TEN-T Core Network Corridors
Atlantic Corridor

3rd Phase
Final Report 2

August 2022

Report title:

STUDIES ON THE TEN-T CORE NETWORK CORRIDORS AND SUPPORT OF THE EUROPEAN COORDINATORS, 3rd Phase

Lot 7, Atlantic Corridor

Final Report II

Reference:

DG-MOVE Reference: MOVE/B1/SER/2018-216/SI2.782702 (Lot 7)

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Date: July 2022, delivered August 2022
Version: 1.0

Lisbon, Portugal

Abstract

The Atlantic Corridor has an important maritime dimension and offers significant potential to increase its modal share of rail, especially for freight transport. There are also important opportunities in the field of innovation, especially related to alternative fuels, e-maritime/e-freight and Cooperative ITS (C-ITS). The main strategic goals of the development of the Atlantic Corridor are enhancing modal integration, further exploiting maritime connectivity, and addressing railway interoperability. Since 2021, with the adoption of CEF 2 package, the Atlantic Corridor saw its maritime dimension further extended with the maritime connections to Ireland and to the Canary Islands. Overall, the Atlantic corridor counts now with 18 maritime ports, 8 inland ports and 3 inland waterways.

The Final Report of the Phase 2 of the Atlantic Corridor Study III presents the results of the work accomplished to further elaborate the corridor knowledge base, refine the Project List and monitor and analyse the state of the project implementation and reporting. The analysis performed showed that ATL Corridor has already achieved a high level of compliance with several TEN-T requirements with most of remaining gaps expected to be filled by 2030 including rail electrification, train length, availability of clean fuels at ports and along roads and the connection of Madrid Barajas Airport to the high-speed rail network. TEN-T compliance is not expected to be achieved by 2030 for track gauge and ERTMS. Although overall 97% of the rail network is classified as compliant for track gauge, about 35% of that extension is not yet fully operational (i.e., it is prepared for the transition to UIC nominal track gauge with polyvalent sleepers or with third rail).

The total official cost of the planned projects in the 2021 Atlantic project list amounts to 65,543 million euros (available cost data for 88% of the projects), representing an increase of €16.7bn compared to the previous project list (an upsurge of 34%). Despite the increase in the number of projects completed, a continuous increase in the share of projects being shifted to later periods and or referred to as unknown completion dates is observed. This continuous delay and/or uncertainty in the project completion dates may compromise the deadline for completion of 2030, especially if projects are delayed until after this period

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Acronyms and Abbreviations

ATL	Atlantic core network corridor
AVEP	Alta Velocidad España-Portugal
bn	Billion
CBA	Cost benefit analysis
CBS	Christophersen Bodewig Secchi (Reports)
CEF	Connecting Europe Facility
CF	Corridor Forum
C-ITS	Cooperative Intelligent Transport Systems
CEF	Connecting Europe Facility
CNC	Core Network Corridor according to Regulation (EU) 1316/2013
CNG	Compressed Natural Gas
CEMT	Classification of European Inland Waterways
DE	Germany
DG MOVE	European Commission – Directorate General for Mobility and Transport
EC	European Commission
EIB	European Investment Bank
ERTMS	European Rail Traffic Management System
ES	Spain
EU	European Union
FR	France
GPSO	Grand Projet Sud-Ouest
ICT	Information and Communication Technologies
IE	Ireland
ITS	Intelligent Transport Systems
IWW	Inland waterway
km	kilometre
KPI	Key Performance Indicator
MMTMS	Multimodal Transport Market Study
MoS	Motorway(s) of the Sea
MS	Member States of the European Union
PT	Portugal
RFC	Rail Freight Corridor
TEN-T	Trans-European Transport Network
TENtec	Information system of the European Commission to coordinate and support the TEN-T Policy
ToR	Terms of reference
WG	Working group

1. Introduction

1.1. Outline

The present report constitutes the **Final Report II** for the 3rd Phase of the Atlantic Corridor Study. It covers the work developed in tasks 1, 2 and 3 in phase II **since June 2020 to June 2022**, also taking into account the contributions made in the Corridor Forum meetings. The meetings of the Corridor Forum are used to receive feedback on draft results, further input and to validate consolidated results. Overall, studies aim to provide technical support to the European Coordinator to develop the corridor Work Plan. The different tasks have been carried out, as in the past, adopting consistent methods, applied across all nine corridors, and common data for overlapping corridor sections. The different methodologies have been developed during working groups in which all corridor teams have participated.

The TEN-T Core Network Corridors (CNCs) were formally introduced by the European Commission in 2013 as the main vehicle for coordinating and prioritising transport investments in Europe and for concentrating EU financial assistance from the Connecting Europe Facility (CEF). The nine designated core network corridors form the backbone for a new era of transport policy in Europe, together with two horizontal priorities – ERTMS and MoS, the developments and priorities of which integrate and complement that overarching policy.

In 2014, the European Commission launched the first series of studies to prepare workplans for each of the nine corridors. These initial studies were followed by the 2015-2017 corridor studies which developed the nine corridors further, refining the 2014 workplans, and continuing the high level of stakeholder engagement through the Corridor Forum meetings and working groups, leading to the second and third workplans. Those studies finished in December 2017.

The current 2018-2022 study is a continuation of the work with an emphasis on maintaining a high degree of up-to-date information about the corridor and its project list and further developing the TEN-T network in Europe through close collaboration between EU stakeholders and the EC.

Although the work development had started already in the first loop of the 3rd phase of the corridor studies, the 2nd loop is largely marked by the adoption of the CEF2 package establishing the corridor extensions. For the Atlantic corridor, the corridor extensions represented the inclusion of Ireland as a fifth Member State, the addition of 1,083 kilometres of road, 3,000 km of rail sections and 301 km of inland waterways in Portugal, Spain and France. Moreover, the new alignment of the Atlantic Corridor includes 10 new maritime ports, 2 new inland ports, 4 new airports and 4 new rail-road terminals.

