

# **EXHIBITION GUIDE**







The stand titles and descritptions in this guide have been submitted by the exhibitors.

### About the exhibition

D. 1

This year's Connecting Europe Days indoor and outdoor exhibition will showcase innovative projects and ideas that contribute to European transport infrastructure development.

The indoor exhibition will welcome over 80 exhibitors showing innovative transport solutions in three distinct spaces of the Lyon Convention Centre. Come to see exciting projects working on the future mobility electric vehicles and chargers, ITS and alternative and projects supporting this mobility with rail, maritime, IWW and road transport infrastructure!

The EU exhibition area will host organisations and programmes funding European transport projects, as well as a large presentation and exchange space.

The outdoor exhibition highlights different innovative technologies for the road sector, such as electromobility, fuel cells/hydrogen and biomethane.

It spotlights a range of alternative fuels vehicles, from passenger cars and light commercial vans to heavy duty vehicles and a mobile hydrogen refueling station and hydrogen bikes.

As in previous editions, we are also offering the popular opportunity to test-drive a number of alternative fuel vehicles. Don't miss the other half of the exhibition and join us outside!

The exhibition floor plan is at the end of this guide.



TENtec is the European Commission's information system to coordinate and support the Trans-European Transport Network Policy (TEN-T).

TENtec manages policy-related information by storing and processing technical, geographical, and financial data for the analysis, management, and political decision-making related to TEN-T and the underlying funding program, the Connecting Europe Facility (CEF).

The core TENtec module is OMC (Open Method of Coordination), which is accessible through the TENtec Portal.

Further improvements of TENtec are currently under development to allow an automatized exchange of data with Member States and other relevant stakeholders in the coming years. The content of the TENtec public viewer has been significantly enhanced and offers new features, such as an extended mapping and gap analysis for the alternative fuels infrastucture deployment or the mapping of C-ITS stations.









n **3** 

### **O2** European Climate, Infrastructure and Environment Executive Agency (CINEA)

The European Climate, Environment and Infrastructure Executive Agency (CINEA) has been established by the European Commission to implement parts of EU funding programmes for transport, energy, climate action, environment and maritime fisheries and aquaculture. The Agency has a key role in supporting the European Green Deal – one of the European Commission's main strategic priorities.

CINEA aims to support its beneficiaries, establish strong partnerships, deliver high-quality programme and project management, foster effective knowledge sharing and create synergies between programmes to support a sustainable, connected, and decarbonised Europe.





The European Climate, Infrastructure and Environment Executive Agency



## EU Global Gateway DG INTPA

Global Gateway is the European strategy to boost smart, clean and secure connections in digital, energy and transport sectors, and to strengthen health, education and research systems across the world.

Global Gateway is fully aligned with the UN's Agenda 2030 and its Sustainable Development Goals, as well as the Paris Agreement. Global Gateway aims to mobilise up to  $\in$  300 billion in investments.

Througha'TeamEuropeapproach', GlobalGateway will bringtogether the EU, its Member States and their financial and development institutions to mobilise the private sector to leverage investments for a transformational impact.







### Europe's Rail Joint Undertaking -**Rail Research and Innovation to make Rail** the Everyday Mobility



European partnership for rail research and innovation under the Horizon Europe programme and the successor to the Shift2Rail Joint Undertaking.

This partnership aims to accelerate research and development in innovative technologies and operational solutions. It supports EU policies and objectives for the rail sector, its competitiveness, and the European rail supply industry. EU-Rail accelerates the use of integrated, interoperable and standardised technological innovations necessary to support the Single European Railway Area.

The vision of EU-Rail is to deliver, via an integrated system approach, a high capacity, flexible, multi-modal and reliable integrated European railway network by eliminating barriers to interoperability and providing solutions for full integration, for European citizens and cargo. EU-Rail will help achieve faster uptake and deployment of innovation through funded projects. It promotes digitalisation and automation to reduce costs for the rail industry, increase capacity, and strengthen flexibility and reliability.

Europe's Rail Joint Undertaking (EU-Rail) EU-is the Its work is based on a functional system architecture shared by the sector, in coordination with the EU Agency for Railwavs.

> The objectives of EU-Rail have been set to address the EU policy objectives, rail sector vision, and the challenges inherent to the transformation of the rail system. Specifically, this will result in:

- Meeting evolving customer requirements •
- Improved performance and capacity •
- Reduced costs .
- More sustainable transport •
- Harmonised approach to evolution and greater • adaptability
- Reinforced role for rail in European transport and mobility •
- Improved EU rail supply industry competitiveness •

The stand of EU-Rail will be an opportunity to showcase innovative rail solutions of the currently running six flagship projects and eight exploratory research projects.

Contact: www.rail-research.europa.eu

@EURail JU

### p. **6**

### SGP SUD-OUEST

Grand Projet du Sud-Ouest - GPSO, Ligne Nouvelle Montpellier-Perpignan - LNMP, Ligne Nouvelle Provence Côte d'Azur - LNPCA



The ongoing major rail projects in southern France will play a crucial role in enhancing connectivity. These projects, namely the Grand Projet du Sud-Ouest (GPSO), the Ligne Nouvelle Montpellier-Perpignan (LNMP), and the Ligne Nouvelle Provence Côte d'Azur (LNPCA), are instrumental in providing efficient crossborder connections and maintaining international links at rail hubs.

Upon crossing the Pyrenees, they will establish an efficient transverse link between the Mediterranean and Atlantic corridors. They form a cohesive unit that will facilitate the creation of new rail links fostering new passenger and freight traffic on existing lines.

The GPSO, addressing the missing link in the Atlantic corridor, will connect Northern and Eastern Europe to the Iberian Peninsula, establishing a HSR network

encompassing Bordeaux, Toulouse, Barcelona, Zaragoza, and Bilbao in the longer term.

LIGNE NOUVELLE Montpellier Perpignan

Furthermore, the completion of LNMP and LNPCA along with European Rail Traffic Management System (ERTMS) installation on existing lines between France and Italy, the missing links in the Mediterranean corridor, will provide new outlets for the North Sea-Mediterranean corridor, of which the southern end is currently at Marseille. This extension will establish direct connections between Spain and Italy, as well as with the North Sea, thereby strengthening the structure and cohesion of the western part of the European Union, enhancing accessibility to southern Europe, and opening up the Mediterranean.

Among the main benefits are significant improvements in rail infrastructure, including the implementation of ERTMS. This initiative strengthens connections with neighbouring regions such as the Generalitat of Catalonia, the Autonomous Community of the Basque Country, and the Regions of Liguria and Piedmont. It also promotes enhanced trade between four countries and encourages a modal shift in freight transport from air and road to rail, leading to a drastic reduction in carbon emissions.

#### Contact:

www.sgpsudouest.fr www.ligne-montpellier-perpignan.com www.lignenouvelle-provencecotedazur.fr



The "Dutch Topcorridors" program is a program in which several authorities work together to combine their investments in optimal use of existing infrastructure. These are: Ministry of Transport, Six Provinces (South Holland, Gelderland, North Brabant, Limburg, North Holland, Zeeland), Four Port authorities (Port of Rotterdam, Port of Amsterdam, Port of Moerdijk, North Sea Port), Rijkswaterstaat (road and water management), ProRail (rail management).

From this program, joint projects are initiated and affiliated which are also submitted and granted for CEF funding. Affiliated projects include for example Rhombus Upside, RH2INE, several rail infrastructure projects of ProRail and Rijkswaterstaat and the Port of Rotterdam. To show the strength of this cooperation we present these projects and the program at our stand at the exhibition side by side.



The Dutch Top Corridors want to enter into international cooperation with governments and industry of neighbouring countries along the TEN-T corridors on cross-border projects focusing on economy, environment and sustainability, social/safety and quality of the corridors that strengthen the international freight corridors!

**FERROVIENORD** 



Milano Malpensa (MXP) is a key airport in northern Italy at the crossroads of the Rhine-Alpine and Mediterranean TEN-T corridors.

The Global Project "Accessibility from the North to Malpensa", promoted by FERROVIENORD in partnership with SEA Milan Airports, started in 2010 with the 4.2 km railway extension between Terminal 1 and Terminal 2, completed in December 2016. In 2023 the second phase of the Global Project has been initiated with the works for the construction of the missing link between Terminal 2 and the Simplon line (MXP-NLINE Action).

This Action regards the completion of the ring around the airport, connecting Malpensa to Switzerland. Furthermore MXP-NLINE will integrate the airport into the TEN-T network, linking the Rhine-alpine corridor with the Mediterranean one and the high-speed line between Turin and Milan, avoiding the passage from the Milan hub. The missing link under construction will have a length of approximately 4.6 km of new track in natural, artificial and trench tunnels and has been designed to limit the impact on the territory as much as possible by activating environmental monitoring for fauna, flora, noise, vibrations and groundwater.

Milan Airports

Works will be completed in 2025, with the activation of the rail route in December.

**FNM**GROUP

The value of the investment for the realization of the completion of the works is  $\notin 211,340,000$ , with a contribution of  $\notin 63,402,000$  from the European Union within the "CEF - Connecting Europe Facility - 2019 CEF Transport MAP call". The investment regarding the Global Project amounts to about  $\notin 400$  million (contribution of  $\notin 89.9$  million from TEN-T/CEF Funding).

These 15 years of air-rail partnership (in-house engineering NORD\_ING and SEA Milan Airports) have led to a commercial success in terms of the number of passengers transported on the Malpensa-Milan route (4 million in 2022 and 3.6 million in the first nine months of 2023).





n **9** 

### MAGPIE : sMArt Green Ports as Integrated Efficient multimodal hubs



The MAGPIE project wants to "shape the green port of the future". MAGPIE's ambition is to force a breakthrough in the supply and use of green energy carriers in transport to, from and within ports. We will create energy efficiencies and support developments that make green-energy carriers available to users. By demonstrating and implementing smart solutions in the realm of digitalization and automation, we will facilitate and contribute to the decarbonization of port-related transport.

Seaports and inland ports will play a major role in boosting the use of cleaner technologies, green energy carriers and logistics concepts in maritime transport, port operations and hinterland transport (road, rail, barge, and pipeline) to reduce GHG emissions.

The Port of Rotterdam, the largest seaport in Europe with many transport connections for all modes of transport, is frontrunner in the energy transition and has the vision to become a zero-emission port by 2050. Together with the fellow ports HAROPA, Sines and DeltaPort (which is an inland port) the Port of Rotterdam supports the European Green Deal sustainability goals.

Our project is carried out under the framework of call H2020-LC-GD-2020 entitled "Building a low-carbon, climate resilient future: Research and innovation in support of the European Green Deal". This call is placed under the responsibility of the fund Horizon 2020. Granted public funding total amounts to 25 million  $\in$ , for a period comprised between 1st October 2021 and 30th September 2026.

The MAGPIE consortium collaborates a lot with its sister project PIONEERS, which is led by the Port of Antwerp and has benefitted from the same grant from the EU Commission. On our stand, some documents and communication material from PIONEERS will be available as well.



## 09

n **10** 

### VIEWWS - Unlocking navigation potentialities of Veneto IWW system.



### A cluster of stakeholders to promote Italian inland waterways.

VIEWWS project is representing one of the main ongoing initiatives, also financed by CEF, aimed at progressively remove bottlenecks and criticalities hampering the navigation of one of the main inland waterways of Norther Italy, the Fissero-Tartaro-Canalbianco.

Infrastrutture Venete S.r.l. is the promoter and unique beneficiary of the project as well as one of the main stakeholders of a wider set of actors committed in the management and promotion of inland waterways at national level. Indeed, together with Interregional Agency for the Po River (AIPo), the Unione Navigazione Interna Italiana (UNII), the Province of Mantua and the Intesa Interregionale per la navigazione interna sul fiume Po is representing in this occasion a cluster of key players of the Italian IWW system.

All of them, under the coordination of the main Regions

of the norther part of Italy (namely Veneto, Lombardia, Emilia Romagna and Piemonte) are developing synergies aimed at unlocking the potentialities of IWWs along the main axis represented by the Po River, the most important and longest Italian river, which is horizontally crossing one of the most productive, populated and (inevitably) polluted areas of Southern Europe and where IWW could make the difference by supporting more sustainable transport opportunities.

In this purpose, considering that all the above-mentioned stakeholders are directly or indirectly involved in EUfinanced initiatives (encompassing in particular CEF 1 and 2 ongoing and under-evaluation projects and Horizon projects) promoting the improvement of IWW infrastructures, the opportunity given by a stand at the Europe's mobility flagship event in Brussel was considered a challenging occasion to promote and further enhance the cooperative dialogue among these actors, on a higher and definitively strategic stage.

