



Study on the Atlantic TEN-T Core Network Corridor

3rd Phase

Project Implementation Report 1/2023



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

Lot 7, Atlantic Corridor

Project Implementation Report 1/2023

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Authors:

TIS.pt [PT], INECO [ES], EGIS [FR], Panteia [NL], M-FIVE [DE], BG [FR]

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Table of contents

Table of contents.....	3
Table of figures	3
Abbreviations.....	4
1 Introduction & Scope	5
2 Monitoring of Project Maturity.....	6
2.1 Completion Time Cluster	6
2.2 Detailed project maturity parameters.....	12
3 Monitoring of Project Finance.....	16
3.1 Completion Time Cluster	16
3.2 Other Project Finance Parameters.....	18
4 Monitoring of Difficulties	22
5 Targeted analysis for necessary investments to complete the rail high-speed network.....	25

Table of figures

Figure 2-1: Number of Projects by Completion Time Cluster (Status of 04/2023) ..	6
Figure 2-2: Evolution of Maturity criteria "expected completion time" since the first Implementation Report	8
Figure 2-3: Evolution of Maturity criteria "expected completion time" since the first Implementation Report (No. of projects)	11
Figure 2-4: Evolution of Maturity criteria "expected completion time" since the first Implementation Report (Share of projects)	11
Figure 2-5: Status for Maturity Parameters of CNC Atlantic (No. of Projects)	12
Figure 2-6: Status and evolution of Maturity Parameters (Share of Projects with Highest Maturity by Parameter).....	15
Figure 3-1: Total Cost (in Million €) by Completion Time Cluster	16
Figure 3-2: Evolution of Total Cost by completion time cluster since the first Implementation Report	16
Figure 3-3: Evolution of Total Cost (in Million €) by completion time cluster since the first Implementation Report	17
Figure 3-4: Evolution of Share of Total Cost by completion time cluster since the first Implementation Report	18
Figure 3-5: Status for Project Financing Source in Million €	18
Figure 3-6: Evolution of Project Financing Source in Million €	19
Figure 3-7: Evolution of Project Financing Source (Share of Source) and value of completed projects in Million €	19
Figure 3-8: Status of approved finance by source of CNC Atlantic in Million €	20
Figure 3-9: Status and Evolution of Approved Finance by Source in %.....	21

Abbreviations

ATL	Atlantic Core Network Corridor
CBA	Cost-Benefit analysis
CEF	Connecting Europe Facility
CF	Corridor Forum
CNC	Core Network Corridor according to Regulation (EU) 1316/2013
DE	Germany
DG MOVE	European Commission – Directorate General for Mobility and Transport
EC	European Commission
EIA	Environmental Impact Assessment
ERTMS	European Rail Traffic Management System
ES	Spain
EU	European Union
FR	France
GDP	Gross Domestic Product
GPSO	Grand Project ferroviaire du Sud-Ouest
IFI	International Financial Institutions
INEA	Innovation and Networks Executive Agency
IWW	Inland waterway
HS	High-speed line
km	kilometre
KPI	Key Performance Indicator
m	metre
mln	Million
MMTMS	Multimodal Transport Market Study
MoS	Motorway(s) of the Sea
MS	Member States of the European Union
MS	Member States of the European Union
n.a.	not available / not applicable
p.a.	per year / annual
PL	Project List
PT	Portugal
RFC	Rail Freight Corridor
RRT	Rail-Road Terminal
SEA	Strategic Environmental Assessment
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
UIC	International
WG	Working group

1 Introduction & Scope

The present report is the ninth Project Implementation Report – 1st Project Implementation Report of 2023 - issued in the framework of Task 3 activities of Tender Specifications and Contract, for the III phase of Studies on the TEN-T Core Network Corridors, and the last one in the framework of the current TEN-T Regulation. It closes the cycle for the period 2014-2023.

Task 3 relies on the requirement that along with a biannual update on the entire project list and the Work Plan of the European Coordinators, there should be a more frequent status analysis of the projects, which will allow the Commission and the Coordinator to counteract in case of inconsistencies and delays. Therefore, the implementing stages of projects and their financing shall be monitored twice a year throughout the study phases III (June 2018 – May 2022). Current consultancy contracts and mandates of the TEN-T Coordinators were extended until December 2023 to cover the transition period upon the adoption of the new TEN-T Regulation¹.

The present report is based on the methodology used to monitor the implementation of corridor projects within the framework of Task 3.1, 3.2 and 3.3 reported in the first Project Implementation Report (1/2018). It presents the results of the analysis on the monitoring, based on the 2021 ATL Project List formally updated and transmitted to the Commission.

The report is one of the formal deliverables due in May 2023, reflecting the latest stakeholders' updates for maturity in March 2023. This is the fourth PIR reflecting the corridor extensions as defined in CEF-2 Regulation, with the inclusion of new sections in Spain, France, Portugal and Ireland in the ATL and after the initial adjustments to the projects thereof. It is prepared on the basis of the agreed methodology (chapter 1.1 of the Project Implementation report 1/18) and includes the presentation of the results obtained from the monitoring process. In order to present comparable results across the nine Core Network Corridors, the analysis presented in this report was agreed upon by all nine Core Network Corridors.

This report is accompanied by the updated Atlantic PL 2023.