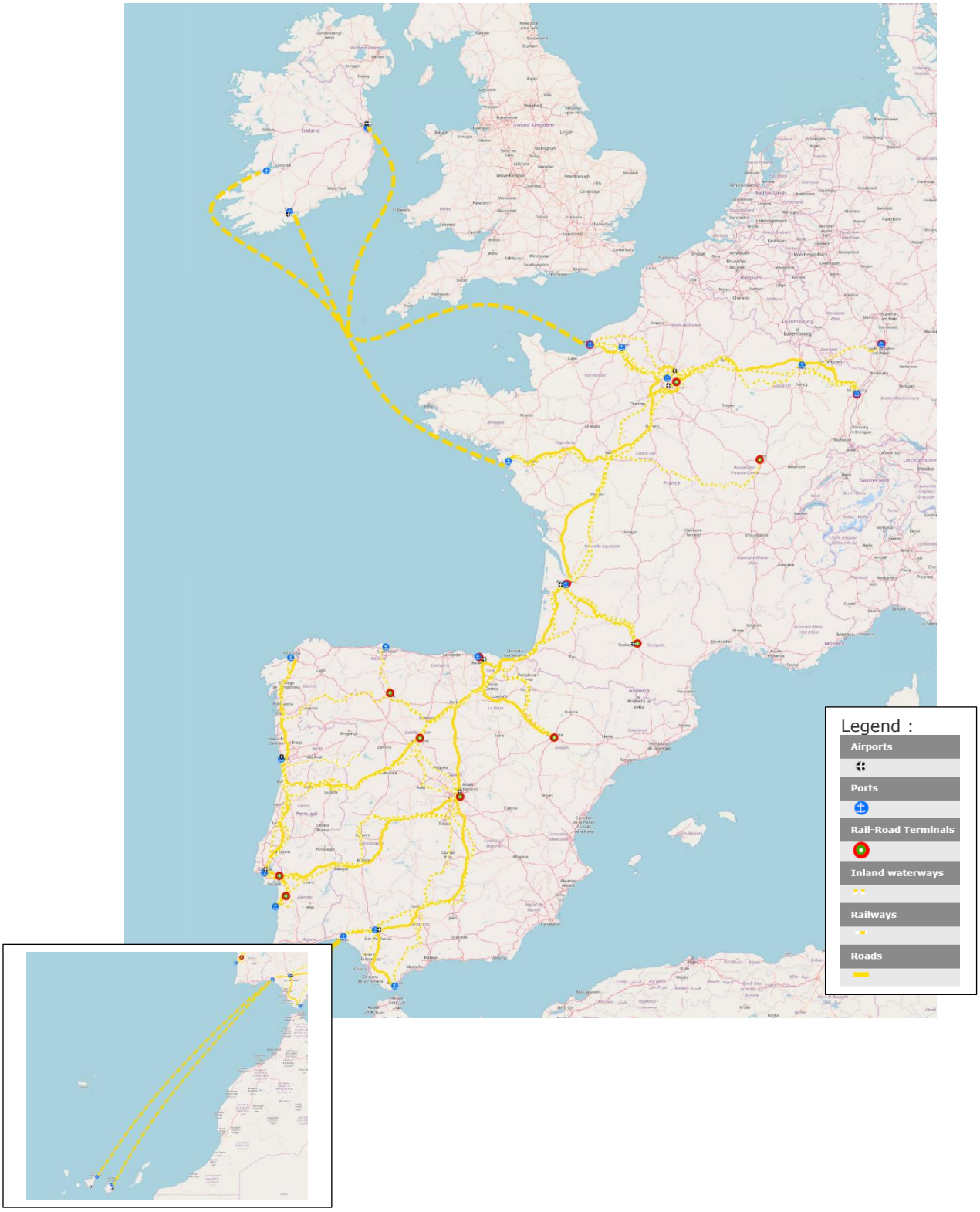
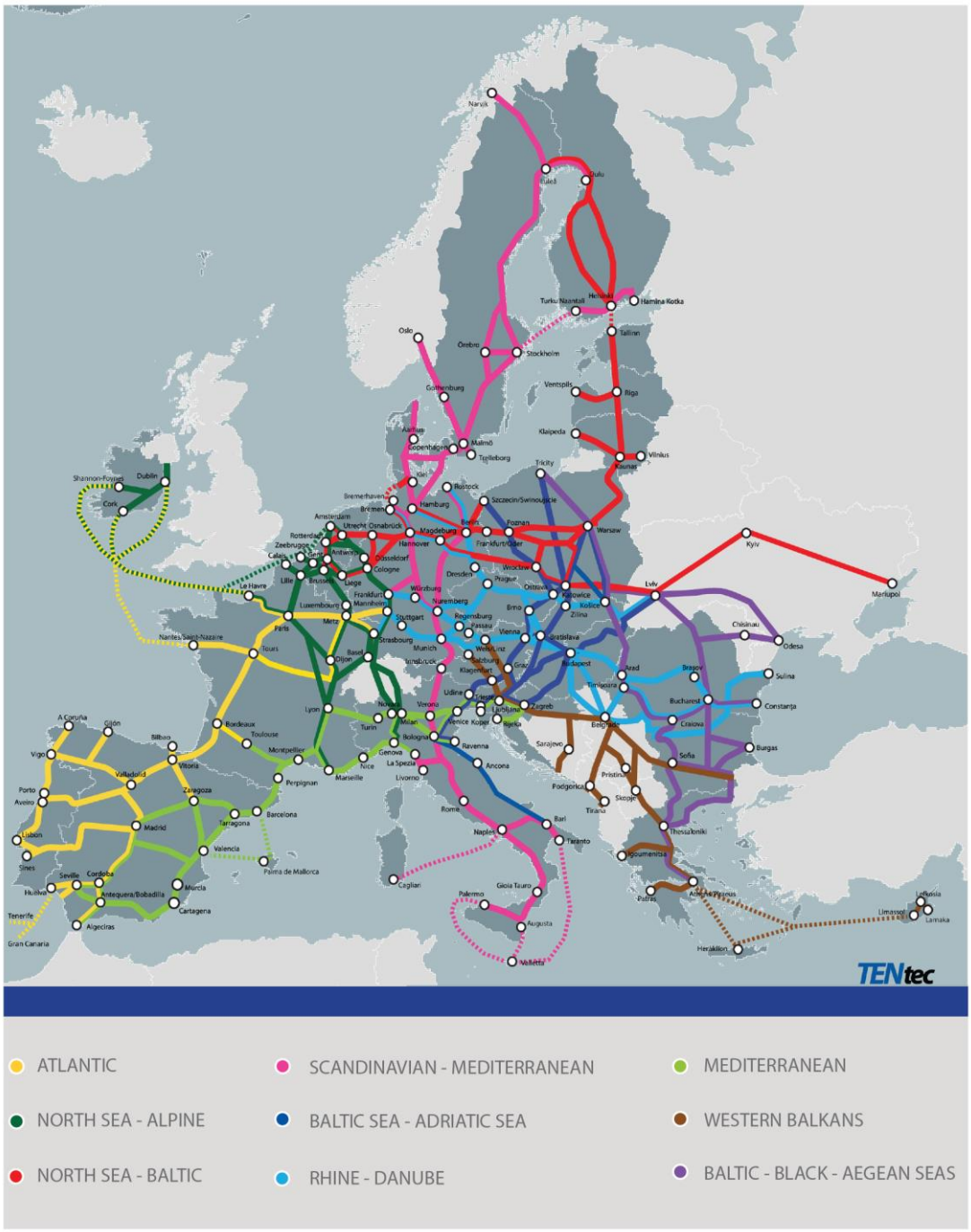


Figure 1: Alignment of the Atlantic Corridor as extended by CEF2 Regulation

In December 2021, the Commission presented its proposal for revised TEN-T Regulation, more clearly defining the role of the urban nodes on the network and their constituting elements, and sets additional requirements technical parameters, besides further extending the alignment of the Core Network Corridors – the European Transport Corridors – introducing an extended core network and integrating Rail Freight Corridors

to the previous CNCs. The Atlantic European Transport Corridor will be reinforced by the integration of the Atlantic Rail Freight Corridor. The extended core network will also bring the opportunity to include important cross-border sections in the Corridor, namely the Porto-Vigo rail section, the core road network to the port of Brest, as well as the extended rail network to the comprehensive port of La Rochelle and in the addition of the Tagus River as part of the Corridor's IWW network. This proposal will take effect after its adoption expectedly during 2023, nevertheless its main orientations already impact in the development of the corridor activities and in the Coordinator Work Plan.