Contact:

https://www.win-itproject.it/ info@win-itproject.it

## **10** SIEMENS MOBILITY GMBH

In line with the EU's objective, Siemens Mobility's Global Project aims at deploying ETCS Baseline 3 on the entire Vectron locomotive fleet. With around 2.300 units sold until the end of 2023, the Vectron platform is among the most popular electric locomotives in the EU, equally suited for passenger and freight transport.

Throughout the different project phases, ETCS Baseline 3 will be gradually deployed by retrofitting or upgrading the Vectron fleet already in operations, as well as by the fitment of new built locomotives. Due to the high number of vehicles already in operations and the increasing number of orders for new vehicles in recent years, the equipment of the Vectron locomotive fleet with ETCS Baseline 3 has a significant effect for the deployment of ERTMS on the TEN-T.

In this context, the Project 2019-DE-TM-0161-W covers the ETCS Baseline 3 prototype phase to prepare the upgrade of the Vectron fleet currently in operation and future fitment of new built locomotives. The Project VECTRON FIT4B3 covers the serial onboard deployment of ETCS Baseline 3 on 300 new built Vectron locomotives by means of fitment. In addition, a large scale serial upgrade programme is currently being launched, which covers around 500 international locomotives in operations.

SIEMENS

As a result, these projects will allow to substantially increase the number of vehicles equipped with ETCS Baseline 3 operating on the TEN-T, thus delivering a strong contribution to achieve the EU objectives in the field of ERTMS.

CEF projects:

- On-board deployment of ETCS Baseline 3 for Siemens locomotives operating on the TEN-T (2019-DE-TM-0161-W)
- Fitment of Vectron locomotives with ETCS Baseline 3 (21-DE-TG-VECTRON FIT4B3)

#### Contact:

https://www.mobility.siemens.com/global/en/portfolio/ rolling-stock/locomotives.html @SiemensMobility

### p. **12**



## Active Cities Interreg North Sea

Active mobility increased for sustainable zero-carbon urban multimodality, through human-centric planning, mobility hubs and behaviour change

Active Cities increases the share of active mobility (walking, cycling) in cities for sustainable zero-carbon multimodality, through: human-centric planning of streets, green-accessibility of mobility hubs (train stations, schools) and behaviour change, putting citizens (back) at the core.

Walking and cycling are age-old methods of mobility, emission-free, and healthy, but stagnant or in decline in cities' multimodal urban mobility systems. Streets and public spaces are car-centric, mobility hubs do not sufficiently facilitate or promote walking and cycling in a multimodal journey, and more people should consider it an attractive option as part of their journeys.

Active Cities runs pilots in 8 European cities in 7 countries to demonstrate innovative transnational methodologies and technologies in urban planning, mobility planning, and social innovation (co-creation, campaigns, incentives). Transnational knowledge and network partners enrich and customise existing tools, evaluate and compare transnational impact and provide an evidence-based roadmap for urban and mobility planners.

The cities bring urban mobility typologies and work with various target groups, incl. minorities, increasing transnational replicability and scalability. Only together the cities have sufficient opportunities to experiment and adopt (others') successful approaches, around their (limited) large scale urban transformation investments and mobility schemes.

Uniquely, in Active Cities, walking and cycling are planned together, rather than separately, and as an integral part of the multimodal system to decrease the individual car dependency and make mobility affordable and available to all.

### Contact:

https://www.interregnorthsea.eu/active-cities https://twitter.com/EUActiveCities

## 12 MOVE21

n 13



Multimodal and interconnected hubs for freight and passenger transport contributing to a zero emission 21st century.

MOVE21 is an EU-funded Innovation Action under the Horizon 2020 Programme, focusing on six European urban nodes (Oslo, Gothenburg, Hamburg, Munich, Bologna, Rome), all located along the TEN-T Scandinavian Mediterranean corridor. It aims at transforming European cities and their surroundings into smart zero emissions nodes for mobility and logistics. This is done by adopting an integrated approach in which all urban systems are connected, and which addresses both goods and passenger transport together. The overall innovation methodology is based on a user-centric and dynamic open innovation process. The three Living Labs (Oslo, Gothenburg, Hamburg), under real-life conditions, aim to co-create, test, deploy, and upscale (combinations of) technological and non-technological mobility innovations. Demonstrators focus on different types of mobility hubs, integrated transport services, and new governance models and methods.

MOVE21 launched the Scan-Med Observatory to prepare

cities for the new TEN-T regulation. The Observatory, with the new legislation having been passed, will enter a new phase as an open platform for urban nodes on the Scan-Med corridor. It represents a unique opportunity for cities and local authorities to bring the discussions on TEN-T and urban nodes to a more operative ground. Discussion and interaction with the EU Coordinator of the TEN-T Scandinavian – Mediterranean corridor occurred in the past months.

Therefore, MOVE21 is a highly relevant project for the Connecting Europe Days and ready to bring its approach and expertise of the first 3 years of work to EU policy makers, financial institutions and industry experts.



https://move21.eu/ https://twitter.com/move21eu

### p. 14 EUROPEAN AIRPORTS: SHOWCASING AFIF SUPPORTED PROJECTS (FUNDED BY CEF)

Alternative Fuels Infrastructure Facility (AFIF) is a financing instrument to support innovation and improvements in the European alternative fuels infrastructure, with the goal of decarbonising transport along the TEN-T network.

European airports involved in AFIF have invested in the installation of electric charging stations, hydrogen refuelling points and other projects aimed at decarbonising transport in and around their platforms.









LAURELIN is a R&D project, with a duration of 48 months, that will be focused on the optimization and improvement of CO2 hydrogenation process, to obtain methanol as renewable fuel (TRL3). Main objectives are related to the improvement limiting factors: selectivity, yield, and energy requirement. The strategies adopted by LAURELIN project to achieve the planned objectives are the following:

a) Research and development in disruptive multifunctional catalyst systems. LAURELIN is focused on methanol synthesis from selective CO2 hydrogenation. A clean process that produces water, CO, and methane.

b) New technologies for CO2 hydrogenation. CO2 hydrogenation with very low energy demands will be addressed by introducing three advanced synthesis technologies employing: Magnetic Induction, Non-Thermal Plasma Induction and Microwave technologies. These three technologies are suitable to employ intermittent renewable energy supply systems for selective CO2 hydrogenation, which is based on to convert renewable power energy to chemicals. One of

the most remarkable aspects of the LAURELIN project will be the close collaboration with Japanese partners to share and increase knowledge on catalyst systems (mainly about high porous supports as zeolites) focused on hydrogenation processes, as well as to increase impact by fast future industrial and market deployments.

LAURELIN partnership is composed by 10 partners, 6 of them are from 4 EU countries (Spain, Germany, Netherlands, and Belgium), 2 from the United Kingdom and 2 partners are from Japan. Furthermore, it is composed by Research Organisations, Higher Education Institutions and SME companies.

Contact: https://laurelin.eu/ @LAURELIN\_EU

## **16 15 RAIL-TO-AIR**

The RAILWAY TUNNEL allows to filling the gap of -12 m in level created by the realization of the new "Passante ferroviario di Torino" (HC/HS connection to Milan) which led to the interruption of continuity between the highspeed railway line and the railway line connecting the airport. Basically, this activity is part of a wider intervention that was identified as the global project, encompassing both the tunnel as well as the upgrade of the entire line up to Ceres (TORINO-CERES).

The RAILT-TO-AIR Action was designed with the aim of identifying additional resources to be used to further finetune the interventions and enhancing safety / security features.

The project contains Banalizzazione represents the upgrade of technological system and superstructures in order to allow a mixed use of railway tracks in a bidirectional way which is now not yet available. This Activity in particular represents the enhancement leveraged thanks to the CEF Co-financing and will lead to the improvement of safety and security along the entire railway line connecting the urban node of Torino to the Airport and up to Ciriè.

### **Contact:**

https://www.regione.piemonte.it/web/temi/mobilita-trasporti/rete-ferroviaria/collegamento-ferroviario-torino-aeroporto



## **16** SCALE-UP

### ("Scale up user-Centric and dAta driven soLutions for connEcted Urban Poles")

SCALE-UP is an EU-funded Innovation Action, focusing on 3 European urban nodes (Madrid, Antwerp, Turku) and exploring options to render them better connected and climate resilient while further developing complex multi-modal transport systems. SCALE-UP stands for "Scale up user-Centric and dAta driven soLutions for connEcted Urban Poles".

The main outcome of the Research & Innovation Project are at least 28 newly developed innovative mobility measures to ensure the vertical (governmental) and horizontal (dimensional) upscaling of urban mobility. Most of the measures are already deployed in the three cities at the current moment or they will be rolled out during the summer of 2024. They include a diverse catalogue of individual actions to tackle and scale-up the successful uptake of multi-modal transport beyond the city centres and the functional urban areas up to the TEN-T level.



Some examples include multi-modal hubs, improved MaaS platforms and enhanced capacity of local authorities to receive, analyse, interpret and use actionable mobility data in their policies. An aspect that unites all measures it to foster cooperation and coownership across governance levels and authorities, to ensure a truly collaborative and support local network.

SCALE-UP is therefore a highly relevant project for the Connecting Europe Days and offers its knowledge and expertise of the first 3 years of the project to other policy makers, financial institutions and industry experts with best practice examples and founded know-how.



### Contact: https://www.scale-up-project.eu/ https://twitter.com/ScaleUpProject

### Exhibition Guide

## 17 KEYSTONE

D. 18

## **KEYSTONE**

KNOWLEDGEABLE COMPREHENSIVE AND FULLY INTEGRATED SMART SOLUTION FOR RESILIENT, SUSTAINABLE AND OPTIMIZED TRANSPORT OPERATIONS

The overreaching goal of KEYSTONE is to support the development of a sustainable, efficient, and safe transport system, allowing enforcement authorities to access data for the purpose of checking compliance with rules applied in the transport of goods and passengers.

The aim is to tailor standardised digital solutions that can be used from several realities to standardize the transport system. To demonstrate the validity of the solutions proposed, an app will be developed so that two highly diverse pilots can prove the efficiency of the KEYSTONE's innovation. Using the gained experience to develop a seamless, interoperable, and intermodal digital transport ecosystem that can be replicated at European level.

The KEYSTONE digital solutions consists of standardised APIs for data and information sharing between transport enforcement authorities and logistics operators based on a federated approach allowing to reduce the costs of logistics thanks to more efficient operations and interoperability, to reduce the impact on the environment thanks to data sharing, the possibility to consolidate flows and to improve safety thanks to seamless information exchange with enforcement authorities and the possibility to foster the acceptance of the CCAM solutions.







Cities and regions in STRING join together to connect and align politically, industrially and geographically to accelerate the green transition and unlock new potential for green growth for the 14 million people in the megaregion. STRING members work to remove traffic bottlenecks and deploy sustainable transport infrastructure to ensure a connected megaregion.

One of the largest STRING-projects is the CEF-funded hydrogen corridor project GREATER4H. GREATER4H consists of developing a hydrogen corridor by deploying 14 hydrogen refuelling stations in the STRING Megaregion from Oslo to Hamburg. STRING GREATER

The project establishes a public-private partnership between local and regional governments and three private partners on the green transition of road transport in the STRING region. The project coordinator and lead is Region Schleswig-Holstein and the project has received 30% co-funding from the Connecting Europe Facility (CEF) programme.

With this project, STRING wants to accelerate the implementation of green hydrogen infrastructure and contribute to achieving European and national emission reduction targets and make Northern Europe a frontrunner region for the deployment of hydrogen.

#### **Contact:**

www.greater4h.com www.stringmegaregion.org @stringorg





Modernisation of the fairway, expansion of the quays and improvement of navigation in the Internal Port in Gdansk

The expansion and modernization of the Port's infrastructure contributed to equalizing the parameters of most quays located at the Inner Port, improving their accessibility for larger ships and improving the quality of ship service. The effect of the project was the elimination of the bottleneck in the TEN-T core port and the development of the Baltic-Adriatic corridor.

The port infrastructure has been adapted to the new transshipment handling structure. By improving the navigation parameters of the waterway, the project is important from the point of view of improving the conditions and safety of navigation in the Inner Port. The port canal has been widened and deepened, providing ships calling at the Port of Gdansk with greater manoeuvring space while reducing navigational risks.

As a result, parameters such as the time and cost of reloading ships and cargo improved, which contributed

to the increase in the port's competitiveness. Along with the modernization of the waterway, several quays were expanded, which resulted in the extension of their mooring lines and improvement of their technical parameters.

In order to improve navigation conditions in this part of the port, the profile of the waterway was also adjusted. The project "Modernization of the fairway, expansion of quays and improvement of navigation in the Internal Port of Gdańsk" was an undertaking which - thanks to EU support - was another step of the largest Polish port, the Port of Gdańsk, towards improving service standards, increasing the competitiveness of the port and enhancing its position in the Baltic Sea.