¹ Commission proposal for a Regulation (EU) on Union guidelines for the development of the trans-European transport network (TEN-T) amending Regulation (EU) 2021/1153 and regulation (EU) 913/2010 and repealing Regulation (EU) 1315/2013, COM (2021) 812 final

2 Monitoring of Project Maturity

The following chapter presents the results from the monitoring of the project maturity - obtained following the application of the methodology presented in the first Project Implementation Report - where two parameters are relevant:

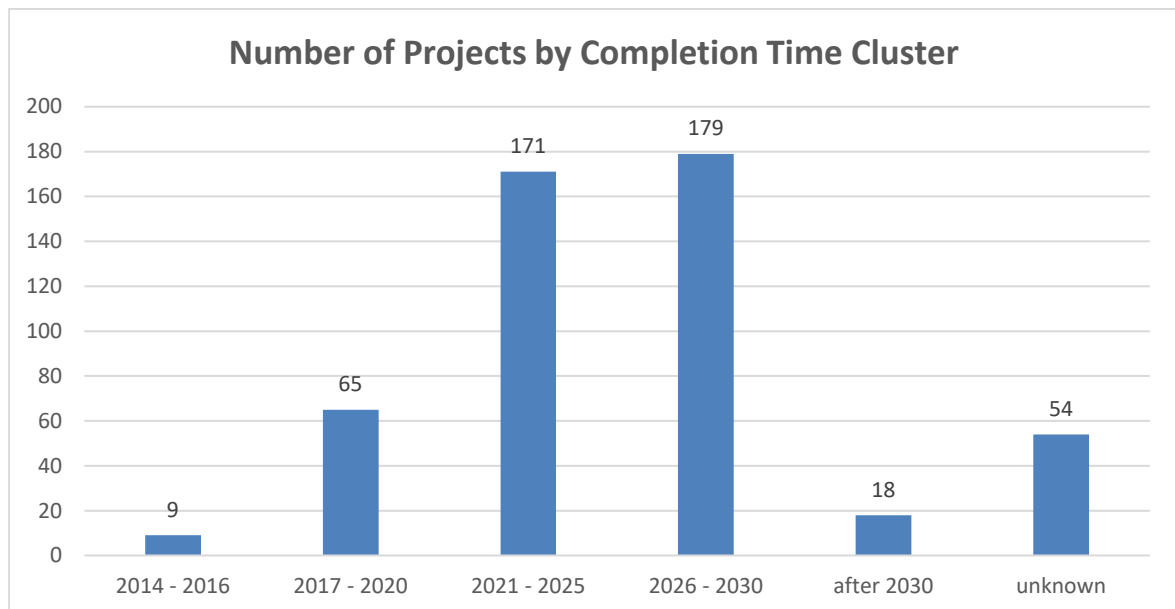
- The number of projects by completion time cluster and
- Other project maturity parameters.

The results showed below are based on the 2023 ATL Project List, updated in March 2023 for maturity criteria, reflecting projects completed until December 2022. The chapter contains the last data available and a comparison with historic data.

2.1 Completion Time Cluster

The most important “maturity” parameter is the project completion. The following figure presents the number of projects by envisaged completion time cluster.

Figure 2-1: Number of Projects by Completion Time Cluster (Status of 04/2023)



Source: *Project List 2023 of ATL CNC*

By the reporting date, 496 projects are included in the Atlantic Project list, 129 had already been completed since the adoption of the TEN-T Guidelines - namely from 2013 up to December 2022, most of those referring to studies (73) or studies and works (270). Other 116 will be completed by 2025 and 179 by 2030 - the target date of the Regulation. However, 18 projects are expected to be completed only after that target year and for 54 projects the completion end date is “not known”.

The high-speed network Lisboa-Évora is among the projects listed for after 2030, including the third crossing of the Tejo river in Lisboa, part of the Lisboa-Madrid high-speed line. Another relevant project also to be completed after 2030 is the GPSO branch connecting Bordeaux to the Spanish border (section from Dax to the border), which will not be included in the MS plans before 2037.

As already noted in the previous PIR, with the completion of the Évora-Mérida project by 2023 (most likely 1st quarter 2024), a significant boost in the connection Lisboa-Madrid is expected. Although this is not in full compliance with the Regulation (which foresees a high-speed line), it enables the start of a new direct (and adequate speed) operation of services between the two capital cities, significantly reducing the total travel time from the current 12 hours to below 6 hours. Nevertheless, such duration is not yet competitive to promote the modal shift from air to rail, avoiding the nearly forty flights a day between Lisboa and Madrid.

Again, although not reflected in the PL by the Member State, it is worth highlighting some progress in relation to GPSO, with a financing decision adopted in February 2022 by the State and the local authorities (€14 Bn., of which 40% from local authorities, 40% from State and expected 20% from EU) and the establishment of a dedicated company for managing the project (SPGSO). Although the decision for completion towards the Spanish border is still pending, new commitments for Bordeaux – Toulouse (2032) / Dax (2037) have been made.

In the previous PIR 1/2022, referring to April 2022 PL status, 492 projects were reported. The current PL 2023 comprises 496 projects, which includes the inclusion in the PL of two completed (and flagship projects in the ATL) notably Tours-Bordeaux and LGV Est that were wrongly deactivated upon its completion. Other relevant changes refer to the deactivation (due to duplication) of projects and the inclusion of new projects (6)

The following projects have been deactivated:

Project ID	Project name	Reasoning for deactivation
7020	Link HS line Madrid – Extremadura to Madrid freight line	Included in project 7018
7128	Atlantic rail motorway	Same as 7827
7551	Strengthening of the Porto Metro network	Deactivated because it is included in 7576 and 7577
7552	Strengthening of the Lisboa Metro network	Deactivated because it is included in 7578 and 7579
7831	Madrid - Algeciras conventional rail line: Almoraima Bypass	Included in old 3853 - Almoraima Bypass only Deactivated in March 2023 because it is included in project 3850
8898	Extension of the usable length of railways on the multimodal terminal at the port of Metz	Same than 8898 in ATL List

New projects included in the PL are:

7574	DECARBONISATION OF THE PORT OF SINES
7575	Studies for the development of Port of Sines Dual Project
7581	NEXUS digitalisation agenda
7771	Promoting an effective implementation of Regulation (EU) 913/2010 by Rail Freight Corridor Atlantic