The parts of the map pertaining to corridor alignment in third countries are indicative.

Source: TENtec, DG-MOVE.

Figure 2: Overview of the proposal for the European Transport Corridors

The report takes as starting point the past Coordinator Workplans and endows it with the main developments from the study. Gathering together local knowledge, multimodal expertise and previous experience will help to optimise the collection of information and data analysis processes, and therefore to establish a sound and solid basis for developing the work plan.

The five study main tasks in this study are:

1. Updating the corridor knowledge base
2. Maintaining and updating the project list
3. Monitoring project implementation
4. Updating the workplan
5. Supporting the EC and European Coordinator in the corridor forum and working groups.

1.2. Study Objectives

Considering the objectives of the CNC study as outlined in the tender specifications, the main tasks of this assignment are:

- **Support** to the **Commission/DG MOVE** and the **European Coordinator**
- Analysis and reporting of the **progress** made on the **Corridor** and monitoring its **evolution**, including:

  - Analysis of the Corridor's evolution with respect to compliance with technical requirements and changes in the Corridor's KPIs based on the completed projects

  - Consideration of proposed changes in the CEF Regulation in relation to Corridor alignment

  - Ensuring the structures supporting the Corridor's evolution – its Working Groups and Corridor Forum meetings – work in a smooth and continuous way

- To propose a refinement of the CNC Work Plan, including:

  - An enhancement and deepening of its knowledge base, including the assessment of its implementation by updating information on markets, technical compliance, bottlenecks, innovation projects and progress made on pilot initiatives

  - An identification of additional projects contributing to further technical compliance and shift to environmentally friendly transport modes and removal of bottlenecks

The Atlantic (ATL) corridor study has been developed by a consortium consisting of:

- TIS
- INECO
- Egis
- BG
- M-Five
- Panteia

The European Coordinator for the ATL corridor is Prof. Carlo Secchi with the support of Ms. Julie Buy since April 2022, who is the Advisor from DG MOVE replacing Ms Isabelle Maës who followed the corridor until the end of March 2022.

1.3. Harmonised and coherent elaboration of CNC study

In order to achieve a coherent approach of the analyses and obtain coherent results, the various consultants consortia, based on the instruction of DG MOVE, have established two **cross-corridor Working Groups** with the other 8 CNC study consortia, in order to elaborate joint methodologies.

Their work has begun in July 2018 and is permanently continued until the end of this study contract. In this phase, following cross-Corridor Working Group meetings were carried out:

- 'Task 2/3 Working Group' addressing issues related to the project list (task 2) and the project implementation reporting (task 3).
- WorkPlan Working group addressing the common structure for the Corridor WorkPlans

Members of the consultant teams of every Corridor have attended these meetings, which have been carried out since the beginning of the Corridor Studies.

The figure below presents a detailed overview of the tasks and sub-tasks of the Corridor Studies.

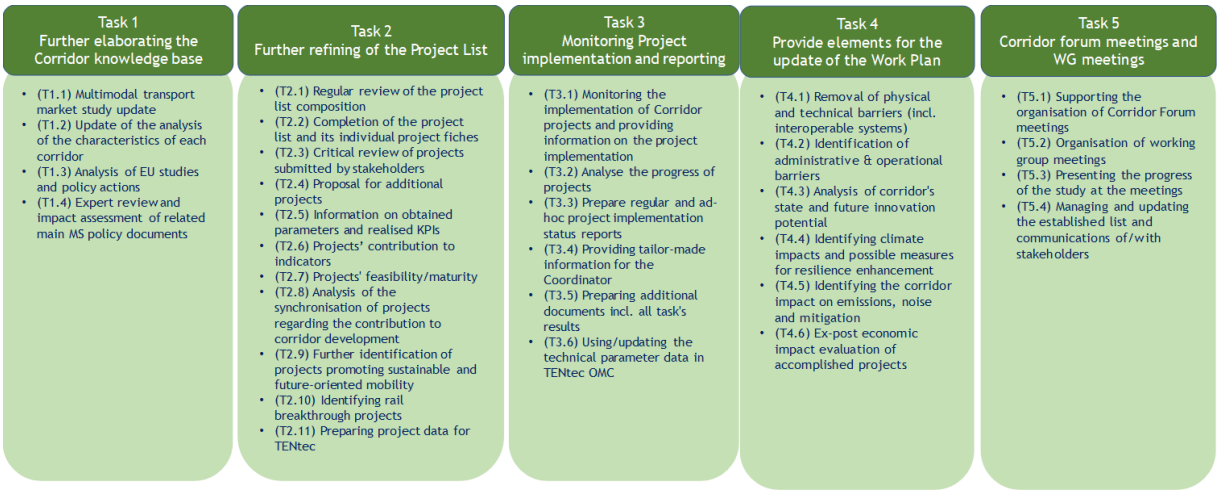


Figure 3: Overview of study tasks and sub tasks

1.4. Document Structure

The report is structured as follows:

- **Chapter 1** lays out the main information on the Study;
- **Chapters 2 to 6** presents the summary of the study, notably the achievements for the various tasks:
  - Task 1 – Elaboration of the corridor knowledge basis
  - Task 2 – Further refining the Project List
  - Task 3 – Monitoring and analysing the state of project implementation
  - Task 4 – Elements for the updates of the Work Plan
  - Task 5 – Corridor Forum and Working group meetings

- **Chapter 7** highlights the main conclusions of phase 2 of the Corridor Studies.

The report describes the efforts of the Consultants in the past 24 months, presenting the state of the art of the activities and an overview of the steps performed in the Phase II of corridor studies for the period July 2020 – June 2022.

The results presented herewith are analytically developed in the following deliverables, presented to the Commission during the last 2 years:

1. Inception Report – phase 2 (July 2020)
2. Project Implementation Report 2/2020 (October 2020)
3. Corridor Study Update 2 (March 2021)
4. Project List Update 2021 (May 2021)
5. Project Implementation Report 1/2021 (May 2021)
6. Intermediate Report Phase 2 (August 2021)
7. Project Implementation Report 2/2021 (October 2021)
8. Project Implementation Report 1/2022 (planned May 2022, delivered July 2022)
9. 5th Work Plan (1st version December 2021, final version to Member States June 2022)
10. Final Report II (August 2022)
11. Monthly Management Reports
12. Regular Press Reviews
13. Answers to specific requests by the Coordinator on Corridor-related matters

2. Further elaborating the Corridor knowledge base (Task 1)

2.1. Outline

Task 1 is focused on establishing a knowledge base for the Corridor for further strategic analysis. During the previous studies, a large amount of data has been collected and many analyses have been undertaken. This task is continuing this work and further analysing the development of the Corridor. The nine CNC study teams are applying a consistent and comparable methodology with respect to the previous studies.