Policy Area (PA) Safe actions focus on many aspects which can improve maritime safety and security including resurveying of shipping routes, improving safety of navigation by means of e-navigation and new technology, emergency preparedness and winter navigation.

PA Ship actions include creating infrastructure for alternative fuels in the Baltic Sea region, as well as supporting measures that reduce emissions from ships, such as technical installations or issues of enforcement of environmental regulation for ships operating in the Baltic Sea.

WINMOS III - Winter Navigation Motorways of the Sea III The icebreaking service in northern Baltic Sea is an important part of the maritime infrastructure and is a prerequisite for sea transport during wintertime. Icebreaking and winter navigation is also a key priority in the Policy Area Safe of the EU Strategy for the Baltic Sea Region.

WINMOS III is a part of a Global Project that aims at ensuring year-round maritime transport from and

to harbours in EU's northernmost waters where during wintertime large parts of the sea surface is covered by ice. This is done in ongoing co-operation between the neighbouring nations of Sweden, Finland, and Estonia, by continuously developing the winter navigation system and safeguarding the required icebreaking resources for future needs.

These countries have long history of cooperation when it comes to winter shipping and icebreaking and have several political agreements in place, notably a Memorandum of Understanding (MoU) on deepened cooperation that was signed by the three countries in 2015. The icebreakers of Sweden and Finland are operated as one common fleet.

The main objective of WINMOS III is in line with the Global project, as it aims to ensure sustainable, functional, and efficient cross-border maritime transport all-year-around and mitigate the barrier caused by the ice during winter in the Baltic Sea. The project will ensure and improve the functionality of the winter navigation system.

#### Contact:

https://www.eusbsr.eu/pa-safe-about https://www.eusbsr.eu/pa-ship-about @PA\_Ship @sjofartsverket1



**ABS 38** 

Upgrading of the Munich-Mühldorf-Freilassing-Border D/A section of the TEN-T core network corridor Rhine-Danube (commonly referred to as "ABS 38")

### Munich to Vienna in 3.5 hours

Travel faster and greener than ever. To bring travel time down to 3 hours and 30 minutes and help meet Europe's decarbonisation goals, Deutsche Bahn (DB) is transforming the rail network of Southeastern Bavaria. Building on a rich railway history, the region will once again be at the heart of a connected Europe in the Rhine-Danube corridor.

At its core, the project "Munich-Mühldorf-Freilassing" will upgrade the existing 145 km of infrastructure between Munich, Mühldorf and the Austrian border near Salzburg to a fully electrified, double-track line. With speeds of up to 200 km/h and a shorter overall distance than the current congested route via Rosenheim, the upgraded line will be the backbone of long-distance connections between Southern Germany and Austria.

For Southeastern Bavaria, the upgrades will not only



reconnect the region to international rail services more than a hundred years after the famous "Orient Express" last passed through Mühldorf. The project is also designed to add muchneeded capacity for regional and suburban lines and establish new connections, such as a direct route from Salzburg to Munich's international airport.

Home to one of the most important clusters of chemical industry, the project will finally integrate Southeastern Bavaria into Europe's modern freight rail network. That is why DB is also electrifying the branch line to the industrial hub of Burghausen. The project is key for the modal shift from road to rail and from diesel to electrification just as the EU's economy is transitioning to carbon-neutrality.

With construction starting in 2027, local residents can expect a new quality of life with reduced noise and air pollution by the mid-2030s. Currently, DB is concluding the planning and moving into the approval stage to bring this transformative project to realisation.





GREEN C PORTS Providing a suitable array of digitalisation tools and technologies to support port environmental sustainability and performance of port operations in the TEN-T Core Network.

This project will address six business cases consisting of prototypes and pilot tests that will be implemented in different European ports and that will serve as a basis to test innovative technologies such as IoT, big data or predictive analysis using artificial intelligence models. In short, this project will reduce the impact of port operations in cities, control emissions from ports and ships and optimize cargo handling in the main European ports.

I Rail Improving interoperability and safety in European rail freight transport through the digitalisation and use of TAF TSI standard (Technical Specifications for Interoperability applied for Telematics Applications for Freight).

### iTerminals

Embracing the 4th Industrial Revolution at Port Container Terminals through the deployment of IoT and Big Data technologies in operations, safety, energy efficiency and maintenance. This initiative comprises a study with pilot deployment in real operations at



strategic European port-container terminals.

EALING Studies and Ealing Works

Accelerating the effective deployment of OPS solutions in EU seaports and preparing the electrical grid of the Port of Valencia for Onshore Power Supply through the construction of a new electrical substation.

H2PORTS Testing the technical and economic feasibility of hydrogen and fuel cells technology in the maritime-port sector.

Specifically, within the framework of the project, three pilots will be tested under real conditions in the port of Valencia. Two innovative solutions based on FC technologies: a Reach Stacker and a terminal tractor and a mobile hydrogen supply station that will provide the necessary fuel to guarantee the continuous work cycles of the aforementioned equipment.



### Contact:

https://greencportsproject.eu / @greencports https://irailproject.eu / @IRAIL\_project www.iterminalsproject.eu / @iterminals https://ealingproject.eu/ / @ProjectEaling https://h2ports.eu/ @H2Ports





The Wunderline: Borderless European rail connection between Germany and The Netherlands

Wunderline: Connection Europe, connecting regions

Wunderline, the cross-border railway connection between Groningen (the Netherlands) and Bremen (Germany), forms a strategic link on the TEN-T comprehensive network and plays an important role in boosting the socio-economic development and liveability of the German-Dutch northern border regions.

The Wunderline project partners perform various infrastructural works (e.g. track-doubling, improving railway stations, adjusting signalling systems) to further upgrade the existing railway connection. These works will result in a significant reduction of travel times between Groningen and Bremen (and vice versa). The connection also accommodates cross-border commuting and contributes to the accessibility and liveability of the northern border region by establishing an integrated chain mobility. In doing so, the project aims to establish an almost seamless door-to-door experience that encourages passengers (students, commuters and tourists) to use the train more frequently. Over twenty Dutch and German municipalities along the railway line as well as several organisations responsible for public transport participate in a cross-border network to improve chain mobility. This form of regional cooperation in the context of a railway improvement project makes the Wunderline unique in Europe.

The Groningen-Bremen trajectory forms the linking connection towards the North-Sea Baltic TEN-T Corridor. Upon completion of the infrastructural works, the Wunderline railway connection can serve as a gateway to Scandinavia and strengthen the connectivity towards the Nordic countries.

With the support of the EU, Wunderline can become a frontrunner in the transition towards a climate-neutral economy. In February 2019, an international cooperation agreement to realise the Wunderline was signed.

Contact: www.wunderline.eu @Wunderline\_NL @Wunderline\_DE



AWARD - All Weather Autonomous Real logistics operations and Demonstrations

The C-Roads Antwerp-Helmond project has the ambition to integrate cooperative intelligent transport systems (C-ITS). To this end, it will work with services such as intelligent speed assistance (ISA), urban vehicle access regulations (UVAR), and (urban) mobility services (buffering of trucks, prioritisation, and multi-modal information). The combination of these services should lead to better road-safety and liveability.

Both cities, Antwerp in Flanders, Belgium, and Helmond in The Netherlands, will deploy, test, and evaluate the combined services for six months on the Flemish TEN-T Network near Antwerp and along the urban nodes of Antwerp and Helmond. The so-called Day 1 and Day 1.5 C-ITS services will be made available for different types of users like private drivers, professional truck drivers, and active mobility users.



As both pilots will be part of the C-Roads platform, all services will be provided by hybrid communication and will apply with the C-Roads requirements and specifications. They will be made available in the vehicles by (i) the use of on-board units (OBU) which also allows the combined implementation of C-ITS and ISA, and (ii) by smartphone applications whereby one specific for truck drivers.

The C-Roads Antwerp Helmond consortium consists of 9 partners: Tractebel Engineering (coordinator), Transport & Mobility Leuven, Lantis, V-Tron, Be-Mobile, the municipality of Helmond, the city of Antwerp, Hogeschool PXL, and Yunex. The project started end of 2022 and runs for two years.

#### **Contact:**

https://www.croads-antwerpen-helmond.eu/ https://twitter.com/cRoadsAntHel



TELT is the binational public promoter responsible for the realisation and operation of the cross-border section of the freight and passenger Lyon-Turin railway line.

Founded in 2015 by the Italian and French states, the company coordinates the design and construction of the 65 km of railway between Susa, in Italy, and Saint-Jean-de-Maurienne, in France. The main element of the project is the Mont Cenis base tunnel: an infrastructure consisting of two tubes of 57.5 km each, 4 access admits, 2 international stations, 1 underground safety site, 4 ventilation shafts and 204 safety bypasses.

The base tunnel is intended to replace the historic Fréjus tunnel for logistics and mobility in the western Alpine region, contributing to the achievement of the climate neutrality goal set by Europe. Indeed, the project is part of the Mediterranean Corridor of the European TEN-T network.

TELT currently coordinates 10 construction sites, where 2,500 people are employed, and has completed the contracting process for all civil works in France and in Italy.



Since 2015 TELT has joined the United Nations Global Compact and is committed to creating value in the territories crossed by the new line - the Susa and the Maurienne valleys - through sustainable development, innovation and training projects.



## P. 27 26 RAILWAY EXPANSION PROJECT ULM-AUGSBURG



The railway line between UIm and Augsburg is one of the busiest in southern Germany and closes the gap between Stuttgart and Munich. The railway expansion project UIm–Augsburg will create more capacity and bring many opportunities for the region.

Although it is a long-distance railway project, local transport also benefits from it. Today, freight, local and long-distance trains share the tracks. With two additional tracks, we are creating new capacity: By separating the fast from the slow traffic, local transport will become more reliable and punctual. The new capacity will also allow more trains to run, and the journey time will be shorter: Between Augsburg and Ulm it should be no longer than 26 minutes, between Augsburg and Ulm via Günzburg no longer than 40 minutes. Besides, the two additional tracks are to be planned throughout for a maximum speed of up to 300 km/h and suitable for freight transport. The basis for this project is the 2030 Federal Transport Infrastructure Plan and the nationwide integrated regular interval timetable "Deutschlandtakt".

Today, the preliminary planning of the project takes place. Which of the four variants will be realized or whether there will be combinations remains to be seen. We expect the results of the spatial impact assessment procedure and the route selection process in the course of 2024. The results will be used in consultation with the Federal Ministry for Digital and Transport and the Federal Railway Authority to determine the preferred option, which will be submitted to parliamentary referral in 2025.

The railway expansion project Ulm–Augsburg is not only contributing to mobility transition and green mobility in Germany. It is also important at European level. The railway line Ulm–Augsburg is part of the Rhine-Danube corridor and plays a major role for the transnational alliance "Main Line for Europe".



P. 28 Centralny Port Komunikacyjny (CPK)

Centralny Port Komunikacyjny is a planned transfer hub between Warsaw and Lodz, which will integrate air, rail and road transport. The development envisages the construction of the CPK Airport located 37 km west from Warsaw and covering the area of 3,000 ha. During the first stage the airport will handle 40 million passengers a year.

The CPK will include railway investments: railway nod in the airport's close vicinity, as well as railway connections within Poland which will enable a transfer between Warsaw and largest Polish cities in less than 2.5 hours. The investment should provide employment for over 150,000 people. The Airport City will be created within the CPK proximity and will include fair, congress and conference centres, R&D facilities, as well as offices.



#### Contact:

https://www.cpk.pl/pl/ https://twitter.com/CPK\_P



Europe's Rail Flagship Project 5 - Transforming Rail Freight in Europe FP5 TRANS4M-R

Knorr-Bremse's Digital Automatic Coupler 'FreightLink' for freight cars is paving the way for the upgrade of rail freight transportation into the digital age. First, because they are automating the train coupling process, which is currently still manual. And second, because their electrical interfaces will enable the automation and digitalization of the entire rail freight transportation sector.

Knorr-Bremse is a member of the "European DAC Delivery Programme" (EDDP) and a founding member of the Europe's Rail Joint Undertaking. As such, the company is playing a key role in the development of an impending migration to the Digital Automatic Coupler. The retrofitting program involves up to 500,000 freight cars and 21,000 locomotives throughout the European Union.











Contact: AUA https://res4live.eu https://twitter.com/RES4LIVE



### ACCESS2NAPA; RTALF; TRIESTERAILPORT

The cluster is compsed by three projects, all related to Port's improvements are the following:

ACCESS2NAPA: The main goal is supporting the development of NAPA ports as efficient and sustainable entry and exit points for goods. The Action is related to studies and designs; no works are financed within ACCESS2NAPA Action.