7772	Detailed and final studies for the upgrade of railways electrification system on the Atlantic RFC on the Bordeaux - Lamothe section
7806	Capacity expansion in Ludwigshafen node (Ludwigshafen main station) according to the rail freight transport forecast
7807	Capacity expansion in Ludwigshafen node (Ludwigshafen-Mundenheim) according to the rail freight transport forecast

Figure 2-2: Evolution of Maturity criteria “expected completion time” since the first Implementation Report

Report N°	1/2018	1/2019	2/2019	1/2020	2/2020	1/2021	2/2021	1/2022	1/2023
Reporting Date	09/18	05/19	10/19	04/20	10/20	05/21	10/21	04/22	04/23
List Status	11/17	12/18	06/19	12/19	06/20	12/20	06/21	12/21	12/22
2014 - 2016	11	11	11	11	11	11	11	11	9*
2017 - 2020	132	109	100	95	94	78	75	66	65
2021 - 2025	46	102	103	107	107	197	194	178	171
2026 - 2030	47	82	81	83	83	140	140	163	179
after 2030	6	9	8	10	10	15	16	19	18
unknown	51	63	63	56	56	60	62	55	54
Total	293	376	366	362	361	497	498	492	496
Thereof Completed	26	36	38	47	51	58	91	85	129

Source: Project List of Atlantic CNC (2017-2023)

As the update of the Project List every two years will lead to a change in the number of projects, two graphical outputs are needed: the absolute figures showing the quantity of projects and the standardised figure (showing the relative share cumulating to 100%).

The graph presents the number of projects per completion time cluster and the number of completed projects. Since the last report in 2022, it is especially remarkable the increase in the number of completed projects, from 85 to 129. However, this figure needs to be interpreted carefully given that in most cases it corresponds to a more attentive completion of maturity criteria by the project promoters, completion of studies rather than the actual completion of works. Nevertheless, it is worth highlighting the completion and entering in operation for the line Venta de Baños (Palencia) – Burgos HSL creating the Madrid – Burgos high-speed connection on the North line has entered in operation (27th July 2022). The project is part of the Venta de Baños – Burgos – Vitoria / French Border high-speed line project co-financed by the European Union through the 2014-2020 European Regional Development Fund (ERDF) under the, through Pluri-Regional Operational Programme and by the Connecting Europe Facility for the ERTMS installation on the Valladolid – Burgos section.

Despite the large efforts in the project list update with stakeholders, the number of projects for which the completion time is not known is still high (54 projects),

corresponding to about 10% of the projects. However, it is important to mention that the percentage of unknown projects is decreasing within each PL update (up to 2020, on average, the percentage of unknown completion date was 17%).

The following main changes have occurred since the last PIR:

Projects with end date anticipated:

		Project end date (NEW)	Project end date (OLD)
7202	Increase the efficiency of current Alcantara container terminal	12/2028	12/2038
7230	Widening and modernisation of the northern underpass at Toulouse Matabiau railway station	12/2023	07/2025
7252	Conclusion of Lisboa-Madrid connection	12/2040	12/2050
7338	Linha do Sul/Melhoria da Acessibilidade ao Porto de Setúbal (Porto Setúbal+Praias do Sado)	12/2025	12/2030
7576	Strengthening of the Porto Metro network - Line Casa da Musica - Santo Ovidio	06/2026	12/2030
7577	Strengthening of the Porto Metro network - BRT Boavista	06/2024	12/2030
7578	Strengthening of the Lisboa Metro network - Expansion of the Red line until Alcantara	06/2026	12/2030
7579	Strengthening of the Lisboa Metro network - LRT Odivelas- Loures	06/2026	12/2030

Projects with end date changed to "unknown":

		Project end date (NEW)	Project end date (OLD)
7232	GPSO - New high-speed line Toulouse-Agen	unknown	01/2032
7733	GPSO - New high-speed line Bordeaux-Agen	unknown	01/2037
7734	Regeneration of the Centre Europe Atlantique railway (VFCEA)	unknown	01/2022

Projects with end date changed from "unknown" to a fix date":

		Project end date (NEW)	Project end date (OLD)
7115	Redesigning of the tracks plan at Brétigny station (RER C)	12/2032	unknown
7117	Tangentielle Légère Nord (capacity upgrade on the rail ring of Paris) - Phase1	07/2027	unknown
7118	Tangentielle Légère Nord (capacity upgrade on the rail ring of Paris) - Phase2	12/2032	unknown
7771	Promoting an effective implementation of Regulation (EU) 913/2010 by Rail Freight Corridor Atlantic	12/2024	unknown
7772	Detailed and final studies for the upgrade of railways electrification system on the Atlantic RFC on the Bordeaux - Lamothe section	03/2025	unknown

Projects with end date delayed less than 1 year (in the same period):

		Project end date (NEW)	Project end date (OLD)
7069	Badajoz RRT	03/2023	09/2022
7224	East Breakwater Extension Project (Phase 3)	12/2023	06/2023
7234	Portuguese Ports Information System (JUP III / JUL)	12/2023	06/2023
7280	CIRVE_PT	12/2022	06/2022
7564	Port Security Center	06/2024	12/2023
7570	Reinforcement of the North Pier of Dock nº. 1 of the Port of Leixões	05/2026	12/2025