This task has been performed between **November 2020** and **February 2021.** This task builds forth on previous studies, and in particular the previous Corridor Study Update carried out in 2018. The Corridor Study Update provided inputs for tasks 2 and 4, leading into the Coordinator's 5th Work Plan.

The Corridor Study Update was originally scheduled for November 2020. However, delivery was **postponed to February 2021** to allow for the inclusion of the Corridor extensions. While it was originally foreseen to include the years 2018 and 2019, the rescheduling offered the opportunity to also include the year 2020. In doing so, this study is no longer synchronous with the update of the project list, which serves as a basis for the study. During this phase of the study, the last update of the project list dated back to September 2020. Therefore, there was still some uncertainty with regard to the projects that were planned to be completed between October and December 2020. Where possible, the completion of these projects was verified with stakeholders.

The main development areas in Task 1 are:

- Multimodal Transport market study for the Corridor,
- Update of Corridor characteristics, the state of the infrastructure with respect to Article 39 of the Guidelines, as a result of the on-going Corridor infrastructure projects,
- Identification and analysis of other EU studies and relevant policy actions.
- Review of the main national policy documents of the Corridor Member States and assessment of the impact on CNC development.

With the start of the second part of this study phase (06/2020), task 1.1 on the Multimodal Transport Market Study has been omitted. For the team involved on this task in the previous round, a large extent of time was dedicated to the collecting data on base-flow. In this regard, it was agreed during the Management Meeting held on 25 June 2020 to suspend the MTMS analysis

The following sections summarises the results of tasks 1.2, 1.3 and 1.4.

2.2. Update of Corridor characteristics (Task 1.2)

The objective of this task is to provide an update to the characteristics of the Corridor for the years of 2018, 2019 and 2020. This is carried out by tracking and monitoring the achievements in terms of KPIs per TEN-T Core Corridor section and node, according to the infrastructure targets and definitions set out in Regulation No. 1315/2013, Article 39.

The analysis of task 1.2 concludes with an overview of the critical issues that remain to reach compliance. These critical issues were updated based on the most recent project list and presented in the 5th Work Plan.

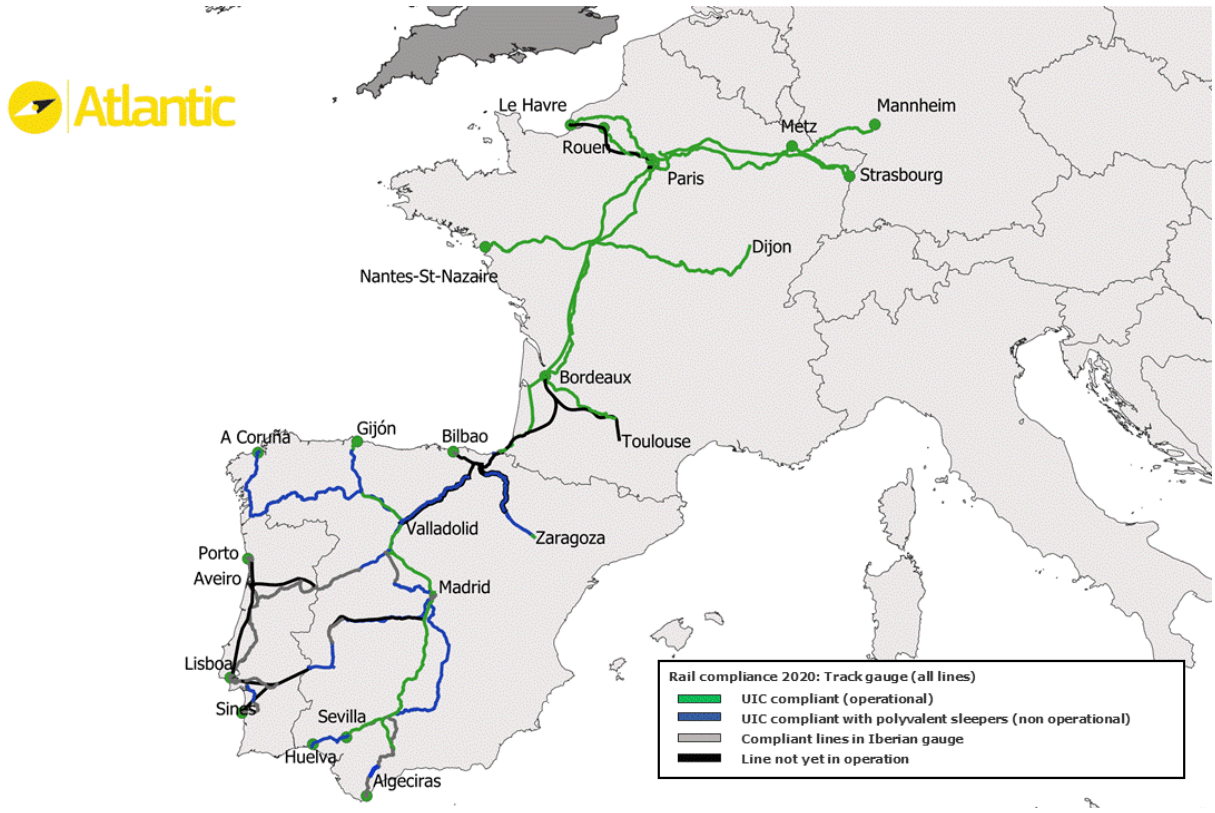
The development of this task has been particularly demanding for the Atlantic corridor team once the extension of the corridor has almost doubled both in relation to linear and nodal infrastructures. This implied large data collection efforts and the development of all KPI calculations for the "old" and "new" corridor to assess the impacts of the extensions in the corridor performance levels.

Additionally, during the finalisation of the 5th WorkPlan, it was agreed with the Advisor upon her request, to include some adjustments to the KPI methodologies, notably in relation to railway gauge to better reflect the specificity of the Atlantic corridor.

The methodology to calculate the compliance rate of the deployment of European rail nominal track gauge of 1435 mm (hereafter European standard track gauge) on the Corridor considers as compliant the Iberian track gauge lines equipped with polyvalent sleepers or with a third rail. This type of railway sleepers allows changing the gauge by relocating the rails in the sleepers at the appropriate width corresponding to 1435 mm European standard track gauge. Hence, without prejudging of the complexity of such migration in terms of management, this technique prepares the ground for a future switch to the European standard track gauge.