- Improvement of the maritime accessibility to the ports involved in the Action;
- Improvement of the land accessibility to the ports involved in the Action;
- Contributing to the decarbonization of the maritime activities in the ports of Ravenna and Trieste (Onshore Power Supply, also called cold ironing). This will allow ships at berth to turn off engines and be plugged to electrical supply point, avoiding pollutant emissions.

RTALF: Railway Terminal and LNG Facility project is co-financed by the Connecting Europe Facility and is part of a Global project to develop the Port Sector n. 4 of the core maritime Port of Trieste, which is





located on both the Baltic-Adriatic and Mediterranean core network corridors. The activities envisaged by RTALF aim to increase competitiveness of the port. In particular, RTALF covers all key studies for guaranteeing a sustainable development of the Port of Trieste, and in particular how to reorganize and develop the operational port areas close to the Timber Terminal and the Servola steel factory.

TRIESTERAILPORT is co-financed by the Connecting Europe Facility and is part of a Global Project of the Port Network Authority of the Eastern Adriatic Sea, which aims to upgrade the railway infrastructure of the Port of Trieste, including Campo Marzio, Aquilinia and Scalo Legnami stations, as well as the last mile interconnections among them. The Action is located in the core maritime Port of Trieste on the Baltic-Adriatic and Mediterranean core networks.

### **Contact:**

https://www.port.ravenna.it/autorita-di-sistema-portuale/ progetti-europei/progetti-in-corso/progetto-access2napa.html



Developing transport infrastructure in the Port of Roenne to support transportation activities of Offshore Wind Farms in the Baltic Sea - Baltic.Sea.OWF.port

Port of Roenne is the green centre of the Baltic Sea.

Since 2020, the port has hosted several offshore wind installation projects in the southern Baltic Sea. At the same time, the port has continuously been expanded to accommodate bigger and bigger offshore wind projects better.

In 2025, the port will have finished several expansion projects to create a future-proof port that can serve the offshore wind industry and, at the same time, serve the local community of the Danish Island of Bornholm.

Port of Roenne is a TEN-T Comprehensive port with almost 2 million passengers and 1.3 million tons of goods per annum. The port has five ISO certifications and was the first Danish port to be certified in Sustainable Development Goals.



Besides working with offshore wind, the port is deeply involved in transitioning the maritime industry to alternative fuels. Port of Roenne has hosted a REACTEUfunded study of the possibility of local production of green fuels for shipping based on Power-to-X technologies. The port is also part of the Horizon project BalticSeaH2, which focuses on creating an integrated hydrogen economy around the Baltic Sea. Port of Roenne is focused on how hydrogen and hydrogen derivates can be stored and bunkered in the port.

#### Contact:

www.portofroenne.com https://www.linkedin.com/company/rønne-havn/



Supply Chain Valley (SCV) is a collaboration between businesses, knowledge institutions, public authorities and the environment: the 'Quattro Helix'.

This is a Euroregional initiative aimed at companies involved in the manufacturing industry and agro-food and logistics sectors located in the North Limburg region and the Euregion. Supply Chain Valley, which is organised, funded and managed by the business community, is located in the heart of Venlo, strengthening the region as a supply chain and logistics hub for Northern Europe.

The supply chain connects the logistics and agro-food sectors and manufacturing industry within the region. All relevant organisations working in supply chain management, logistics and mobility collaborate as part of Supply Chain Valley, leaving plenty of room for their own activities. Collaboration makes us stronger in terms of thinking and implementation capacity.



Contact: www.supplychainvalley.com



FAIRway Danube II is a collaborative transnational project involving Austria, Slovakia, Hungary, Croatia, Bulgaria, and Romania, aiming to enhance fairway conditions along the Danube and make inland navigation more climate-resilient, sustainable, and attractive. It follows the successful CEF flagship project FAIRway Danube, which significantly increased knowledge about shallow sections and rehabilitation measures.

FAIRway Danube II aligns with the Fairway Rehabilitation and Maintenance Master Plan adopted by 10 Danube Ministers of Transport in June 2022, referenced in the Rhine-Danube Corridor Fifth Work Plan of the European Coordinator.

Key activities and outcomes include:

1. Installation of Sensors: Fixed and mobile sensors will measure the Good Navigation Status, enhancing accuracy in assessing fairway depth, water level, and bridge clearance for optimal Danube navigability.

2. IT Monitoring Systems Upgrade: National and transnational waterway IT-monitoring systems will be upgraded, improving capabilities, efficiency, deci-



sion-making processes, and information provision to users.

3. Water-Level Forecast Extension: Addressing climate change impact on water levels, an extension in lead-time for water-level forecasts will enhance planning reliability.

4. Flexible Infrastructure Pilot Projects: Implementation of projects for flexible infrastructure elements will enhance climate change resilience, providing a near-nature solution to increase fairway depth during low water periods.

5. Mooring Place Upgrades: Existing mooring places in Austria and Romania will be upgraded to enhance infrastructure quality, focusing on safety and crew mobility. Green energy solutions for shore power will be incorporated.

6. Additional Mooring Place Investments: Plans for additional investments in mooring places in Austria, Slovakia, and Croatia aim to facilitate new and supplementary mooring places in these regions.

#### **Contact:**

www.fairwaydanube2.eu @via\_donau



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

The study project is part of a European project of common interest (global project) titled Rail Gent Terneuzen (RGT). The RGT project is the result of years of preparations and political negotiations and has the objective to realise physical infrastructure improvements to upgrade the existing railway section Gent (BE) – Terneuzen (NL).

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 envisioned scope of the upgrade of the railway connection Gent-Terneuzen includes the realisation of three infrastructure elements:

- Element A1: An additional northern connective section Zandeken (BE side of the border).
- Element A3: Zuid-oostboog/Sluiskilbrug (NL-side of the border);
- Element A4: An additional rail trajectory Axel-Zelzate along the east side of the Gent-Terneuzen canal (NL + BE).

The upgrade of the railway connection is planned to be realised by 2032.

#### Contact:

https://www.railghentterneuzen.eu/en @northseaport
**34** ATLANTE

D. 35

We are a company of NHOA Group, a global player in energy storage and electric mobility, and we develop technologies enabling the transition towards clean energy and sustainable mobility, shaping the future of a next-generation living in harmony with our planet. Operating since 2021, Atlante is developing the largest fast and ultra-fast charging network in Southern Europe, 100% enabled by renewables, energy storage and on-site photovoltaic. We aim to install in Italy, France, Spain and Portugal 5,000 fast and ultra-fast points of charge by 2025, and over 35,000 by 2030.

With the European Union support, Atlante is also committed to implementing a network of publicly accessible fastcharging stations for both light-duty and heavy-duty electric vehicles to allow electric charging along the TEN-T road networks in Italy, France, Spain and Portugal.

The objective will be achieved with the deployment of thousands of charging points across our four countries, ranging from a minimum power output of 150 kW, up to 350kW. All our charging stations will ensure full operational capability and 24/7 availability for consumers.



The project relies on 100% renewable energy, contributing to the objective of the green deal. Charging stations will be modular and designed with (or ready for) on-site battery storage to manage peak charging hours, along with on-site or off-site photovoltaic energy production. In select locations this configuration (battery storage and onsite electricity production) will be implemented to ensure a grid connection of 600kVA.

Atlante charging stations are managed as a network of micro-grids fully integrated with the main grid, featuring energy storage systems and other distributed energy resources to boost performances, and communicating with other Atlante EV stations through advanced digital tools. To this end, Atlante's proprietary Energy Management System platform, a cloud-based digital infrastructure that overlays the physical network, ensures smooth charging operations, efficient and profitable management of energy flows to and from battery storage or PV, and coordinated dispatch. This System will also allow to involve the infrastructure in the supply of balancing services to grid operators, wherever relevant.

Contact: https://atlante.energy/about/



# ACEM - MOTORCYCLE MANUFACTURERS



ACEM, the European Association of Motorcycle Manufacturers, represents approximately 40 million L-category vehicles (mopeds, motorcycles, tricycles and quadricycles) offering a popular and sustainable way of mobility both in urban, interurban and rural areas.

Contributing to the full transformation of the mobility sector especially in cities, our industry works hand in hand with public authorities and the European Union facing challenges such as road safety, climate change, local pollutants and noise.

ACEM's inputs are developed by the Vision 2030+ driving our strategic lines of action to improve daily life of citizens while promoting EU competitiveness:

- Safety & Good Health
- Jobs, Growth & Society
- Industry & Innovation
- Urban Living
- Circularity
- Climate

Related to electromobility, a main initiative from the motorcycle sector is the Swappable Batteries Motorcycle Consortium launched in 2021. The objective is to develop a common standard for battery specifications enabling an efficient charging infrastructure network in urban areas. Users will benefit from a standardized technology shortening charging time, reducing costs and promoting the circular economy approach.

# Contact:

https://acem.eu/ acem@acem.eu





The upgrade of key port infrastructure combining use of Renewable Energy Sources to cover port energy needs along with the availability of electric charging services to hybrid and fully electric vessels, are considered some of the most innovative and impactful characteristics of a modern resilient green port. The following actions are dedicated to the effective launch of energy upgrading in a number of Greek ports covering technical, financial, and environmental studies and infrastructure development ensuring a decarbonised operational framework in the next years:

# ALFION – INFRA (22-EL-TC-ALFION-INFRA)/ALFION (2019-EL-TM-0227-S):

The project addresses the studies and construction works for the deployment of shore-side electricity supply (SSES) for three positions serving freight and passenger vessels as well as studies and tender documentation for one additional SSE position for cruise vessels. The project will be implemented in the Core maritime port of Igoumenitsa, which is located in north-western Greece and is part of the Orient/East-Med Core Network Corridor.

## CENTAVROS (21-EL-TC-CENTAVROS)

The project aims to provide the necessary studies and final engineering designs for the port of Volos concerning (a) the development of the infrastructure and facilities that will enable shore-side electricity (SSE) for vessels berthed at the port, (b) the installation of a wave-energy generation system that will contribute to the increased power SSE needs and (c) the safety upgrade of the port's windward breakwater to safeguard vessels from extreme wave and wind conditions in the basin and facilitate access to the port.

## CIPORT (2020-EL-TM- 0062-S)

The Action addresses the Core maritime Port of Piraeus, located on the Orient East-Med Core Network Corridor. It is part of the Global project which aims to transform the Port of Piraeus into a Green Cruise Hub. The Action aims to provide the final studies and engineering designs for the development of on-shore power supply (OPS) technology for four cruise vessels positions at the Themistoklis coast in the core maritime Port of Piraeus.

### **Contact:**

Global Transport and Engineering Systems (GATES Ltd) https://www.gatesltd.gr/ email: info@gatesltd.gr Beneficiaries involved: Port Authority of Igoumenitsa S.A. - Port Authority of Volos S.A. Port Authority of Piraeus S.A. - PROTASIS S.A. HYDRUS S.A. - GATES Ltd - NTUA n **38** 

# **377** RENEW: Resilience-centric Smart, Green, Networked EU Inland Waterways

As climate change severely affects the performance of Inland Waterways Transport (IWT) operations, the priority is to create and test new solutions for climateneutral and climate-resilient IWT.

By capitalising on cooperation opportunities with ongoing projects and initiatives, the 3-year long EUfunded ReNEW project plays a key role in promoting economic growth and minimising the negative impact on the environment and degradation of ecosystems.

With 24 partners from 11 countries, ReNEW will deliver:

- An interdisciplinary IWT Resilience and Sustainability decision-support framework
- Targeted innovative infrastructure resilience and sustainability solutions
- A Green Resilient IWT Dataspace and generic Digital Twin
- Four real-life Living Labs, including Ghent and Douro waterways

**DEU RENEW** The four Living Labs (LLs) are focused on complementary aspects of Green Resilient IWT, ensuring the required intervation supervision

aspects of Green Resilient IWT, ensuring the required interrelations towards achieving innovation synergies and creating a comprehensive contextual approach towards a resilient and thriving IWT future.

#### **Contact:**

https://renew-waterways.eu/ https://www.linkedin.com/company/renew-inland-waterways https://twitter.com/ReNEW\_Waterways





ENVELOPE is a new Horizon Europe project that aims to advance and open up the reference 5G adv. architecture, and transform it into a vertical-oriented one. It builds on the success of previous Connected and Automation Mobility (CAM)-related and SNS projects and will deliver 3 large scale Beyond 5G (B5G) trial sites in Italy, Netherlands and Greece. ENVELOPE aims CAM vertical services and beyond, by supporting them with advanced exposure capabilities and functionalities tailored to the services' needs. The proposed ENVELOPE architecture will serve as an envelope that can cover, accommodate and support any type of vertical service.