Projects with end date delayed 1 year or more (within the same period):_

		Project end date (NEW)	Project end date (OLD)
7001	Salamanca – Fuentes de Oñoro. Electrification, signalling system	12/2025	12/2021
7195	Embankments reconversion of the South Container Terminal of the Port of Leixões	06/2023	04/2022
7205	Inland Navigation in the Tagus Estuary up to Castanheira do Ribatejo	06/2025	09/2024
7241	Rehabilitation and upgrade of Corridor Section Aveiro - Vilar Formoso	12/2024	12/2023
7515	Breakwater extension and Improvement of the Maritime Accessibilities to the Port of Leixões	12/2024	10/2023
7651	Developing rolling motorways in the Port of Huelva	12/2025	12/2024
7669	León-Pola de Lena rail line	12/2024	12/2023
7827	Atlantic Rail Motorway: Modal shift of all types of semi-trailers on the Atlantic corridor	03/2024	12/2020

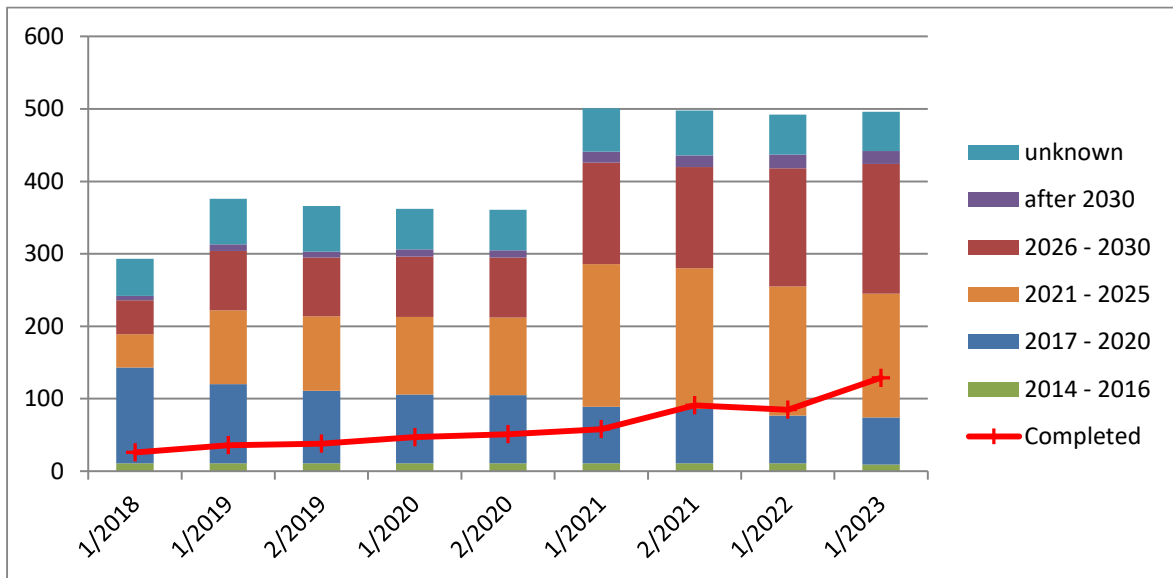
Projects with end date delayed 1 year or more (postponing the period to 2026-2030):

		Project end date (NEW)	Project end date (OLD)
7028	Developing and upgrading port maritime infrastructure in Bilbao Port	12/2026	12/2025
7200	Upgrade of VTS and Main Gate System and Inspection Centre Facilities	12/2027	12/2025
7294	Universal Accessibility in Passenger Stations	12/2030	09/2018
7518	Rehabilitation of the North Breakwater and improvement of maritime accessibilities and operational conditions of the Pole of the Port of Leixões in Viana do Castelo	12/2027	12/2025
7528	NEW MULTIPURPOSE TERMINAL	12/2028	12/2022
7533	Santa Apolónia Container Terminal	06/2026	06/2024
7566	Shore-to-Ship Power Supply in the Eastern Terminals and the Lisbon Cruise Terminal	12/2026	12/2025
7623	Jundiz RRT terminal at Vitoria	12/2030	12/2022
7631	Atlantic Corridor.HS line Sines/Lisboa-Madrid. Madrid urban node. Study of the Railway Complex of Atocha Station(Phase 3)	12/2030	07/2025
7767	Rail motorway Cherbourg-Mouguerre	12/2026	06/2025
7825	SUPPLY IN OPERATING CONDITION OF A SYSTEM GBAS CATEGORY III. ADOLFO SUÁREZ MADRID-BARAJAS AIRPORT	12/2030	09/2025

Projects with end date delayed 1 year or more (postponing the period to beyond 2030)

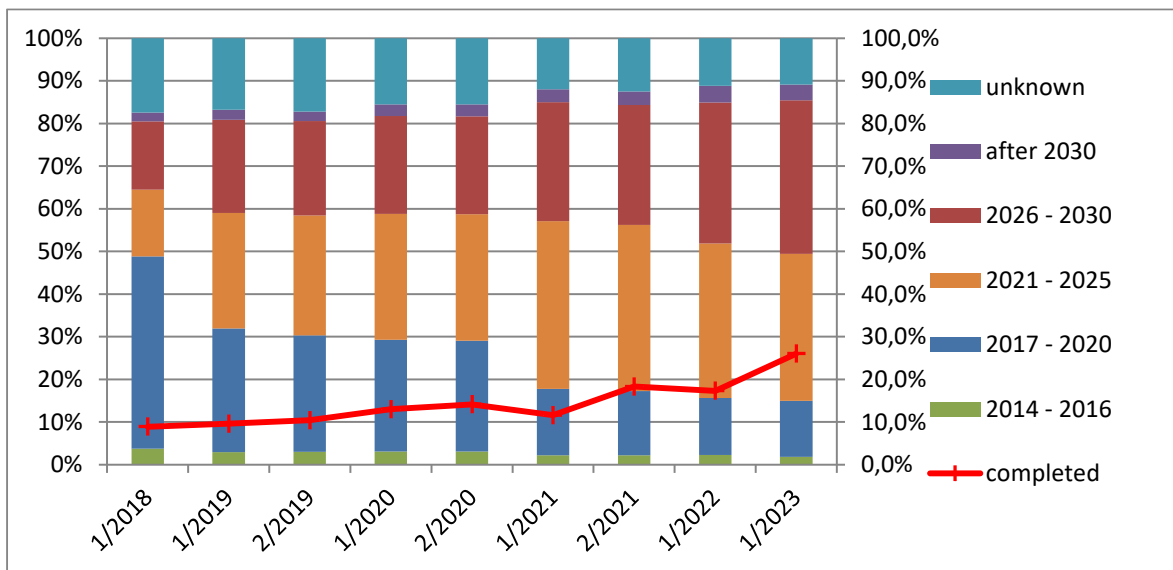
		Project end date (NEW)	Project end date (OLD)
7231	GPSO - Toulouse rail node and northern Toulouse (AFNT)	12/2032	01/2022