As such, for the Atlantic corridor UIC gauge parameter has been desegregated in the following three categories:

- UIC compliant (in operation)
- UIC compliant (non-operational), i.e., the sections equipped with the polyvalent sleepers
- Compliant Iberian lines track gauge lines in operation before 2014



2.3. Identification and analysis of other EU studies and relevant policy actions (Task 1.3)

The objective of this task is to identify and analyse other relevant EU studies and policy actions in terms of their impact on the functioning and the further development of the Corridor. The studies and policies covered topics, such as Motorways of the Sea, ERTMS, alternative fuels, ITS, urban nodes, cross-border issues, Good Navigation Status, climate change, military mobility, the Green Deal, resilience.

Based on a common methodology among all CNCs, the conclusions and findings of the respective studies in terms of their impact on the functioning and the further development of the Corridor were part of the Corridor Study Report II.

2.4. Review of the main national policy documents of the Corridor Member States and assessment of the impact on CNC development (Task 1.4)

In addition to task 1.3, this task refers to a critical review of the main national policy documents of the Corridor Member States, such as national transport plans or national development plans, as well as an assessment of their impact on the ATL Corridor. Each CNC study consortium was responsible for the analysis of several Member States and sharing the results with all other Corridors (DE, ES, FR, IE and PT, in the case of the ATL).

Studies and national policy documents were identified and for each one, their impact/relevance to Corridor topics was assessed. These were collected in an Excel database and reviewed per country and per topic (macro regional, feasibility studies, transport development, governance and strategy papers). The database contains the following elements: study information, scope, year of publication, public availability, Corridor, main findings and a check for a link to Corridor topics (KPIs, urban nodes, AF, Climate change, etc.).

Conclusions and findings of the respective studies in terms of their impact on the functioning and the further development of the Corridor were part of the Corridor Study Report II and were also part of the presentation during the Corridor Forum in March 2021.

Although the output of this activity was reported in the Corridor Study Update, this task is being continuously updated. In particular it is worth noting the review and analysis of the Recovery and Resilience Plans prepared by the different Member States to assess the impacts of this instrument for the corridor performance as well as the regular follow up of new plans and policy decisions such as the new Climate Law in France or the Smart and Sustainable Strategy in Spain.

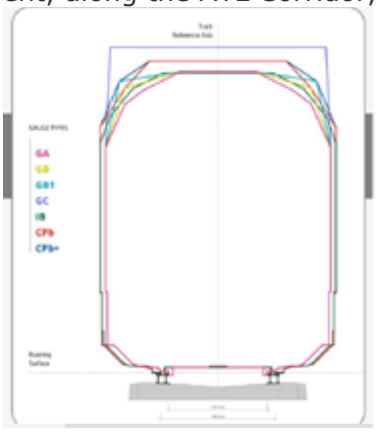
2.5. Loading gauge and P400

Loading gauge

For rail, the loading gauge parameter is not a formal requirement of the current TEN-T Regulation, but has been proposed by the Commission in the context of the revision of the TEN-T Regulation. Although this KPI is not yet measured, along the Atlantic Corridor, major bottlenecks for the deployment of rolling motorway systems persist: In Spain between Huelva / Algeciras and Zaragoza (~40 tunnels); in France between Dax and Hendaye (3 tunnels), between Poitiers and Bordeaux (4 tunnels), between Meaux and Epernay (3 tunnels) and between Metz and Strabourg (1 tunnel).

For a variety of historical and geographical reasons different loading gauges are found along the Corridor, and this has direct implications, especially in terms of the aims or targets that might feasibly be set when developing interoperable cross-border routes. In particular, the ability to carry standard (4m high) road trailers by rail (P400) is seen as an appropriate target for the EU rail network.

At present, along the ATL Corridor, different load gauges exist:



- PTb+ in Portugal[1]
- IB in Spanish freight lines
- GA in the German sections of the corridor
- GB and GB+ along the freight lines in France
- GA in France for the additional link Bordeaux – Saintes – Niort - Poitiers
- GC on the newer high-speed lines, between Metz and Strasbourg and Tours-Bordeaux

These existing load gauges act as a constraint towards a harmonised rail network and impact rail freight performance, notably in view of the Rolling Motorways in the corridor.

In 2019, the Atlantic Rail Freight Corridor, with SNCF Logistics, DB Cargo and Kombierkehr, started a data measurement process with a wagon test on their commercial trains running from Spain to Germany (both direction). The exercise is expected was expected to be carried out along the Portuguese network throughout 2020, but since the Covid 19 pandemics the exercise has been suspended.

[1] PTb+ weight is larger than GB however the height is minor than the one of the GC gauge. It is noted that for the new line Évora-Caia, the structure gauge will be the PTc. This gauge has the same height as the GC, allowing for the circulation of high-cube containers

3. Further refining of the Project List (Task 2)

3.1. Outline

In the first two phases of the TEN-T corridor studies, it became apparent that the Project List is the key tool for monitoring and coordinating the further development of the Corridor. This includes the technical analysis of projects with respect to their contribution to the Corridor objectives (cf. the "KPI" columns of the project list). Moreover, it allows mirroring the projects and their impact against the Corridor´s bottlenecks and non-compliant sections according to Regulation 1315/2013 (gap analysis).

In the past study phase, the activities related to the project list continued. In principle, the methodologies and working procedures established in period 2018-2020 have proven to be efficient to deliver results in desired timing and quality. Therefore, these methodologies have been applied also during the past project phase without substantial changes.

In line with the requirements of the tender specifications, the Project List structure has been modified considering, e.g. the revision of the CEF regulation and possibly new monitoring indicators (Task 1.2), aspects of innovation and sustainability (Task 2.1), project financing (Tasks 2.3, 3.1), evaluation of speed and capacity (Task 2.5), the transfer of project data to the TENtec system (Tasks 2.11, 3.6) and the detailed monitoring of project implementation (Task 3).

3.2. Activities performed

Discussion and agreement on common views as well as coordination of work was carried out by a cross-corridor working group. This working group consisted of the project list lead partners from all consortia and tackled all project list related issues from Task 2 and Task 3. The working group was led by Hacon (in relation to Task 2) and KombiConsult (in relation to Tasks 3.1-3.3).

During this phase, several working group meetings took place (online), particularly in order to prepare the management meetings with the Commission and the "big" project list update. This "big" project list update started with the preparation phase in autumn 2020 and ended with the formal approval of the project list by DG MOVE on 3 May 2021. During this period, the following main work steps were executed:

- Preparation of the common Project List structure – September 2020;
- Merging of all corridor Project Lists to one cross-corridor list;
- Data gathering at project promoters; merging of all contributions to one corridor list;
- Coordination with Member States, other stakeholders and European Commission in different check/validation rounds; after each round merging to one cross-corridor Project List;
- Finalisation of the cross-corridor overall Project List: several consistency checks (HaCon), whereas responsibility of contents remains with the indicated responsible partner.
- Final Project List serves as an input for the user-friendly tool (developed and implemented by Panteia);
- Modification of Project Fiche layout and data feeding mechanisms;
- Check, gathering and creation of project maps;
- Creation of Project Fiches and provision in a web space – 31st May 2021.

The main outcome of Task 2.1 and 2.2 is the updated set of project fiches. These fiches comprise information on a 2-page document for each project.