EVENTS is an Horizon Europe project that brings together a complementary consortium of 12 partners within 6 EU Member States and UK, with the view to deal with complex situations where the normal operation of the Connected and Automated Vehicle (CAV) is close to be disrupted (e.g., due to dynamic traffic changes, harsh weather/light conditions, unstructured road, imperfect data, sensor/communication failures, etc.). These situations are called "events" and they are creating challenges for CAVs, that should be overcome in order to enable safe and reliable automated driving in such

cases. EVENTS project aims to create a robust and resilient perception and decision-making system, able to tackle the abovementioned challenges.

PoDIUM is an Horizon Europe project bringing together 24 partners from 8 European countries which aims to build trust and sustainability for connected, cooperative and automated mobility (CCAM) and accelerate the implementation of CCAM services. PoDIUM will identify and assess the connectivity and cooperation enablers to achieve higher levels of automation and advance important Physical and Digital Infrastructure (PDI) technologies. The project's outcome is a reference architecture, which is flexible and applicable in different road environments, offering greater resilience of transport systems towards the 'Vision Zero' target.



# **39** BILBOPS

The BilbOPS project, developed by the Port Authority of Bilbao, is a strategic investment that aims to electrify the docks of Containers, Cruise Ships and Ferries, deploying OPS (onshore power supply) technology, also known as cold ironing, with 11 connection points.

This technology allows ships that are prepared for it, and during their stay in port, to be connected to the electricity grid, turning off their engines their auxiliary diesel engines. This way, it is possible to avoid greenhouse gas emissions (CO2, nitrogen and sulphur dioxide), vibrations and noise, with the consequent benefit for the environment and public health.

Key Benefits:

D. 40

For the planet:

- Reduction of the Port's C02 emissions by 38.8%.
- Reduction of total CO2 emissions: 9,062 tonnes.
- For people:
- Reduction of emissions (nitrogen, sulphur dioxide), noise and vibrations.
- Direct improvement in the living conditions of 125,000 citizens (nearby municipalities: Getxo, Santurtzi and Zierbena), 116,000 passengers and 10,000 port workers.

Profit:

• OPS service to more than 900 annual calls at container docks, ferries and cruises



- Public-private investment:
  - More than €91 million (OPS and renewables)
  - More than  ${\in}188$  million (H2, LNG and OPS Alternative Fuels)

And sustainably generated electricity:

- Existing 12<sup>´</sup>MW wind farm since 2006 (Energías Renovables del Abra).
- Future photovoltaic plant in four counter-dikes with a total of 4 MW of power.

# BilbOPS drives innovation:

A tractor project like BilbOPS boosts our innovation ecosystem to provide new solutions and improve the delivery of the OPS service.

Development of applicable innovative technologies:

- Superconducting power cables.
- Wave energy technology.
- Second-life batteries.

Creation of a Living-lab developed by Bilbo Portlab that will link about 20 start-ups in 4 years to this project. Collaboration with other innovative ecosystems:

### Contact:

https://bilbops.bilbaoport.eus/bilbops-ingles/ https://twitter.com/bilbaoport

# Exhibition Guide



The investment undertaken through CEF seeks to provide onshore power supply along specific quays within the TEN-T CORE Port of the Grand Harbour that accommodate cruise liner vessels. The later require substantial energy while berthed and then to use their auxiliary engines which in turn burn marine gas oil with 0.1% sulphur in order to meet their energy requirements. In doing so, the vessels generate harmful emissions such as CO2, NO2, SO2 and particulates, into the air as well as noise emissions.

The use of OPS will result in significant reduction in air pollutions and GHG emissions. The importance of the reduction of GHG emissions is accentuated by the fact that the Grand Harbour is located within close proximity to highly-densely populated residential and business areas. The investment seeks to contribute towards EU and national climate change objectives in line with obligations to reduce the carbon footprint of land-based port activities and the decarbonisation of shipping activities.

The project has invested in the provision of high voltage



shore connection mainly for the cruise liners. The works included the electrical works required for the provision of the necessary system and the onshore power supply equipment along quays on the outer region of the Grand Harbour, namely the quays at Pinto Wharf, Deep Water Quay and Boiler Wharf.

A total of 17 connection points have been installed along the above mentioned quays and cruise liners which are OPS enabled can now hook up to the land side electrical system for the provision of its energy supply requirements whilst berthed in the port.



Contact: https://www.infrastructuremalta.com/ https://twitter.com/InfraMalta

# Energiehaven IJmond

The project Energiehaven IJmond consists of a basic port infrastructure for the offshore wind industry on the TEN-T comprehensive port area of IJmuiden, the Netherlands. IJmuiden is located at the entrance of the North Sea Canal that provides access to the TEN-T network in Amsterdam and is the main entrance point for the North Sea – Baltic, North Sea Mediterranean and Rhine-Alpine network corridors.

The Project contributes to modernising the TEN-T network and considers the European Union long-term decarbonisation targets. Additionally, it supports the transformation towards a more sustainable transport system, which is necessary to meet EU climate neutrality by 2050. Specifically, the Project supports the CEF-call: "basic port infrastructure with priority on development of ports' capacities and facilities in relation with offshore wind farms". Strengthening European port infrastructure is essential for offshore wind development. Ports are important to support the rollout of offshore wind farms. From 25 GW today to more than 450 GW by 2050 (of which 70 GW in the Netherlands). The activities in this project will eventually (after the completion of Works) support the implementation of

# **Cont of Amsterdam**

offshore wind at sea. In this way, the project facilitates and accelerates the rollout offshore wind energy farms in Europe.

The proposed project is part of a larger Global Project 'Global PoA Infrastructure fit for the future project', which aims to realise various public, non-discriminatory future-proof basic and zero-emission port infrastructure facilities. The proposed Project concerns one of the steps of this Global project, which will contribute to modernising and upgrading the involved core TEN-T network corridor. It provides a transhipment facility in relation with offshore wind farms which will facilitate the required transition and further investments in suitable port infrastructure along the TEN-T network.





D. 43



The Fehmarnbelt tunnel - the fixed link between Denmark and Germany

### Four projects – a common purpose

The 18-kilometre Fehmarnbelt tunnel is under construction between Denmark and Germany across the Fehmarnbelt. When completed in 2029 the Fehmarnbelt tunnel will be the world's longest immersed tunnel for cars and trains. It will take 7 minutes by train and 10 minutes by car to travel through the tunnel.

Running on 100 percent sustainable energy and using energy-efficient technology, the fixed link will operate on a CO2-neutral basis and will offer a more direct and sustainable route to the rest of Europe from Scandinavia.

The Fehmarnbelt project removes bottlenecks in the Scandinavian-Mediterranean Core Network Corridor and this will improve the free movement of goods and services within the EU.

As a part of the Fehmarnbelt project, the existing Danish railway line is being upgraded between Ringsted and Holeby, Lolland. The railway project includes electrification, improving the infra-structure to increase speed limits to 200 km/h and building double tracks.

Traffic is expected to increase significantly between Denmark and Sweden across Øresund. Therefore, Copenhagen Airport Station on the Øresund line to Sweden is expanded to accom-modate more passenger and freight trains. The project is known as New Kastrup Airport station and is expected to come into service in 2026.

To ensure the handling of the increased number of freight trains with the opening of the Feh-marnbelt tunnel, passing tracks will be built at Kalvebod in Copenhagen expanding the capacity. The project is expected to be finished in 2027.

Once completed, the combined four projects will boost passenger and freight traffic running be-tween Copenhagen and Fehmarn estimated at 3.8 million vehicles and 30,000 trains a year.

Contact: www.femern.com



The Bothnian Corridor collaboration is dedicated to strengthening transport infrastructure and improve the connections between Sweden and the rest of Europe. The corridor is an extension of the EU's core network corridors Scandinavia-Mediterranean and North Sea-Baltic northwards and links together Norway, Sweden, and Finland, along with the connecting routes. Our primary focus lies in the railway corridors, complemented by important connections to other modes of transportation.

Our overarching objective is to ensure the completion of the core network corridor Scandinavia-Mediterranean by 2030 and the comprehensive network by 2050.

Key to our success are three pivotal projects: the North Bothnian Line, the New East Coast Line, and the Freight Line through Bergslagen. Each project plays a crucial role in advancing our shared vision for an efficient and well-connected transport network across the Bothnian Corridor regions.



The Bothnian Corridor collaboration engages the collective efforts of Region Dalarna, Region Gävleborg, Region Jämtland Härjedalen, Region Norrbotten, Region Västerbotten, Region Västernorrland, and Region Örebro County.





GGB Godsstråket genom Bergslagen

**Contact:** 

https://bothniancorridor.com/en/aboutus/ @BC\_Swe



 $\operatorname{ESPO}$  is all set for the Connecting Europe Days exhibition.

We are excited to share the findings of the ESPO Port Investments Study, a comprehensive analysis outlining the investment needs and financial challenges faced by European ports over the next decade.

As an initiator and co-organiser of the CEF Coalition, which gathers representatives from Europe's transport sector, ESPO will be co-launching the joint campaign centred around one crucial message: "Europe needs more EU budget for transport."

Last but not least, the upcoming exhibition serves as a platform for ESPO to represent and showcase the various projects unfolding in different ports in Europe. It provides an opportunity to highlight the initiatives and advancements undertaken in and by European ports.

Make sure not to miss it, join us at our stand!



Contact: https://www.espo.be/ @ESPOSecretariat



## **Île-de-France deals with Green Buses (BUS2025)**

Through the Bus2025 programme, Île-de-France Mobilités and RATP have committed to a major technological and ecological development: to convert the vast majority of the RATP-operated bus fleet to electricity and biomethane by 2025.

The Bus2025 project is a program led by the Régie Autonome des Transports Parisiens (RATP) and the public transport authority in the Île-de-France region, "Île-de-France Mobilités", which aims to replace buses running on diesel in the Paris region network with buses half of which run on electricity and the other half on Bio-CNG (Compressed Natural Gas), obtained from the methanisation of various and sometimes combined organic waste (technology benefiting from a CNG traceability certificate obtained using this production method).

In practice, this involves the renewal of the entire RATP bus fleet (i.e. 4,800 buses) and the conversion of all the infrastructures of the 25 Paris bus depots to electricity (13 bus depots) or BioCNG (12 bus depots).



RATP is thus committed to reducing its energy consumption by 20% and cutting its greenhouse gas emissions by 50% by 2025 (on the basis of 2015) More precisely, the Bus2025 project will lead to a 75% reduction in greenhouse gas (GHG) emissions from buses, which represent 72% of RATP's total GHG emissions.

The European Commission supports the Bus2025 programme, which demonstrates the commitment that Île-de-France Mobilités and RATP have made to their energy transition. Since 2020, the Commission has awarded three successive grants, thanks to the CEF Transport, totalling close to €55 million for the energy conversion of some bus depots and the purchase of electric buses. These European subsidies are supplemented with a loan from the Caisse des Dépôts et Consignation for the same amount.

#### **Contact:**

A more environmentally friendly bus fleet thanks to the Bus2025 plan | RATP Group @RATPgroup



The initiative DocksTheFuture Network of Excellence (NOE) was born as outcome of the H2020 project Docks the Future and is still running as voluntary cooperative network that gathers the most innovative EU ports willing to team up to support the maritime community in achieving the UN 2030 SDGs.

The Network of Excellence aims at supporting ports to develop innovative projects to achieve their sustainable targets towards digital and green transition, exploring the opportunities deriving from funding programmes such as the ones promoted by the Green Deal.







LIFE GREEN VULCAN - High performance devulcanized masterbatches for End-of-Life Tyre reuse in high-volume technical compounding applications

Vulcanized rubber is very difficult to recycle, which is why End-of-Life Tyres (ELT) are used at very low concentrations in tyre manufacturing (below 3%), and rubber waste reuse rate is still very low.

Rubber devulcanization is a powerful method of recycling that has an enormous potential for the development of quality raw materials from ELTs. The resulting material can be transformed into useful products which could serve as a substitute for virgin rubber.

LIFE GREEN VULCAN has successfully demonstrated that tyre and automotive components can be manufactured with high ELT recycled content. Thanks to the development of an innovative mix of Natural Rubber/ Styrene-Butadiene Rubber (NR/SBR) devulcanized masterbatch, a new sustainable spring pads for the Alfa Romeo Tonale has been designed and manufactured with 20% weight concentration of recycled ELT, as well as a PCR tyre tread with 10% weight concentration of recycled ELT.



Not only these compounds enable significant raw material savings, but they also bring about significant CO2 emissions reductions, with a cumulative long-term potential reduction estimated in the range of 500.000 to 1 million ton of equivalent CO2.