Figure 2-3: Evolution of Maturity criteria "expected completion time" since the first Implementation Report (No. of projects)



Source: Project Lists of Atlantic CNC 2017-2023

Figure 2-4: Evolution of Maturity criteria "expected completion time" since the first Implementation Report (Share of projects)



Source: Project Lists of Atlantic CNC 2017-2023

2.2 Detailed project maturity parameters

The analysis on the seven maturity parameters is carried out considering the following aspects for each reporting time:

- A. the total number of projects is provided (as a reference for orientation);
- B. the number of ongoing or planned projects is provided (clear marking of MM/YYYY which distinguished "completed" projects);
- C. for each parameter the number of projects for which that parameter is „not necessary" or has not been filled is counted;
- D. and consequently the number of "relevant" ongoing or planned projects can be deduced ($B - C = D$);
- E. for the relevant projects only the „highest" value class, e.g. "completed", "concluded", "approved" is counted;
- F. and finally, the Ratio $E / D * 100$ can be calculated to demonstrate the maturity status per parameter.

Figure 2-5: Status for Maturity Parameters of CNC Atlantic (No. of Projects)

Report N°		1/2018	1/2019	2/2019	1/2020	2/2020	1/2021	2/2021	1/2022	1/2023
Reporting Date		09/18	05/19	10/19	04/20	10/20	05/21	10/21	04/22	05/23
Parameter	Highest Value #	11/17	12/18	06/19	12/19	06/20	12/20	06/21	12/21	12/22
Total Project Of which ...		293	376	366	362	361	497	498	492	496
... completed		26	36	38	47	51	58	91	85	129
... ongoing or planned		267	340	328	315	310	439	407	407	367
Planning Stage	Relevant Concluded	224 69	213 110	226 149	230 147	231 143	401 179	385 185	339 187	318 201
Feasibility Stage	Relevant Concluded	139 48	203 82	186 82	195 86	195 82	386 118	368 122	298 130	283 146
Detailed Design, ...	Relevant Concluded	135 34	190 53	188 59	182 62	181 58	371 77	354 78	261 85	254 93
Land Acquisition	Relevant Completed	70 47	100 51	77 39	110 39	82 36	282 45	186 45	183 46	177 51
EIA	Relevant Approved	89 34	192 44	171 39	198 40	178 36	347 51	309 50	298 51	293 55
CBA	Relevant Performed	95 64	137 68	89 62	127 65	96 61	299 94	266 96	256 96	256 108
Final Approval	Relevant Approved	79 34	204 54	185 60	212 62	195 67	361 115	353 120	344 120	343 143

Source: Project Lists of Atlantic CNC 2017-2023

The list presents the number of projects relevant for a certain parameter and the number of projects for which the “highest” maturity category is reached by the reporting time.

From the 496 projects in PIR 1/2023, 129 had already been completed until December 2022 (cut-off date) and 367 are ongoing or planned. It should be noted that some variations in the maturity criteria are affected not only by the deactivation of projects but also for a more accurate (although still far from being perfect) updates by stakeholders (i.e. from empty fields to concluded).

For 201 projects, the “planning stage” is concluded, 146 have passed the “feasibility” stage (16 more in comparison to the previous PIR) and 93 the “detailed design” stage (8 more than in past PIR).

Additionally, by December 2022, 108 projects had performed the corresponding CBA and 143 projects are marked as with Final Approval by relevant governmental & administrative authorities (23 more compared to the PIR 1/2022). Regarding the Environmental Impact Assessment, a total of 55 projects have concluded it and 56 have the respective CBA in progress.

It also shall be noticed that most of the end date changes correspond to postponements from the initial end date provided by stakeholders, as seen above.

Moreover, as already noted in previous PIR’s, in a large number of projects differences found for maturity criteria are more related to accurate results introduced by stakeholders rather than an effective progress. Nevertheless, we should point some progresses highlighted for the following maturity criteria:

Environmental Impact Assessment (EIA) / Detailed Design / Detailed Implementation Plan / Administrative Permits and Licences concluded:

- 7117: Tangentielle Légère Nord (capacity upgrade on the rail ring of Paris) - Phase1
- 7118: Tangentielle Légère Nord (capacity upgrade on the rail ring of Paris) - Phase2
- 7202: Increase the efficiency of current Alcantara container terminal
- 7338: Linha do Sul/Melhoria da Acessibilidade ao Porto de Setúbal (Porto Setúbal+Praias do Sado)
- 7578: Strengthening of the Lisboa Metro network - Expansion of the Red line until Alcântara
- 7659: Implementing new technologies and innovation in Gijón Port
- 7664: Castejón-Pamplona rail line (High-speed)
- 7668: Venta de Baños-León rail line (High-speed)
- 7669: León-Pola de Lena rail line
- 7673: Vigo-Santiago-A Coruña rail line

EIA approved:

- 7231: GPSO - Toulouse rail node and northern Toulouse (AFNT)
- 7268: Venta de Baños-León rail line (High-speed)
- 7578. Strengthening of the Lisboa Metro network - Expansion of the Red line until Alcântara
- 7740: Studies for implementation of the Toulouse Aerospace Express project (3rd metro line) (France)
- 7741: Studies/Works for implementation of the Toulouse Aerospace Express project (3rd metro line) (France)

CBA performed:

- 7117: Tangentielle Légère Nord (capacity upgrade on the rail ring of Paris) - Phase 1
- 7231: GPSO - Toulouse rail node and northern Toulouse (AFNT)
- 7232: GPSO - New high-speed line Toulouse-Agen
- 7338: Linha do Sul/Melhoria da Acessibilidade ao Porto de Setúbal (Porto Setúbal+Praias do Sado)
- 7566: Shore-to-Ship Power Supply in the Eastern Terminals and the Lisbon Cruise Terminal
- 7574: Decarbonisation of the Port of Sines
- 7576: Strengthening of the Porto Metro network - Line Casa da Música - Santo Ovidio
- 7578: Strengthening of the Lisboa Metro network - Expansion of the Red line until Alcantara
- 7580: Rail connection Aveiro-Fuente de Oñoro - Phase 2: Mangualde-Vilar Formoso
- 7664: Castejón-Pamplona rail line (High-speed)
- 7668: Venta de Baños-León rail line (High-speed)
- 7669: León-Pola de Lena rail line
- 7673: Vigo-Santiago-A Coruña rail line
- 7733: GPSO - New high-speed line Bordeaux-Agen

CBA in progress:

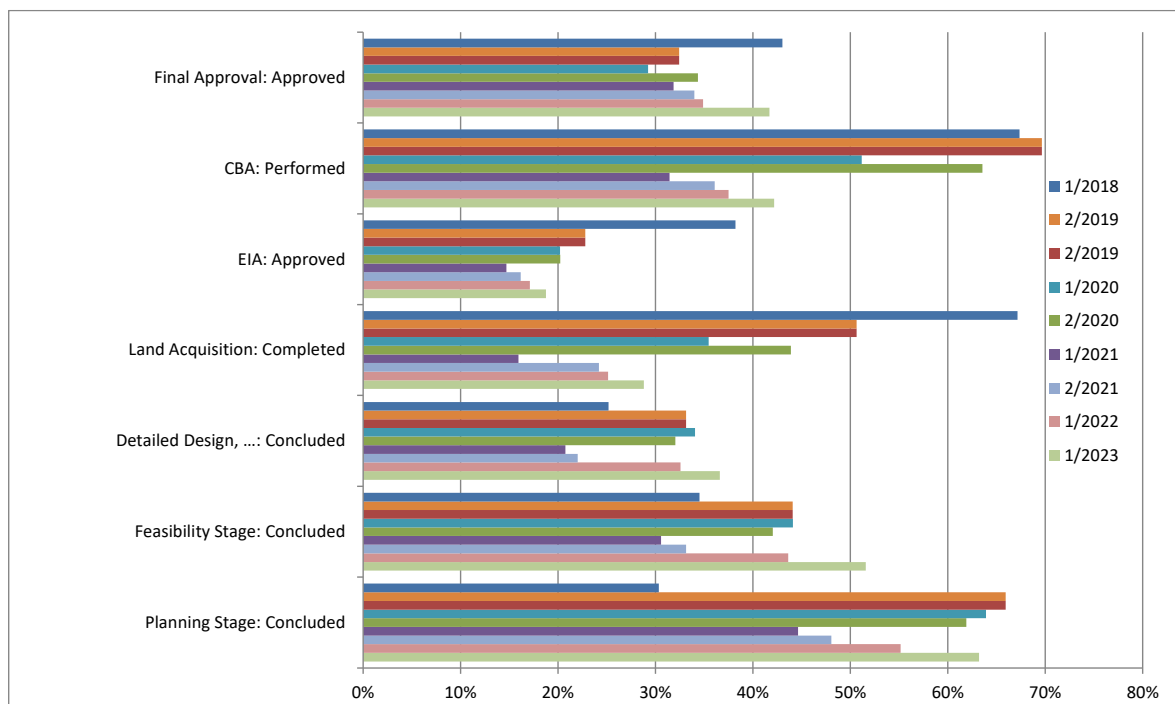
- 7118: Tangentielle Légère Nord (capacity upgrade on the rail ring of Paris) - Phase2
- 7648: Development of infrastructure and accesses of Port of Santa Cruz de Tenerife: shore quay in the port of Granadilla
- 7658: Port of Gijón Energy Transition
- 7662: Zaragoza-Castejón rail line (High-speed)
- 7666: Pamplona-New rail network Basque Country (High-speed)

Final approval by governmental and administrative authorities:

- 3864: Project of realignment of road traffic in the accesses to Madrid
- 7117: Tangentielle Légère Nord (capacity upgrade on the rail ring of Paris) - Phase 1
- 7231: GPSO - Toulouse rail node and northern Toulouse (AFNT)
- 7232: GPSO - New high-speed line Toulouse-Agen
- 7338: Linha do Sul/Melhoria da Acessibilidade ao Porto de Setúbal (Porto Setúbal+Praias do Sado)
- 7570: Reinforcement of the North Pier of Dock nº. 1 of the Port of Leixões
- 7573: ZILS Rehabilitation Infrastructure
- 7648: Development of infrastructure and accesses of Port of Santa Cruz de Tenerife: shore quay in the port of Granadilla