In addition, a specific tool was implemented to facilitate the visualisation of the Project List. The User-Friendly Tool (UFT) – developed by PANTEIA – allows users to select input parameters upon which the Project List should be filtered and returns the Project List, the key information on projects that fulfil the search criteria and statistics based on the generated project list.

4. Monitoring and analysing the state of project implementation and reporting (Task 3)

4.1 Outline

The structure of the regular Project Implementation Report (PIR) for all nine CNCs has been jointly elaborated in the Task 2/3 Cross-Corridor Working Group. It included a detailed approach of analysis, results and detailed structure and allows for monitoring the development of project implementation in 6 months periods. This structure and the associated methodology of analysis were agreed with the Commission in 2018.

Based on this approach, six **Project Implementation Reports (PIR)** have been delivered:

- PIR 2/2019
- PIR 1/2020
- PIR 2/2020
- PIR 1/2021
- PIR 2/2021
- PIR 1/2022

For each of the first three of them and the last two a dedicated "narrow" update of the project list has been performed. "Narrow update" means that Member States and other stakeholders are requested to update only selected project parameters, which are particularly relevant for the semi-annual monitoring. These are parameters on project maturity and implementation as well as project costs and financing/funding. In contrast, deactivation of projects not pursued anymore and adding of new projects as well as the modification of other project parameters are not in the focus of the "narrow" updates.
The PIR 1/2021 was elaborated on the "big" update of the project list (see chapter 3).

The next figures from the latest PIR 1/2022 enable a good overview of the corridor development. The first graphic shows that completion of the projects pipeline is below 20%. The cost figures highlight that despite the relevant increase of budget figures referring to completed projects (2nd graphic), the highest share of the costs is concentrated in the period 2026 to 2030 with almost 50% of the project cost being postponed to that period. Additionally, the 3rd graphic shows that approximately 53% of the provided budget remains open, despite the different exercises for updating financing and other maturity data promoted every six months with the Corridor's stakeholders.

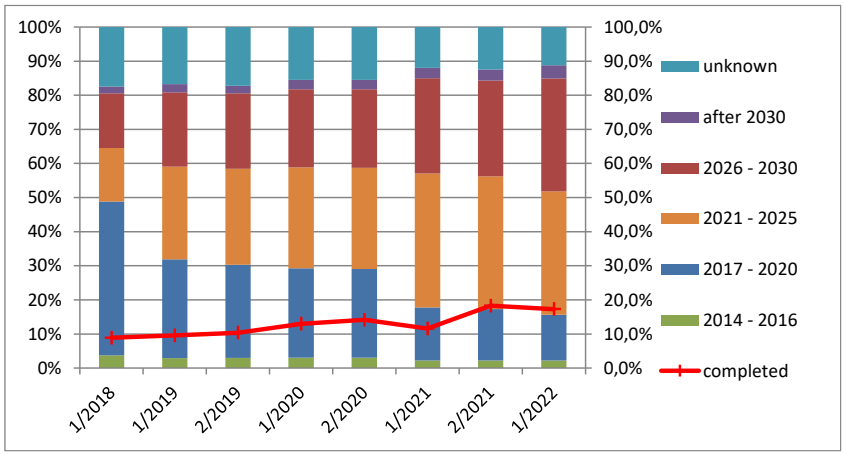


Figure 4 - Evolution of Maturity criteria "expected completion time" since the first Implementation Report (Share of projects)

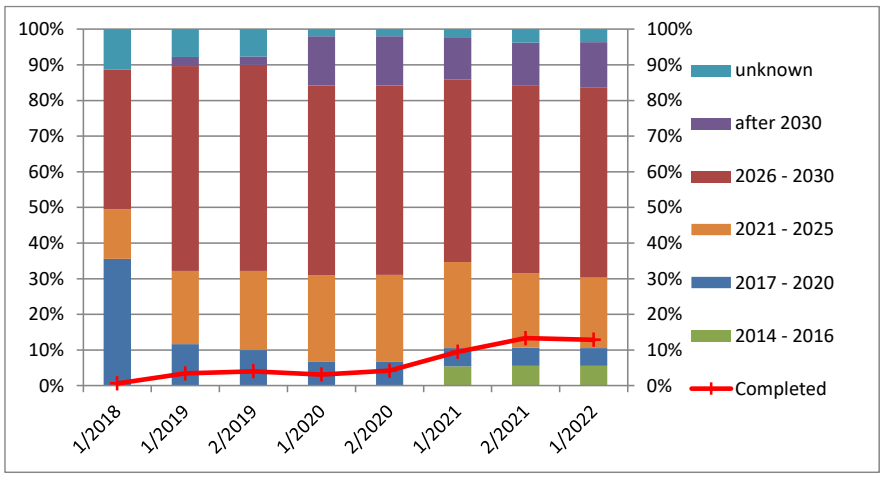


Figure 5 - Evolution of Share of Total Cost by completion time cluster since the first Implementation Report

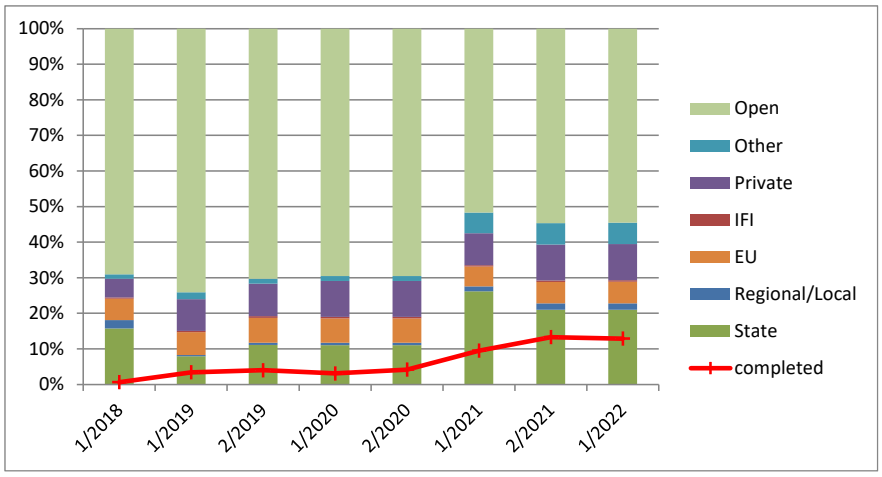


Figure 6 - Evolution of Project Financing Source (Share of Source) and value of completed projects in Million €

4.2 Support to the Coordinator

Task 3 also includes the provision of inputs for the Coordinator's missions and the preparation of further documents including results from other tasks. Both Task 3.4 and 3.5 were subject to specific requests, including:

- Participation in dedicated meetings and missions:
  - online bilateral meetings with Member States on the revision of the TEN-T Regulation and future projects (ES, FR and PT), October and November 2020
  - Four AVEP meetings
  - Meeting with EC staff dealing with Military Mobility, September 2020
  - Dedicated meeting with the Coordinator and the President of ADIF, December 2020
  - WG meeting interoperability ES-FR, May 2020
  - Webinar on the International South Corridor (CIS) in Portugal with the participation of Professor Secchi, July 2021