The technology developed by RUBBER CONVERSION, within the project LIFE GREEN VULCAN, significantly contributes to establishing a scalable supply of quality ELT derived sustainable materials for the European tyre and automotive industry, enabling them to achieve their decarbonization targets.

The technology is also being successfully tested for the manufacturing of other automotive components and rubber-based products like gaskets and shoe soles, extending the market application and the overall potential positive impact on decarbonization.

Contact: https://www.lifegreenvulcan.eu/



D. 49

AWARD - All Weather Autonomous Real logistics operations and Demonstrations

Connected and automated vehicles have a significant impact on the logistics industry. However, autonomous heavy-duty vehicles still face challenges when it comes to operating safely and functionally around the clock.

These challenges hinder their development. The EUfunded AWARD project will develop and deploy a safe autonomous transportation system applicable to a wide range of real-life occurrences and scenarios.

Specifically, the project will provide an autonomous driving system capable of confronting adverse environmental conditions such as fog, heavy snow and rain. The solution will rely on multiple sensor modalities offering 24/7 availability and a new fleet management system for optimised logistics.



# Our key results





Zero-Emission Driverless HDVs certified for extended ODDs



Demonstrations of

24/7 real logistics

operations



Policy recommendations regarding the regulatory framework

innovation programme under grant agreement No 101006817.

## Contact:

system that optimizes

logistics

Správa železnic, státní organizace (SZCZ) https://www.spravazeleznic.cz/vrt



As part of the Marine Institute the Irish Maritime Development Office (IMDO) is Ireland's national dedicated development, promotional and marketing office for the shipping and shipping services sector.

The IMDO is the Irish government office which provides support to national and international maritime businesses in Ireland. It is the aim of the IMDO to be the focal point for maritime business in Ireland. The IMDO provides government and industry with a range of information and reporting across the sector and works with international businesses to help them set-up or expand in Ireland. The IMDO is also Ireland's designated Shortsea Shipping Agency and provides independent advice and guidance on EU funding initiatives.





#### **Contact:**

www.imdo.ie @IMDOIreland



Seine-Scheldt is a modern 1,100 km network of navigable waterways addressing Europe's economic and sustainable development challenges. By connecting Paris and Le Havre to the main North Sea ports in Ghent, Antwerp, Zeebrugge and Rotterdam, it will provide a major link between the main industrial, logistics and commercial centres of Northern Europe, thanks to the regeneration and the modernisation of existing waterways and the construction of the Canal Seine-Nord Europe, a 107 km section of wide gauge waterway. Crossing the Hauts-de-France Region and linking the Seine Basin to the Benelux and Northern Europe, this canal will represent an essential component of the development of the network.

The EEIG team will be happy to inform the public of the current developments of this network, displaying all necessary information, in particular the operations progress map of the Seine-Scheldt network.

Seine-Scheldt is also the 1st European priority project, developed in partnership between France, Flanders and Wallonia. This Franco-Belgian cooperation is developing the network by constructing a new and modern



infrastructure (upgraded waterways with new locks, renovates dams, bridges..). This development of the network will enable increased and more fluid traffic on the waterways by 2030. It will also stimulate the sustainable implementation of an effective modal shift from the road to the water, while developing multimodality with other modes of transport, especially rail.

By thus repositioning French and Belgian waterway transport at a European scale, Seine-Scheldt can already be considered as a flagship and priority network at the heart of the European crossroads of multimodal corridors. Its achievement will contribute significantly to the objectives of the European Union's Green Deal in terms of carbon neutrality and to preventing the risks associated with climate change, and the water resources in particular.



# **52 51 EFTI4EU**

Electronic Freight Transport Information for Europe (eFTI4EU)

eFTI4EU is a cooperation of a pan-European consortium of 23 partners, including 9 Member States (plus 4 Observers), united in their vision to pave the way for the implementation for Electronic Freight Transport Information (eFTI) architecture.

The aim of the project is to create a unified approach to the operation of eFTI Gates, and to implement a reference architecture for exchanging logistics and transport data, which will be piloted through a series of use cases (both at national and cross-border level) in all the 9 Member States directly involved.

eFTI4EU is the first project making the EU Regulation 2020/1056 (eFTI) real, and it is financed under the Connecting Europe Facility (CEF) program of the European Commission.

In total 23 partners participate in the work between 2023-2026

Partner Member States: Estonia, Austria, Belgium, Finland, France, Germany, Italy, Lithuania, Portugal



Contact: https://efti4eu.eu/ p. **53** 

# LOGISTICS OVERIJSSEL

Logistics Overijssel



Logistics Overijssel is a networking organization in the northeastern Netherlands that offers free and confidential services, such as:

- introductions to networks, business partners, governments and knowledge institutions;
- support in finding suitable partners for cooper ation or innovation;
- knowledge and expertise on the regional busi ness climate;
- organizing of international trade missions;
- support in establishment and expansion;
- finding a suitable location or property;
- `tailor-made' fact-finding trips

Overijssel consists of three regions, Port of Deventer, Port of Twente and Port of Zwolle.

Our knowledge, innovation and infrastructure provide:

- a solution for every type of cargo;
- fast and efficient handling of your goods;
- reliable and safe deliveries to your customers and markets;
- reduction of time losses and unnecessary costs in your supply chain;

• opportunities to achieve your sustainable goals.

Smart and sustainable logistics hotspot

- strategical location between world ports and north eastern Europe;
- attractive workforce;
- complementary ports;
- shared innovation agenda;
- ports of the future;
- unique regional cooperation;
- high quality of life.
- major logistics hub between Amsterdam, Rotterdam, Antwerp and northeastern Europe;
- part of the booming European North Sea-Baltic Ten-T corridor;
- state-of-the-art infrastructure international connections.

## Contact:

www.logisticsoverijssel.nl https://www.linkedin.com/company/logistics-overijssel/



The Scandria®Alliance is an arena for cities and regions to collaborate on climate-smart multimodal transport connectivity at the interface to sustainable regional development between Scandinavia and the Adriatic Sea.

Our common vision is to connect regions, communities and economies through clean and smart transportation.

The members of the Scandia®Alliance engage in crossborder and transnational cooperation by:

- sharing their knowledge and experiences both internally and with relevant stakeholders from the Scandria Corridor and wider Europe,
- developing joint positions towards relevant policy developments at European, macroregional and national levels,
- bringing together stakeholders from all levels to discuss common positions and convey them to relevant decision makers,
- developing common project approaches in transnational and other relevant European programmes.



### Contact:

Web: https://scandria-alliance.eu/ LinkedIn: @Scandria-Alliance Twitter: @ScandriaAll



Automated combined transport terminal in Calais enabling the modal shift of all types of semi-trailers from road to rail

The CargoBeamer-Terminal in Calais opened in 2021 and is one of the most advanced transshipment terminals for shifting road semi-trailers to rail.

Constructed and operated by the CargoBeamer Group, an intermodal operator specialized in transporting non-craneable semi-trailers on rail, it allows to load and unload a train to be loaded and unloaded automatically with all units shifted on/off the train in parallel.

The unique horizontal transshipment technology of CargoBeamer allows for non-craneable units to easily be transported by rail, resulting in a significant reduction of CO2 emissions and other external costs.

The site in Calais is the first proprietary terminal containing the CargoBeamer technology, and the company will be realizing several new terminals across Europe soon.

# CargoBeamer





From Dresden to Prague in one hour: We are building a new train line.

With speeds of up to 320 km/h, travel time from Dresden to Prague will be reduced from 2.5 hours to 1 hour, from Berlin to Vienna to 4 hours.

We will build Germany's longest railway tunnel to bring the people of both countries closer together. The route on the German side is already fixed. We were able to decide on a preferred variant that is also widely accepted by the regions.

Get the chance to talk to the German planning team and stakeholder management about our project.

The railway project is part of the Orient/East Med Corridor. The European Union is supporting the planning of the cross-border section.



Contact: www.dresden-praha.eu/de







EUROPEAN CYCLISTS' FEDERATION

Integrating cycling and EuroVelo in the Trans-European Transport Network

EuroVelo is the European cycle route network - 17 long-distance cycle routes that cross and connect the continent.

It is the largest cycle route network in the world, spanning over 90,000 km when completed.

The development of EuroVelo leads to safe and continuous cycle routes, serving as the backbone for national and regional cycle networks. It can be used by long-distance cycle tourists, as well as by local people making daily journeys.

EuroVelo is developed and coordinated on the transnational level by the European Cyclists' Federation (ECF) in cooperation with a network of National EuroVelo Coordination Centres (NECCs). It is an initiative that fosters sustainable transport and tourism policies.

A reference to EuroVelo, the European cycle route network, was included in the TEN-T quidelines for the first time in 2013, enabling cycling infrastructure to be a part of TEN-T projects and synergies to be considered in TEN-T projects.

There are nearly 8000 locations across Europe where roads, railways or inland waterways constituting the Trans-European Transport Network run along or across EuroVelo routes.

The total length of sections where a TEN-T route overlaps with a EuroVelo route adds up to 10,000 km, showing the enormous potential for synergies between the networks. This includes bridges and sections of the roads leading to them, roads and railways in narrow mountain valleys or along the coastlines, as well as roads leading up to border crossings.

Several EuroVelo routes follow major navigable canals and rivers such as Rhine or Danube, that are also a part of the TEN-T inland waterway network.



www.estaciondecanfranc.es



FEHRL, the Forum of European National Highway Research Laboratories, among others, is engaged in boosting research, development and implementation in transport infrastructure in Europe. To do this, FEHRL is involved in several research projects in automation and CAVs, circularity, robotisation etc. a description of some of these projects is presented below:

AUGMENTED CCAM aims to understand, harmonise and evaluate in an augmented manner adapted and novel support solutions of Physical, Digital and Communication (PDI) infrastructure, to advance its readiness for large scale deployment of CCAM solutions for all.

InfraROB promotes significant advances in automating, robotising and modularizing the construction, upgrade and maintenance of the road infrastructure.

The main objective of the BISON project was to identify future research and innovation needs for a better integration of biodiversity with infrastructure planning, construction, operation and decommissioning. The project developed a Strategic Research and Deployment Agenda (SRDA).

The overall objective of CIRCUIT is to develop a holistic approach supported by digital solutions and guidelines to foster the introduction of innovative engineering practices in the whole construction supply/value chain



enabling circular, sustainable resilient and smart transport infrastructure and a wider deployment of Green Public and Innovation Procurement.

ALARTE is an automatic inclinometer probe that can transmit data in real time; a game-changing technology that will disrupt the market of geotechnical monitoring by closing the gap between manual and automatic monitoring options.

TRA, the Transport Research Arena, Transport Research Arena (TRA) is the foremost European transport event that covers all transport modes and all aspects of mobility. Transport Research Arena (TRA) offers a great venue for researchers, policy makers and industry representatives to get together and contribute to the discussion on how research and innovation can reshape the transport and mobility system. The conference will take place in Dublin, Ireland from Monday 15 to Thursday 18 of April 2024.

### **Contact:**

https://augmentedccam.com/; https://twitter.com/AugmentedCCAM https://infrarobproject.com/; https://twitter.com/infra\_rob https://bison-transport.eu/;

https://www.circuitproject.eu/; https://twitter.com/ProjectCircuit https://alarte-project.eu/

https://traconference.eu/ ; https://twitter.com/TRA\_Conference



The global project "Strengthening the seamless and intermodal feeder functions to the two TEN-T core network corridors Rhine-Danube and Rhine-Alpine" and the Frankfurt urban node is a project to establish a direct connection between the districts and municipalities located northwest of Frankfurt and the airport.

The Action "Final planning of the Regionaltangente West (RTW) in Frankfurt am Main" is a central component of success for the global project.

The Regionaltangente West (RTW) is a new tangential rail connection to the west of Frankfurt to improve local public transport.

The RTW complements the historically grown connection via the "Frankfurt Hauptbahnhof" main train station, which indirectly relieves the strain on the main train station and thus the S-Bahn tunnel.



# Exhibition Guide



The Brenner Corridor Munich-Verona: The Brenner Base Tunnel and its northern and southern access routes We are a cluster of three project stretches along the Corridor Munich-Verona:

- The Brenner Base Tunnel: Planning and project realization by BBT SE
- The Northern Access Route: Planning and project realisation by DB InfraGO AG and ÖBB-Infrastruktur AG
- Southern Access Route: Planning and project realization by RFI

Within the Alpine region, the Scandinavian-Mediterranean Corridor crosses the southern part of Germany, the western part of Austria and northern Italy. The transalpine stretch is bounded by the metropolitan areas of Munich and Verona. With its height of 1.378 m above sea level, the Brenner Pass is the lowest Alpine Pass between Germany and Italy.