- 7649: Duplication of the N-350 road. Access to the Port of Algeciras Bay
- 7654: Implementation of the Huelva-Canarias line according to the new extension of the Atlantic Corridor.
- 7664: Castejón-Pamplona rail line (High-speed)
- 7668: Venta de Baños-León rail line (High-speed)
- 7669: León-Pola de Lena rail line
- 7673: Vigo-Santiago-A Coruña rail line
- 7733: GPSO - New high-speed line Bordeaux-Agen
- 7740: Studies for implementation of the Toulouse Aerospace Express project (3rd metro line) - studies
- 7741: Studies/Works for implementation of the Toulouse Aerospace Express project (3rd metro line) – studies + works

Figure 2-6: Status and evolution of Maturity Parameters (Share of Projects with Highest Maturity by Parameter)



Source: Project Lists of Atlantic CNC 2017-2023

3 Monitoring of Project Finance

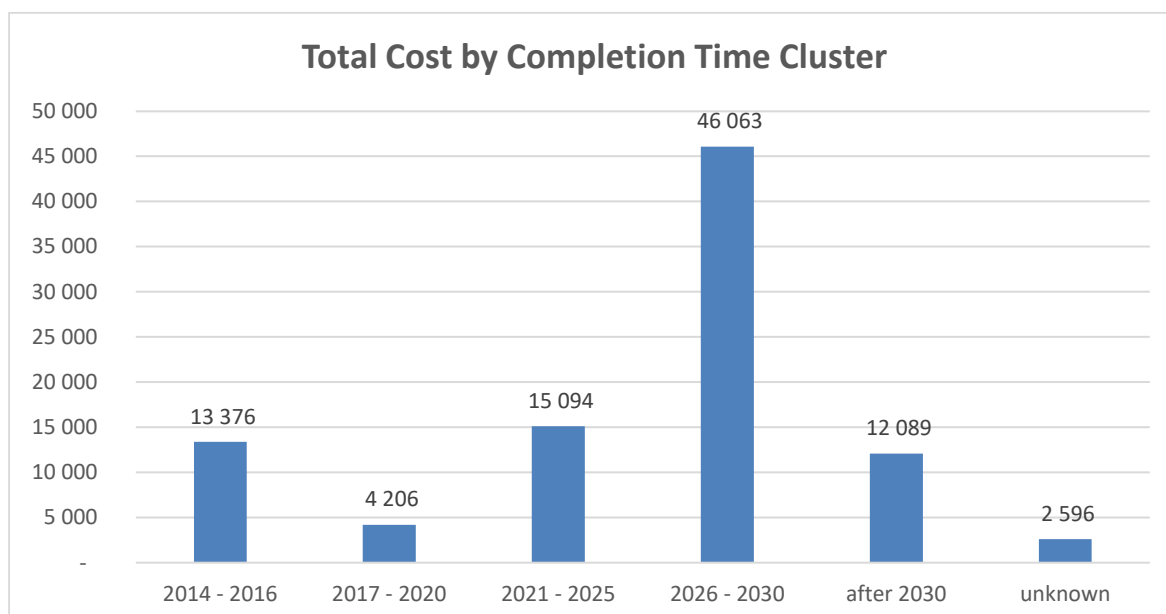
The following chapter presents the results of the monitoring of the project financial status where two groups of parameters are relevant:

- The total costs by completion time cluster and
- Other project finance parameters

3.1 Completion Time Cluster

The most important “financing” parameter is the total project cost, where the following figure visualises the total costs by envisaged completion time cluster.

Figure 3-1: Total Cost (in Million €) by Completion Time Cluster



Source: Project Lists of Atlantic CNC 2017-2023

Figure 3-2: Evolution of Total Cost by completion time cluster since the first Implementation Report

Report N°	1/2018	1/2019	2/2019	1/2020	2/2020	1/2021	2/2021	1/2022	1/2023
Reporting Date	09/18	05/19	10/19	04/20	10/20	05/21	10/21	04/22	05/23
List Status	11/17	12/18	06/19	12/19	06/20	12/20	06/21	12/21	12/22
2014 - 2016	36	78	78	78	78	3 566 ²	3 566	3 566	13 376 ³
2017 - 2020	15 494	5 538	4 746	3 244	3 244	3 357	3 329	3 223	4206
2021 - 2025	6 071	9 956	10 730	11 833	11 839	15 797	13 452	12 775	15094

² This increase of €3,488M corresponds to the addition of projects 7668 (Venta de Baños-León rail line (High-speed)) and 7673 (Vigo-Santiago-A Coruña rail line) as part of the Corridor Extensions, having both been completed in 12/2015.

³ Difference resulting from the inclusion of the two flagship projects concluded – Tours-Bordeaux (€7800 M) and LGV Est (€2010 M)