  - Meeting with Portugal (SoS for infrastructures and SoS for ports and airports), September 2021
  - Connecting Europe Express Train (CEE), Lisboa conference and journey towards Bordeaux with several meetings with PT, ES and FR stakeholders
  - Meeting with the new PT representative, June 2022
  - Connecting Europe Days, Lyon, June 2022 – bilateral meetings with Portugal, Spain, Aquitaine and Occitanie regions, with Spanish MEP, ad hoc meetings with various Atlantic stakeholders
  - Dedicated meetings on the Work Plan
- Preparation of materials based on the project list for missions with MS
- Analysis and update of the main priority investments in the different MS, considering national recovery plans
- Support on the preparation of the Corridor newsletter
- Support on the analysis of the proposal for new urban nodes, in line with the revision of the TEN-T Regulation

4.3 Update the technical parameter data in TENtec

The update of TENtec data, taking stock of projects concluded in 2018-2020 as well as the general check of TEN-T compliance parameters, has been discussed with the TENtec team in several online meetings. According to agreement with the Commission, these works were executed on basis of the "big" update of the project list and finalised by June 2021.

In preparation of these activities, the TENtec team had enabled the software to filter the Corridor extensions from the CEF-2 Regulation. The Consultants organised the workflow across the corridors, with particular respect on the responsibilities for overlapping sections.

5. Providing the elements for the updates of the work plan (Task 4)

5.1 Outline

The key objective of Task 4 was the further update of the Coordinator's Work Plan into its 5th consecutive edition scheduled for delivery in the end of year 2021. The Corridor Work plan is the key document of each CNC. Regulation No.1315/2013 assigned to each European Coordinator, for the Core Network Corridor under his/her respective responsibility, the task of preparing the Work Plan - which summarises the current state of infrastructure along the Corridor and sets out the challenges for future infrastructure development – and submit it to MS for approval.

The 5th Work Plan draws upon: the Project List 2021 (project implementation status as of June 2021); KPIs (status June 2021); Corridor Fora, Working Group Meetings and Coordinator's missions. Specifically, the methodology foreseen for the update of the Corridor Work Plan includes the elaboration of the following tasks:

- Identification of physical and technical barriers (including the deployment of interoperable transport systems) and possible solutions for their removal – task 4.1
- Identification of potential administrative and operational barriers along the Corridor and proposed measures to alleviate them, in particular cross-border issues and issues concerning the nodes on the Corridors – task 4.2
- Analysis of the Corridor's current state of and its future potential for innovation deployment, and its impact on the Corridor's overall performance – task 4.3
- Identification of possible impacts of climate change on the existing infrastructure and possible measures to enhance its resilience – task 4.4
- Identification of possible impact of the Corridor deployment on health impairing emissions and noise and other negative impacts on the environment, as well as measures to mitigate them – task 4.5
- An ex-post evaluation of the economic impact of the implementation of Corridor projects on the local or regional economy in terms of growth and employment created – task 4.6

Similar to the elaboration of the previous 4th Work Plan in 2019, a new structure was agreed upon, which included the elaboration of tasks 4.1 (and 4.2, while tasks 4.3 to 4.6 were partly tackled within other analyses/contexts. In the present Work Plan, Tasks 4.1 and 4.2 were updated according to the work carried out during the third phase of the Corridor study-second period 2020-2022, while the new content agreed did not include Tasks 4.3, 4.4, 4.5 and 4.6. The part on the Multimodal Transport Market Study was also omitted.

The 5th Work Plan is the last one adopted under the current TEN-T Regulation and under the current mandate of the European Coordinators. It also reflects on the impacts of the COVID-19 pandemic. Therefore, the emphasis of this version was on impact of COVID and the latest and future political/regulatory developments (i.e. TEN-T revision process, Green Deal, revision of other Directives such as AFI Directive, adoption of CEF 2, etc.) and their related impact on the Corridor and its financing.

5.2 Activities performed

For the elaboration of the 5th Work Plan, a coordination work among the consortia and the Commission took place to align on structure and contents to be included in the document. The first common draft structure of the 5th Work Plan was originally sent to the 9 CNC consortia and discussed at the 6th Management Meeting (April 2021).

The agreed common structure was designed to include essential relevant information. As such, the 5tth Work Plan is guided by the following key orientations:

- ERTMS Corridor specific analysis: ERTMS deployment and EDP compliance delivered by ERTMS DMT Consultant (Sections 2.2 and 3.2).
- Motorways of the Seas: MoS Deployment Plan common text (generic for all 9 CNCs) delivered by MoS Consultant Circle (Section 4.1).
- Deployment of alternative fuels infrastructure: common text delivered by DG MOVE B1 (Section 4.2).
- Urban Nodes: common text delivered by DG MOVE B1 (Section 4.3).
- Green Deal and the Recovery and Resilience Fund: common text delivered by DG MOVE B2 (Section 5.2).
- New Connecting Europe Facility (CEF2): common text delivered by DG MOVE B2 (Section 5.3).
- Military Mobility in the network development plans: common text delivered by DG MOVE B1 (Section 5.4).
- TEN-T Revision: common text delivered by DG MOVE (Section 5.5).

Continuous feedback from stakeholders, and particularly Member States has been promoted, including:

- Analysis of updated KPI information
- Compliance maps based on project list
- The first draft version by the consultants was sent to the EC in January 2022 to collect and revert the Advisor feedback in the subsequent versions
- A draft final version sent to MS representatives by the EC in February 2022
- The final version to the Transport Ministries and/or Secretary of State for approval has been sent by the EC in June 2022

The last version is expected to be approved by Member States before the next Corridor Forum meeting on 27th September 2022 in Brussels.

6. Preparing, supporting and following up of the meetings of the Corridor Forum and its Working Groups (Task 5)

6.1 Outline

Task 5 is a horizontal task that runs in parallel with the technical tasks (1 to 4) referring to the activities necessary for the organisation and conduction of Corridor Forum (the consultative body as established in Regulation (EU) 1315/2013) and WG meetings.

Since 2014, the following working groups have been established for the ATL, both with dedicated and cross-corridors:

- WG regions
- WG ports & logistic terminals
- WG urban nodes
- WG cross-border
- Joint WG meetings with other corridors

6.2 Corridor Forum meetings

The Corridor Forum is the consultative body for the Corridor, chaired by the European Coordinator, involving Member States, regions, infrastructure managers, ports, airports, rail-road terminals, users and other stakeholders. The Corridor Forum is supported by several working groups, e.g. the working group on ports (and inland waterways); on urban nodes; on cross-border issues or on regions.

The stakeholders representing some of the corridor extensions have been invited to participate, as observers, in the Atlantic Forum and WG meetings since June 2019 and have been full Corridor Forum members since 1st January 2021.