The Brenner Base Tunnel (BBT), an almost flat railway tunnel, is the centrepiece of the Brenner axis between Munich and Verona and it runs for 55 km between Innsbruck (in Austria) and Fortezza (in Italy).

The whole part of the German part 4-track expansion



of the northern access routes to the BBT is defined and the planning activities for the new, cross-border railway line between Grafing (Germany) and Schaftenau (Austria) are underway. The Austrian stretch Radfeld-Baumkirchen is operational since 2012. The building permit for the agjacent section Schaftenau-Radfeld is currently processed.

The southern access route between Fortezza and Verona also foresees the 4-track expansion and includes four priority construction lots. The excavation work for construction lot 1 has recently started.

The new high-capacity lines between Munich and Verona will provide a number of substantial advantages as regards the reduction of the route length and the travel time, allowing for notably longer trains with higher loads.

The full 4-track extension in the entire Corridor Munich -Verona will be a reality by the time horizon 2040.

**Contact:** 

https://bcplatform.eu/corridorstudies; https://www.bbt-se.com



Cross border sections of the TEN-T-network lines require a very close and partnership cooperation between the neighbour states. In case of a long cross-border tunnel, even more. A lot of legal and technical regulations as well as the organization and work practice are to discuss, leading to solutions, which meet the requirements of both sides.

EGTC contributes to the project by political activities, technical support, in coordination of authorities and municipalities and by supporting the public work.

The goal is acceleration of the planning and approval process, to start the building activities as early as possible.



Contact: www.nbs.sachsen.de



Final planning of the new urban railway line S4 Acronym: S4 Hamburg

Hamburg is an urban node located on three Core Network Corridors and is planning a new railway line S4. This aims to solve an existing bottleneck, which is due to the high number of trains using the line every day as well as the congested Hamburg central station.

The construction of the S4 line will relieve traffic on the Hamburg – Lübeck main line, replacing regional trains with S-Bahn services and allowing for increases in efficiency and frequency for freight and long-distance passenger traffic on the Scandinavian – Mediterranean Corridor in direction to the fixed Fehmarn Belt crossing (cross border section Denmark/Germany).

The project S4 (East) Hamburg to Bad Oldesloe is scheduled for completion in 2028.



With the realisation of the S4 line, the passenger flows will be separated from the freight flows instead of increasing the capacity. "Unbundling" on the Scan-Med-Corridor: S4 will use dedicated tracks resulting in 100 regional trains per day less on the long-distance tracks.

The S4 will release capacity within the Hamburg central station (15,000 passengers per day). S4 is tackling the increasing regional traffic with higher capacity (shorter intervals and more seats), better quality (larger coverage/ more stations and higher reliability/less conflicts), thus making use of rail infrastructure more efficient.

Contact: https://www.s-bahn-4.de/

# 62 ECHOES

"ECHOES will demonstrate the benefits of introducing direct controller pilot communication (DCPC) in oceanic airspace via VHF voice and via VHF VDL-2 data (with the VHF ground stations being substituted by LEO satellites, but no change to the aircraft avionics), in combination with satellite-based ADS".

Contact: www.startical.com

p. **63** 



D. 64

## **UNIFE – The European Rail Industry**

ETCS-emulator/simulator: Test system for complete on board and trackside application with driver desk emulation

## **Trainguard ETCS Live**

Training and test facilities are more and more frequently required for the continuously increasing use of ETCS systems worldwide. Such facilities allow operational situations and functions/data to be tested under conditions which are as close as possible to real-life conditions.

In such tests, train runs with real system data are used to simulate a wide range of different operational situations. For this purpose, the ETCS system has to be embedded in the system environment (system levels) just like in the real-life system. Within and between these system levels, the functions which are required for complete operational sequences are performed. All in all, the training and test system is based on the system levels' existing product systems and enables real scenarios to be run in real time by means of 3D visualization with a driver's console.

At the same time, the original DMI provides the same information as on an ETCS-controlled vehicle.





# Contact:

www.unife.org www.ertms.net @unife @ertms



Rail Baltica is one of Europe's largest high-speed infrastructure projects, with the aim of delivering seamless mobility for people, goods, and services to accelerate social and economic development in the Baltics and beyond. It is a missing rail link that connects the Baltic States, Poland, and Finland indirectly with the European rail network, and is a part of the North Sea-Baltic trans-European (TEN-T) transport corridor and Baltic Sea – Black Sea – Aegean Sea TEN-T corridor.

Rail Baltica will be a fully electrified, double-track railway with a standard European gauge of 1435 mm, equipped with the European Rail Traffic Management System. With a design speed of 249 km/h, Rail Baltica is set to significantly reduce travel times and offer different new train services, such as international, cross-border regional, and night trains.



This greenfield project will serve as modern infrastructure for passenger, freight, and military mobility, promoting accessibility and facilitating business, tourism, and cultural exchange. Additionally, it aims to enhance the Baltic region's position as a vital transit hub, fostering stronger trade connections and promoting regional cooperation.

The project also plays a crucial role in supporting military mobility, ensuring efficient and strategic transportation capabilities in the region.

#### **Contact:**

www.railbaltica.org https://twitter.com/RailBaltica

# p. 66 **65 TWIN PORT V**

The Port of Helsinki and Port of Tallinn have successfully collaborated already on five TWIN-PORT projects, with TWIN-PORT VI in the planning phase.

The Twin Port V Action is part of global project aiming at the development and upgrade of the existing Motorways of the Sea link between the core network ports of Helsinki and Tallinn on Helsinki-Tallinn and Vuosaari-Muuga routes. These ports play a key role in the European transport network and connect the North Sea-Baltic Corridor to the Scandinavian-Mediterranean core network corridor.

The activities of TWIN-PORT projects foster eco-friendly and sustainable port infrastructure and enhance overall port performance, accessibility, and traffic connectivity. The ports have among others already implemented automated gate and traffic management systems, installed onshore power supply systems, automated mooring equipment, improved last-mile connections, and constructed double ramps for ferry loading and unloading. The common endeavors have significantly contributed to both ports' efforts in advancing climate action goals and the current Green Corridor initiative. With the new TWIN-PORT VI initiative underway, the collaboration between these two Finnish and Estonian ports continues to flourish.



PORT OF 🚯 TALLINN The Port of Good News

# || PORT OF || || HELSINKI ||

#### **Contact:**

https://www.portofhelsinki.fi/en/making-new/the-eu-supported-projects/twin-port/ https://www.ts.ee/en/ongoing-eu-projects/ @portofhelsinki @portoftallinn

# **66** ESPORG

n **67** 

# **ESPORG - Safe and Secure Truck Parking**

The European Secure Parking Organisation (ESPORG) is dedicated to improving safety, security, and services in the logistics industry. ESPORG represents and supports the parking area operators that strive to support logistics and mobility operations in delivering a secure end-to-end quality transport with proper social conditions for drivers.

The organisation advocates that existing EU legislation calls for secure truck parking areas to be established every 150 kilometres on the TEN-T core network and for full ITS connectivity of truck parking areas.

ESPORG is a leading partner of all projects related to establishing security and service levels at parking areas and an active member of the European Commission expert group on secure truck parking.

We are the European parking organization driving the official EU-Parking Standard.



Contact: www.esporg.eu @ESPORG



### **RFC Network & RailNetEurope**

RailNetEurope (RNE) was set up in 2004 to help meet the challenges faced by the international rail sector. This entails developing harmonised international business processes, templates, handbooks, and guidelines. In short, 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. More information can be found on www.rne.eu.

The Regulation (EU) No. 913/2010 concerning a European rail network for competitive freight became effective on 9 November 2010. This Regulation required Member States to establish international market-oriented RFCs to meet three main challenges:



1. strengthening co-operation between IMs on key aspects such as the allocation of paths, deployment of interoperable systems and infrastructure development 2. finding the right balance between freight and passenger traffic along the RFCs, giving adequate capacity for freight in line with market needs and ensuring that common punctuality targets for freight trains are met 3. promoting intermodality between rail and other transport modes by integrating terminals into the corridor management process

Since traffic does not usually start and end on an RFC exclusively, efficient and harmonised interfaces to the existing processes and tools of individual IMs and ABs participating in RFCs are needed. To achieve stronger harmonisation between the RFCs' various implementation approaches, RNE provides a coordination platform for RFC organisations to jointly develop harmonised processes and tools.

Contact:

www.rne.eu/corridor-management/rfc-network/





Liège plays important roles of Hub and Gateway on the core network of the TEN-T as well as a core Inland Port as a core Airport. The multimodal platforms within the Port of Liege, the 1st Belgian Inland Port and the 3rd Inland Port in the EU, has known an increase in transport demand over the last decades and years at several levels.

The Inland waterways connects Liège with the highest gabarit VI to the ports of Antwerp and Rotterdam. All multimodal platforms located in Liège are connected to the Rhine Alpine, North Sea Mediterranean and North Sea Baltic Railfreight corridors. The intermodal terminals of Liège accommodate daily services to European and Global destinations.

The project Tercofin-Seafar enhance the capacity of the existing intermodal infrastructures in the Port of Liège and improve drastically their connections to the ports of the north range, alongside the inlandwaterway network in Wallonia, cross-border with Germany, Europe and the global markets (China), promoting the environmentally friendly modes of transport. Consequently, the projects aims at the improvement of the performances of the inland waterway services alongside the river Maas and the Canal Albert in Belgium and cross-border with the Netherlands and Germany by supporting the deployment of new technology standards in Europe.

These new technology standards aim at improving the performances of infrastructures located on different sites in the port area and support the reduction of local road traffic.

Remote ship management has the aim to improve the competitiveness of inland waterways services by reducing operational bottlenecks and therefore open the access to new remote markets alongside the river Maas in the Walloon Region of Belgium.

The level of ambitions is calibrated on the high environmental objectives set by the European Green Deal, Belgium and Belgian Regional Governments' strategies. The global project is supported by the Walloon and Belgian governments through the RRP.

Contact: www.novandi.be

# p. 70 659 CZECH HIGH-SPEED LINE PROJECT



Czech High-speed Line Project (represented by section Brno - Přerov, INEA/CEF/TRAN/ M2015/1138800)

If the Central European region wants to remain an integral part of an interconnected Europe, we need to keep pace with the constantly evolving trends. Správa železnic is a modern organisation and responsible infrastructure manager with a high level of expertise and experience and makes every effort to meet this objective.

Czech HSLs system will significantly improve the regions' otherwise unattainable interconnectivity, it will provide more attractive cross-border journey times between the main international hubs in Czechia, Germany, Austria, Poland and Slovakia, and, through segregation of long-distance passenger transport, it will help to reduce short distance flights, relieve the conventional network bottlenecks and free up their capacity for international freight transport.

From the strategic point of view, the overall concept follows the objectives of the TEN-T policy and the EU

White Paper, where in particular the Berlin – Praha – Wien/Bratislava (target travel time 4 hours) and Bratislava/ Wien – Ostrava – Katowice/Warszawa (target travel time 5 hours) routes play a key part in the entire HSR system of the Central European region.

Over the last two years, thanks to cooperation with SNCF and political support from the EU and neighbouring countries, Správa železnic has made significant progress in the HSR design preparation. In order to maintain the momentum, and since the current Connecting Europe Facility (CEF) programme concentrates exclusively on co-financing of TEN-T Core Network projects, it is crucial that all proposed HSR connections in Czechia are included in the TEN-T Core Network.




# Electronic freight transport information (eFTI) – a view into the future of logistics

Most cargo movements today are still accompanied by paper-only documents. But things are about to change. In less than 3 years from now, authorities in all EU Member States will be obliged to accept freight information provided via dedicated electronic freight transport information (eFTI) platforms.

Thanks to the eFTI Regulation, sharing cargo transport information with the authorities will be standardised across the EU and across transport modes. This will also facilitate standardisation of business-to-business information exchanges, such as for requesting or booking freight transport services.

At our stand you can get answers to your questions on the eFTI Regulation and its implementation. You will also get demonstrations on how the eFTI exchange environment could benefit business practices in logistics and supply chain more generally, developed in EU and nationally funded pilot projects.

#### Contact:

https://transport.ec.europa.eu/transport-themes/digital-transport-and-logistics-forum-dtlf\_en#efti--electronic-freight-transport-information-regulation



#### **The Multimodal Traffic Management Cluster**

This cluster includes seven Horizon 2020 and Horizon Europe projects enabling the Network and Traffic Management of the future. The projects involved are TANGENT, FRONTIER, ORCHESTRA, DIT4TRAM, SYNCHROMODE, ACUMEN and DELPHI.

