Increase the robustness of the Belgian railway network.

The project is co-financed for 30% by the European Union with a maximum amount of 4.27 million EUR.



Picture: Finished tunnel at Vossenslag (Herentals)



Picture: Finished bridge at Esneux

## 4. 2021-EU-TG-DCM IMP 22\_24

**Project name:** Digital Capacity Management Implementation 2022-2024

**Coordinator:** RNE

### Scope

The overall objective of this project is to continue the Europe-wide implementation of the programme 'TTR for a Smart Capacity Management' which was launched as a project in 2014 with the overall aim to increase international rail attractiveness and efficiency, so that rail can increase its competitiveness and market share on the European transport market. This project intends to continue the valuable work started by previous EU-funded actions.

It will do so by:

- Supporting rail stakeholders in implementing the agreed and committed activities in the frame of the programme 'TTR for a Smart Capacity Management';
- Implementing an additional market-oriented application for Short Term Path requests – the so-called 'Automated Short Term Path Request' at international level (reduction of lead time from 2-3 weeks to 1-2 days);
- Adjusting IM legacy systems to allow cross-border data exchange, to facilitate integrated infrastructure capacity and traffic management;
- Supporting rail stakeholders in developing common Telematics Reference Files, merging the existing TAF and TAP Reference File sets to be used in the telematics framework and by other registers managed by the ERA or the rail sector;
- Supporting Infrastructure Managers and Railway Undertakings in implementing and ensuring the compliance of the rail system and its sub-systems with the TAP and TAF TSI.

The project is co-financed for 50% by the European Union with a maximum amount of 14.15 million EUR.

## 5. 2021-EU-TG-BURDI

**Project name:** BeNe U-space Reference Design Implementation

**Coordinator:** Skeyes

### Scope

The BeNe-U-space Reference Design Implementation (BURDI) project will be implemented around cities of Antwerp, Liège and Brussels where the proximity of international Airports, an active maritime Port and the proximity of the border with The Netherlands are considered as a relevant factors of development for UAS operations in multiple domains like delivery of goods, inspections, support to medical as well as security operations.

The project objectives are:

- to implement a U-space airspace concept able to manage various, dense and complex UAS operations in controlled, uncontrolled and UAM environment;
- to make this implementation a reference to develop best practices, standardisation, harmonisation and/or interoperability requirements fostering operational deployment of U-space airspaces in Europe;
- to ensure that solutions to be deployed are economically sustainable and socially acceptable/supported for the benefit of the general public.

The project is co-financed for 50% by the European Union with a maximum amount of 0.25 million EUR.



Picture: [BURDI](#)

## 6. 2022-BE-TM-Rail Port of Antwerp

**Project name:** Upgrade and electrification on Right Bank of Port of Antwerp with a focus on multimodal terminals

**Scope:**

This project will lead to greater efficiency and flexibility of rail traffic, with lower costs as a result, and making rail transport a more interesting transport method than it is today.

The project encompasses works in 4 area's of the Port of Antwerp:

- Signalling works on line 223, section from BASF/Combinant till rail yard Oudendijk;
- Installation of a safety system and electrification of 3 tracks within rail yard Oorderen;
- Renewal of Antwerp-North hump yard by installing a control and train detection system;
- Electrification of 10 tracks in a bundle head of rail yard South.

The project is co-financed for 50% by the European Union with a maximum amount of 30.9 million EUR.



## 7. 2022-EU-TG-Rail Ghent Terneuzen

**Project name:** Upgrade of the Cross Border Railway Connection Ghent (BE) and Terneuzen (NL) - Integrated Preparatory Phase

**Coordinator:** North Sea Port

**Scope:**

The study project is part of a European project of common interest (global project) titled Rail Gent Terneuzen (GRT). The GRT project is the result of years of preparations and political negotiations, and has the objective to realise physical infrastructure improvements to upgrade the section Gent (BE) – Terneuzen (NL) for rail. This section is included in the CEF regulation 2021/1153 as one of the cross-border links of the comprehensive network. As such the project represents a project of common interest which ensures the continuity of the TEN-T between Member States, BE and NL.

In line with the national and EU regulations, the global project supports interoperability and sustainability of the railway infrastructure, in order to meet EU climate neutrality and zero pollution ambitions by 2050, and to contribute to smart, sustainable and inclusive growth and to enhance territorial, social and economic cohesion. The overall objective of the project is to execute the legal procedures and additional studies which are required to reach the next stage in the preparation of the global project.

The study results in the delivery of the Final Design special development plan (RUP), which is execution as part of the Flemish spatial development plan (GRUP). The project also covers the exploratory phase of the Dutch state's Multi-annual programme for Infrastructure, Spatial Planning and Transport (MIRT) procedure offering as a result the preferred alternative and the functional integrated system design (FIS).

The project offers an optimal cross-border cooperation and adaption of the EU common standards and best practices. This is facilitated in the project by the realisation of an integrated cross-border Environmental Impact Assessment, a climate proofing analysis, and a cross-border Cost Benefit Analysis.

At the end of the project the project partners will have executed the legal procedures and studies which are required to reach the next stage in the preparation of the global project to be implemented on the TEN-T North Sea – Mediterranean Corridor, i.e. the elaboration phase.

The project is co-financed for 40% by the European Union with a maximum amount of 1.23 million EUR.

## 8. 2022-EU-DIG-5G HSL (CEF Digital)

**Project name:** 5G High Speed Line EURO LINK Paris – Brussels 5GHSL Eurolink

**Coordinator:** SNCF Réseau

**Scope:**

The 5G HSL Eurolink project targets to deliver an inception study to prepare implementation of 5G infrastructure along a rail cross-border section between Paris (France) and Brussels (Belgium), for the benefits of train passengers' connectivity and digitalization of rail operations.