During this phase II of corridor studies, five Forum meetings have been held in Brussels:

- **15th Forum Meeting, 24th November 2020**

Almost 80 participants attended the 15th Forum of the Atlantic Core Network Corridor, held in a virtual format. The meeting included an update from Prof. Carlo Secchi on the Corridor activities taken place since the last videoconference meeting in June. Prof. Secchi highlighted the special WG meeting between France and Spain about their cross-border rail connections, as well as country-specific videoconferences with the Ministries and infrastructure managers with the participation of INEA and DG REGIO.

Daniela Carvalho from TIS presented an update on the corridor studies, the current state-of-play and the next steps. Jacques Coutou, the then Managing Director of the Atlantic Rail Freight Corridor, presented the main updates on the Corridor.

Member State representatives then gave an overview on the transport infrastructure planning, as well as of projects on the Corridor and the impact of COVID-19 on the realisation of the Atlantic Corridor.

Isabelle Maës highlighted the main elements related to the Recovery & Resilience Facility and the related National Plans as well as the main progresses regarding the MFF and the CEF2 budget and the key aspects for the next CEF calls.

- **Informal Forum meeting, 3rd February 2021**

An informal online meeting was held in February to update stakeholders on recent news from the Commission, as well as on the status of national recovery plans by Member States.

- **16th Forum meeting, 23rd March 2021**

Daniela Carvalho from TIS presented the results of the corridor study, as well as a presentation on the impacts of the COVID-19 pandemic on modal shift/share. Claire Hamoniau, the new Managing Director of the Atlantic Rail Freight Corridor, presented the main updates on the RF Corridor. She presented the recent traffic KPIs, as well as other relevant aspects.

Isabelle Maës also presented an update on CEF-2 and other financial instruments, on behalf of Julie Buy, pointing out important priorities of the different EU funding instruments to support the Smart and Sustainable Mobility Strategy. Member States representatives then gave an overview on the TEN-T projects included in the national resilience and recovery plan under the RRF.

- **17th Forum meeting, 23rd November 2021**

Daniela Carvalho from TIS presented the results of the latest Project Implementation Report, as well as the next steps towards the 5th Work Plan.

Joël Hamann, the French representative, presented the French Climate and Resilience Law and the impacts on the Corridor and TEN-T. He also gave a presentation on France's national strategy for rail freight development.

Maria Corral from the Spanish MITMA gave a presentation on the country's Recovery and Resilience Plan and how the proposals can impact on the Corridor's activities. Luis Nuñez Vera from the Port of Algeciras then presented the updates on the Algeciras-Zaragoza/French border rolling motorway project. In addition, Javier de las Heras Molina Javier gave an update on the opening to traffic of the Spanish section of the road project between Vilar Formoso and Fuentes de Oñoro.

Hélder Cristóvão from the Portuguese IMT then provided an overview on how the Portuguese PNI is expected to address the remaining bottlenecks in the Corridor and the respective timings of such.

Claire Hamoniau, the Managing Director of the Atlantic Rail Freight Corridor, presented the activities currently being developed along the Corridor, as well as the 2022 timetable capacity. Isabelle Maës provided an overview of the latest activities on the Corridor, namely the Connecting Europe Express, for which Prof. Secchi, Isabelle and Daniela were present in the departure ceremony and the first sections of journey until France. Isabelle also presented some preliminary information on the revision of the TEN-T Regulation.

- **18th Forum meeting, 27th September 2022**

The 18th Corridor Forum meeting will take place in Brussels on the 27th September 2022. The indicative agenda includes the presentation on the results of the latest Corridor Study, as well as of the 5th Work Plan, updates on the ATL RFC and any other news from the EC and Member States.

6.3 Working group meetings

During Phase II, five Working Group meetings have been organised:

- Joint workshop organised MoS, ATL and NSM, April 2021
- Special Working Group on the cross-border rail connections France-Spain, May 2021
- Connecting Europe Express (conference and departure ceremony in Lisboa and journey until Bordeaux), September 2021
- Connecting Europe Days 2022 in Lyon (specific ATL meeting and bilateral meetings with stakeholders), June 2022
- Joint Working Group on ports MoS, ATL and NSM in Huelva, to be held in November 2022.

Most meetings were carried out online due to the various restrictions in place due to COVID-19. From September 2021, the number of face-to-face meetings increased. The departure ceremony of the Connecting Europe Express and the journey in itself was the first opportunity since the outbreak of the pandemic to meet stakeholders face-to-face. One year later, the Connecting Europe Days in Lyon also gave Corridor Forum members and other stakeholders the opportunity to reconnect in the discussion of important investment projects and relevant issues for the Atlantic Corridor. Still during phase 2, a joint working group is expected to be held in the port of Huelva.

For each WG, the consultants, among the other activities, have supported the Commission in defining the agenda and select the speakers, provided tailor-made information on the speakers and a summary of their interventions, collected and organised in advance the contributions to be presented and took care of the minutes of the meetings.

7. Summary

The second 24 months-period of the 2nd phase of the Studies on the TEN-T CNC and the support of the Coordinators have again enabled the Consultants' team to complete the five tasks, who provided the Commission with the relevant information concerning the technical and operational enhancements at the corridor and nodes levels, collected the most recent information on the projects completed and to be completed and the evolution of their deployment in terms of maturity and finance.

All this information, together with those emerging in the meetings held in the framework of the Corridor life (Fora and Working Groups), constitute the basis for the systematisation of the relevant facts, figures and recommendations included in the 5th Work Plan of the Coordinator of the Atlantic Corridor.

The impact of the COVID-19 had an unprecedented impact on transport and on society. Nonetheless, the Corridor's activities remained unstopped, with various meetings being held online. Not many of the projects in the Corridor suffered considerable delays due to the pandemic. In addition, the RRF and the national Recovery Plans ensure the necessary boost to enable the full recovery from the pandemic.

This is now a crucial moment towards completing the Atlantic Core Network Corridor until 2030, being a milestone that marks the half-period since the works started in 2014. The Corridor extensions in 2021 strengthened the Corridor's maritime dimension, while also reinforcing important links to Ireland and the Canary Islands. Nonetheless, important works still need to be finalised (namely the Lisboa-Madrid high-speed rail line, as well as the Y Basque rail lines and the GPSO connecting to Spain) to ensure that the Corridor is fully compliant with the TEN-T parameters and its deadlines for completion.

The proposal for a new TEN-T Regulation will likely see the emergence of the Atlantic European Transport Corridor with a relatively similar alignment as today, while being reinforced by the integration of the Atlantic Rail Freight Corridor. The extended core network will also bring the opportunity to include important cross-border sections in the Corridor, namely the Porto-Vigo rail section, the core road network to the port of Brest, as well as the extended rail network to the comprehensive port of La Rochelle and in the addition of the Tagus River as part of the Corridor's IWW network.

The Consultants' team has agreed to prolong the activities linked to this phase until September 2022, carrying out the Corridor Forum Meeting in Brussels. In addition, the Consultants' team is also expected to prolong their contracts to support the European Coordinators until December 2023, under a new phase of narrower Corridor Studies.