Our goals are to create multimodal and policyresponsive traffic management systems to move towards sustainable, safe and accessible urban mobility. These projects are:

- developing tools for dynamic transport demand management and supply optimisation
- creating innovative architecture and concepts of operations for an efficient, resilient and adaptable multi-modal network and traffic management systems
- using innovative data collection and fusion techniques, leveraging existing standards and methods for data exchange
- developing multi-actor organisational and business models with shared responsibilities between

different traffic management stakeholders

- assessing the impact of new technologies, including smart infrastructure and connected and automated vehicles
- designing and calibrating arbitration models for complex network and traffic management scenarios and multi-actor settings, including disaster management

# TANGENT

#### **Contact:**

DIT4TraM: https://dit4tram.eu/ TANGENT: https://tangent-h2020.eu/ FRONTIER: https://www.frontier-project.eu/ ORCHESTRA : https://orchestra2020.eu/ ACUMEN: https://acumen-project.eu/ SYNCHROMODE: https://www.synchromode.eu/ DELPHI: https://delphi-project.eu/

# 72 Infrabel

n **73** 

Infrabel is the infrastructure manager for the entire Belgian railway network, providing railway capacity at the service of society and the economy. Infrabel subscribes to the European and national objectives to make the transport and logistics chain more sustainable by maximising the modal shift to more sustainable transport modes. This sustainable modal shift will improve the value chain for companies and thus foster economic development throughout the European Union.

Infrabel, together with the Belgian government, also extends this in its investment policy. Investment funds are deployed where their impact is most significant. European co-financing is an important contribution in the timely realisation of investment projects.

During the Connecting Europe Days, several investment projects along European Transport Corridors will be presented that will make rail transport in Belgium a more attractive alternative, both for passenger and freight transport.

# **INFR/ABEL**

#### Contact: https://infrabel.be/en/railwayundertakings

# **P. 74 TS EUROPEAN ALTERNATIVE FUELS OBSERVATORY (EAFO)**

#### **European Alternative Fuels Observatory (EAFO)**

The European Alternative Fuels Observatory (EAFO) is the European Commission's knowledge centre, contain a wealth of data on alternative fuels in Europe.

It gathers information on infrastructure roll-out for alternative fuels, the uptake of alternative fuels, and support measures in Member States and other European countries within EAFO's scope. The data gathered by EAFO is essential for the European Commission to monitor the implementation of the Alternative Fuels Infrastructure Directive (2019/94/EU), the proposed regulation on alternative fuels infrastructure, as well as the Clean Vehicles Directive.

These pieces of legislation are central to the Commission's efforts to decarbonise transport, as acknowledged in the European Green Deal and the Smart and Sustainable Mobility Strategy.



#### Contact:

Web address: https://alternative-fuels-observatory.ec.europa.eu/ X handle: https://twitter.com/EAFO\_news LinkedIn: https://www.linkedin.com/company/european-alternative-fuels-observatory/?viewAsMember=true



FAST Danube - Technical Assistance for Revising and Complementing the Feasibility Study Regarding the Improvement of Navigation Conditions on the Romanian-Bulgarian Common Sector of the Danube and Complementary Studies

The project concerns the Romanian – Bulgarian common section of the Danube, where some of the most critical bottlenecks of the Danube are located.

The strategic position of the Lower Danube as part of the Rhine Danube Corridor, ensuring good conditions for navigation is one of the most important activities in this sector.

The overall objective of this Feasibility Study is to identify technical solutions to be implemented in order to improve the navigation conditions for the benefit of safe and efficient traffic on the Danube stretches, throughout the year. During the study, solutions for each critical section was identified based on field measurements, hydrological modelling. The criteria to select a certain technical solution are: technical and economic efficiency, as well as, environmental impacts. By implementing the solutions, will allow us to ensure navigation conditions on the Romanian-Bulgarian common sector of the Danube and safely conducting the transport activities on Danube throughout the entire year, in accordance with the recommendations of the Danube Commission.



#### **Contact:**

Web address: http://www.fastdanube.eu/ X handle: @DanubeFast



A group of leading coordinators of CEF / AFIF co-funded projects show case multiple projects for Charging Infrastructure and Service for Electric Vehicles across Europe: EXPAND-E, CONNECT-E, MULTI-E, EUROP-E, MEGA-E, CROSS-F

The projects will show case their current deployments and future needs for Zero emission Light-Duty Vehicles (LDV) and Heavy-Duty Vehicles (HDV), and the related charging stations / recharging (22 kW upto 350 kW).

The activities include:

1) An indoor exhibition of all the projects 2) The film "EV Journey 2" : electric vehicles arriving to Brussels from different cities in Europe and meeting in the Connecting Europe Days 2024 EU Commission officials, and all Europe's Transport Ministers. To coordinate meetings with the projects during the Connecting Europe days, please contact:



Contact: Amit Yudan, Ardan GmbH: amit.yudan@ardan.at **76** European Union Agency for Railways (ERA)

The European Union for Railways (ERA) in its 20th year of existence looks back at successful years of pan-European collaboration to provide the technical backbone to the Single European Railway Area (SERA) through technical specifications of interoperability (TSI), and a harmonised framework to rail safety in Europe.

Having completed the journey from a technical agency to European authority in charge of rail vehicle authorisation, single safety certification, and ERTMS trackside approval, ERA staff are fully dedicated to maximise value to the European citizen – working hard on further improving rail safety, creating a lean regulatory framework to take the cost out of the sector, and making railways more competitive again.



#### **Contact:**

Web address: era.euorpa.eu X handle: https://twitter.com/ERA\_railways



Voies navigables de France (VNF) is the French navigation authority responsible for the maintenance, operation and development of 6700 km of waterways of its navigation network. VNF is a critical player in promoting and operating French waterways.

VNF has three main public service missions: developing a sustainable inland waterway logistics, contributing to the development of river domains, ensuring the overall management of the water resource.

In respect to these missions, VNF is very much committed to ecological transition, tackling key challenges of the Green Deal.

Some key projects of VNF are currently being funded by the EU; they aim at:

- realizing a wide-gauge fluvial link between France, Belgium and the Netherlands in order to create a better connection between the seaports and the inland ports: Seine-Scheldt project
- providing an efficient and sustainable transport system on the Rhine: Upgrade of Gambsheim lock site
- developing digitalisation of its waterways on the major corridors (North-Sea-Mediterranean,



Rhine-Alpine) in a joint and uniform European strategy for IWT and cross-border interworking of River Information Service : RIS COMEX<sup>2</sup> (Cluster of projects)

- contributing to the energy transition on the Seine Axis through the electrification of the Seine River by cutting CO2 and fuel and maintenance costs (deployment of onshore power)-HAROPA GIE coordinator
- contributing to increase the share of freight transport on inland water transport (IWT) by a minimum of 20% and demonstrate on pilot sites strategies to improve relia bility by 80% CRISTAL (Cluster of projects)
- developing an autonomous waterborne freight feeder loop service for inland waterways and coastal transport to provide safe, reliable and climate neutral transportation: SEAMLESS (Cluster of projects)

Besides VNF has received a recent new funding for the following project:

• Upgrading of the canalized Moselle: providing a large gauge gateway for civilian-defence dual-use: MOMMA

Contact: https://www.vnf.fr/vnf/



The Port of Antwerp-Bruges is Europe's second largest port. It is Belgium's largest economic engine, accounting, directly and indirectly, for a total of around 164.000 jobs and around €21 billion in added value yearly. Moreover, the Antwerp port area comprises Europe's largest integrated chemical cluster.

With the support of European grants, Port of Antwerp-Bruges is realizing several projects in various fields to make the port future-proof and even more sustainable in several areas.



#### Contact: https://www.portofantwerpbruges.com/en



The Agency for innovation in transports in the French Ministry of Transports launched the programme Propulse wich aims to boost the ecological transition in mobility projects.

The AIT would like to take the opportunity to have an indoor booth at the CED to introduce 3 beneficiaries of the call Propulse : Urban Radar, Neptech and Al Cargo.

For the outdoor exhibition, a space for EP Tender which is another beneficiary of Propulse. They will exhibit a Fiat 500 and a mobil battery. The beneficiaries would also be happy to take part of the Market Place at different times.



#### Contact:

https://www.ecologie.gouv.fr/agence-innovationtransports @Agence\_IT\_Gouv

### Exhibition Guide



Connecting the Flemish Transport Network – CEF for Flanders"

Flanders: an ambitious region in the heart of Europe. Small in size but big in potential. Strategically positioned as an active gateway and committed to developing optimal mobility. A partner for innovation and pioneering knowledge. Our aim is to transform our transport system, together with partners at home and abroad, making it more sustainable, safe and seamlessly efficient.

Shared interests, mutual benefits and synergies. That is what Flanders strives for in every collaboration. We are a reliable partner, prepared to share our knowledge, information, resources and people with numerous international projects and initiatives. Because taking on new mobility challenges is something we need to do together. Striving for a better quality of life, better transport and better odds for the climate and the environment collaboratively.

Flanders is committed to greening transport (BENEFIC)



and guaranteeing safe and efficient transport, for vessels (VTS GTC) as well as for road transport (Improving Road Safety in Flanders). With innovative technologies, we develop solutions to make our existing infrastructure smarter, connected and more efficient (Mobilidata) and to optimize our traffic flows and transport management, both through state-of-the art infrastructure (Future proof infrastructure in the Port of Antwerp and New Lock Zeebrugge) as digital solutions(FARO, DigiWave), ready for the mobility of tomorrow. We continue to remove capacity bottlenecks for military mobility and civilian freight transport (ConversionN49).

And our challenges do not end there, we do want to look ahead to the plans and possible opportunities for cooperation in the coming years and decades!

#### Contact:

Main beneficiary/organiser/coordinator: Flemish Ministry of Mobility and Public Works Website: https://www.vlaanderen.be/en/mobility/flanders-together-in-motion witter handle: https://twitter.com/DepartementMOW

## Exhibition Guide

### **INDOOR EXHIBITION PLAN**

_	-
 	7
o	~

1	DG MOVE - TENtec
2	CINEA
3	DG INTPA
4	EUROPE'S RAIL JU
5	SGP SUD-OUEST
6	DUTCH TOPCORRIDORS
7	MALPENSA THE NORTH RAIL ACCESS
8	MAGPIE
9	VIEWWS
10	SIEMENS MOBILITY GMBH
11	ACTIVE CITIES LEEUWARDEN
12	MOVE21
13	ACI EUROPE
14	LAURELIN
15	RAIL-TO-AIR
16	SCALE-UP
17	KEYSTONE
18	GREATER4H
19	PORT OF GDANSK
20	EUSBSR PA SAFE & PA SHIP
21	ABS 38
22	GREEN C PORTS
23	THE WUNDERLINE
24	C-ROADS ANTWERP-HELMOND
25	TUNNEL EURALPIN LYON TURIN
26	RAILWAY EXPANSION PROJECT ULM-
	AUGSBURG
27	CENTRALNY PORT KOMUNIKACYJNY(CPK)
28	KNORR-BREMSE SYSTEME FÜR 29
	ACCESS2NAPA
30	PORT OF ROENNE
31	SUPPLY CHAIN VALLEY

FAIRWAY DANUBE II
NORTH SEA PORT
ATLANTE
ACEM - MOTORCYCLE MANUFACTURERS
ALFION-INFRA
RENEW
ENVELOPE - EVENTS - PODIUM
BILBOPS
INFRASTRUCTURE MALTA
ENERGIEHAVEN IJMOND
FEMERN
BOTHNIAN CORRIDOR
ESPO
RATP GROUP
DOCKS THE FUTURE
LIFE GREEN VULCAN
AWARD
IRISH MARITIME DEVELOPMENT OFFICE
SEINE-ESCAUT
EFTI4EU
LOGISTICS OVERIJSSEL
SCANDRIA ALLIANCE
CARGOBEAMER AG
DB INFRAGO
EUROVELO
AUGMENTED CCAM
RTW PLANUNGSGESELLSCHAFT MBH
The Brenner Corridor Munich-Verona
DRESDEN-PRAGUE
S4 HAMBURG
ECHOES
UNIEF



## Connecting Europe Days 2024

### Exhibition Guide



RAIL BALTICA
TWIN PORT V
ESPORG
RFC NETWORK & RAILNETEUROPE
TERCOFIN-SEAFAR
CZECH HIGH-SPEED LINE PROJECT
ELECTRONIC FREIGHT TRANSPORT
MULTIMODAL TRAFFIC
MANAGEMENT CLUSTER
INFRABEL
EUROPEAN ALTERNATIVE FUELS
OBSERVATORY (EAFO)
FAST DANUBE
E-MOBILITY CLUSTER
EUROPEAN UNION AGENCY FOR
RAILWAYS
VOIES NAVIGABLES DE FRANCE
PORT OF ANTWERP-BRUGES
DE VLAAMSE WATERWEG NV
MOW VLAANDEREN