The study will be carried out by a consortium of 4 members, involving two rail infrastructure manager and 2 RC from both countries. The scope for this common France – Belgium study encompasses the following activities:

- to identify target communication service requirements for railways undertakings and for passengers;
- to design implementation of 5G technology along the corridor, with a focus on MNO/Railway infrastructure sharing;
- model and service continuity at the border crossing;
- to define a cooperation model between Railways and MNO that maximize synergies for deployment and for long term cooperation and sustainability;
- to prepare a detail implementation plan, reusing existing assets of infrastructure, defining works and estimating cost;
- for building a 5G coverage that will deliver expected service capabilities;
- to evaluate business viability on the considered track section, to assess potential market failure for the corridor and for a long-term perspective of a large-scale deployment;
- to evaluate the feasibility of the technology on high-speed lines on one of the largest European lines linking Belgium, France and the tunnel to the United Kingdom.

The project is co-financed for 50% by the European Union with a maximum amount of 186.9k EUR.

## 9. 2023-BE-TM-FRONT

**Project name:** Future-proof rail connections on the Antwerp port platform

**Coordinator:** Port of Antwerp

**Scope:**

The project consists of the following activities:

- The renovation of the Lillo bridge, including rail tracks;
- The renewal of out-dated signalling railway equipment of railway line 223, section rail yard Oudendijk – Witte Molen;
- The renewal of out-dated signalling railway equipment of railway line 221, section Bayer – Vopak ACS (3 km);

The project part Infrabel is co-financed for 50% by the European Union with a maximum amount of 3.88 million EUR.

## 10. 2023-BE-TG-EuroCap-Rail

**Project name:** Upgrading works on two sections between Louvain-la-Neuve and Luxembourg on the North Sea-Mediterranean CNC (EuroCap-Rail) to increase speed

**Scope:**

The Global Project will contribute to the development of rail infrastructure on the pre-identified cross-border link Brussels – Luxembourg – Strasbourg (EuroCap-Rail project), situated on the Core Network Corridor North Sea - Mediterranean. It will facilitate international rail transport between three European capitals by 2030 through a high-performance rail link. The Global Project is defined as the section between Brussels and the border with Luxembourg (Belgian part of the EuroCap-Rail project to modernise the Brussels - Luxembourg connection).

The project concerns modernisation works on the following sections:

- Section Ciney – Haversin (L162) civil engineering + catenary;
- Section Grupont – Hatrival (L162) civil engineering + catenary + tracks.

This project consists of upgrading works that will make it possible to increase the reference speed to 160 km/h and a time saving of 1 minute in total. It will therefore reduce delays. At Global Project level, the total time savings in the line are expected to be between 22 and 37 minutes, depending on the number of train stops.

The improved performance in terms of travel time and reliability will enhance passenger experience and increase the competitiveness of rail transport compared to road transport.

This project and the Global Project will contribute to the objectives of the European Green Deal and the Sustainable and Smart Mobility Strategy of the EU by providing faster European rail connections, and to the modal shift towards a more efficient, safe and environmentally friendly transport mode. It will respond to the expectations of the citizens towards transit time reductions and increase service reliability.

The project part Infrabel is co-financed for 30% by the European Union with a maximum amount of 20.11 million EUR.

## *Other programs outside CEF*

### **11. Pioneers**

**Project name:** PORTable Innovation Open Network for Efficiency and Emissions Reduction

**Coordinator:** Port of Antwerp

PIONEERS brings together four ports with different characteristics, but shared commitments towards meeting the Green Deal goals and Blue Growth socio-economic aims, in order to address the challenge for European ports of reducing GHG emissions while remaining competitive. In order to achieve these ambitions, the Ports of Antwerp, Barcelona, Venlo and Constanta will implement green port innovation demonstrations across four main pillars: clean energy production and supply, sustainable port design, modal shift and flows optimization, and digital transformation.

This demonstration project of Infrabel consists of an IT platform connecting all stakeholders involved in freight transport within the port of Antwerp-Bruges. This platform aims to streamline collaboration improve communication and encourage modal shift. By bringing everyone together, the parties aim to create a more efficient and sustainable freight transport ecosystem.

Objectives:

- Digitisation of existing manual processes;
- Creating transparency in the end to end (E2E) supply chain through data collection (through the use of drone) and information exchange;
- Effective coordination of logistics processes of different actors in the transport chain;
- More efficient use of available rail infrastructure.

The project part Infrabel is co-financed for 70% by the European Union with a maximum amount of 1.06 million EUR.

## 12. LIFE

**Project name:** LIFE23-ENV-NL-LIFE NATURE-RAIL

**Coordinator:** ProRail

The main objective of the LIFE NATURE-RAIL project is the demonstration of a zero-chemicals and multimethod approach for vegetation control that can be applied to the inspection path in different railway environments.

To this end, ProRail will demonstrate three innovative vegetation control methods along operational rail tracks: cryogenic treatment, electro-weeding and a combination of slow growing grass and a mowing robot.

Infrabel do a first replication on the Belgian railway track to demonstrate cross border applicability of the methods. Both Infrabel and the International Union of Railways (UIC) will be involved from the beginning of the project to assure that ProRail's demonstration is setup and effectuated to take into account non-Dutch and country-specific characteristics affecting maintenance in the rail environment. The UIC will also contribute to stimulating further replication by other European rail infrastructure managers.

The results of the demonstrations will be processed in a cost-benefit analysis to determine the socio-economic performance of the three methods as input to replication tools and policy-making. It will also be used to develop evidence-based criteria for selecting the most appropriate method for a specific rail environment.

The project part Infrabel is co-financed for 60% by the European Union with a maximum amount of 310,9k EUR.