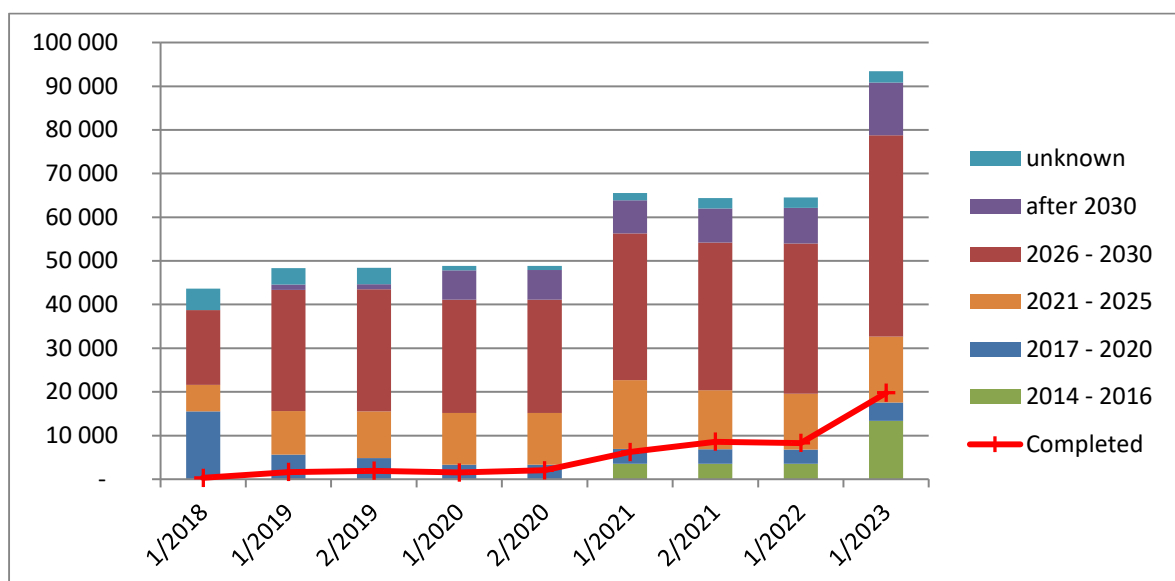
Report N°	1/2018	1/2019	2/2019	1/2020	2/2020	1/2021	2/2021	1/2022	1/2023
2026 - 2030	17 097	27 781	27 979	25 946	25 946	33 554	33 830	34 423	46063
after 2030	N/A	1,232	1 132	6 771	6 771	7 638	7 800	8 171	12089
unknown	4 968	3,772	3 716	960	960	1 632	2 449	2 340	2596
Total	43 665	48 358	48 382	48 832	48 838	65 543	64 425	64 498	93424
Thereof Completed	284	1 655	1 940	1 520	2 043	6 223	8 582	8 304	19972

Source: Project Lists of Atlantic CNC 2017-2023

The cost figures highlight that despite the relevant increase of budget figures referring to completed projects, the highest share of the costs is concentrated in the period 2026 to 2030, with an increase of €593M. Compared to the last PIR, the costs of projects with unknown end dates represent a decrease of €108M, while the costs for the period after 2030 increased by €370M.

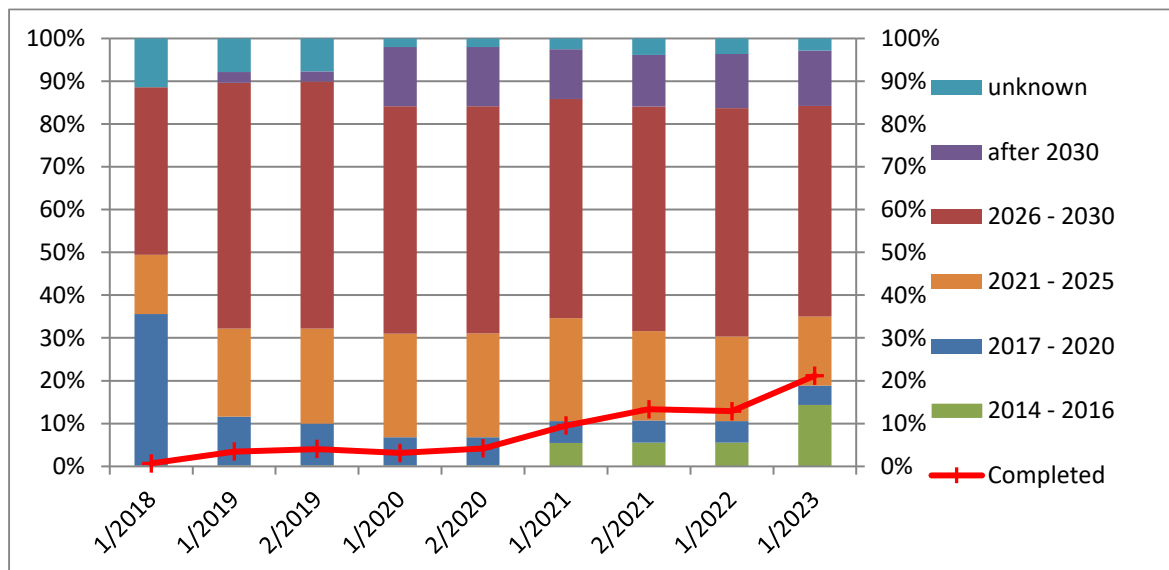
Since the last PIR, an update exercise with stakeholders in relation to maturity and financing aspects has been performed. This allowed to obtain new data or data updates for costs, which at the end are reflected in the changes that are showed in the table above.

Figure 3-3: Evolution of Total Cost (in Million €) by completion time cluster since the first Implementation Report



Source: Project Lists of Atlantic CNC 2017-2023

Figure 3-4: Evolution of Share of Total Cost by completion time cluster since the first Implementation Report



Source: Project Lists of Atlantic CNC 2017-2023

3.2 Other Project Finance Parameters

The share of “open” financing source is still of approximately 55%, which highlights the potential lack of maturity for many projects in the Atlantic Corridor.

For the other 46% of projects for which financing sources are identified, State, Private and EU sources remain the main financing sources. Investment by regional and local authorities increased compared with the last PIR, though still far from the values planned at the end of 2017. Although this is also related with the different governmental organisation setup along the five corridor MS (i.e. powers and financial resources in regions), role for regions in financing remains a relevant topic for future discussion.

It should be noted that the significant increase in the figures for “IFI” and “Private” in this PIR reflect the “reactivation” of the two flagship projects completed in earlier periods (i.e. Tours-Bordeaux and LGV-Est). However, it is worth referring that although not yet reflected in the current PIR, the planned financial setup for the GPSO reflects a mix of financing sources (State, Regions, Private, EU), while the Lisboa-Porto high-speed line will probably result from a public private partnership. In addition, most investments in ports, notably in the energy side are privately driven, particularly on energy-related projects.

State financing remains with similar shares as in past PIR (when not considering the reactivated projects), representing the major financing source for the CNC projects.

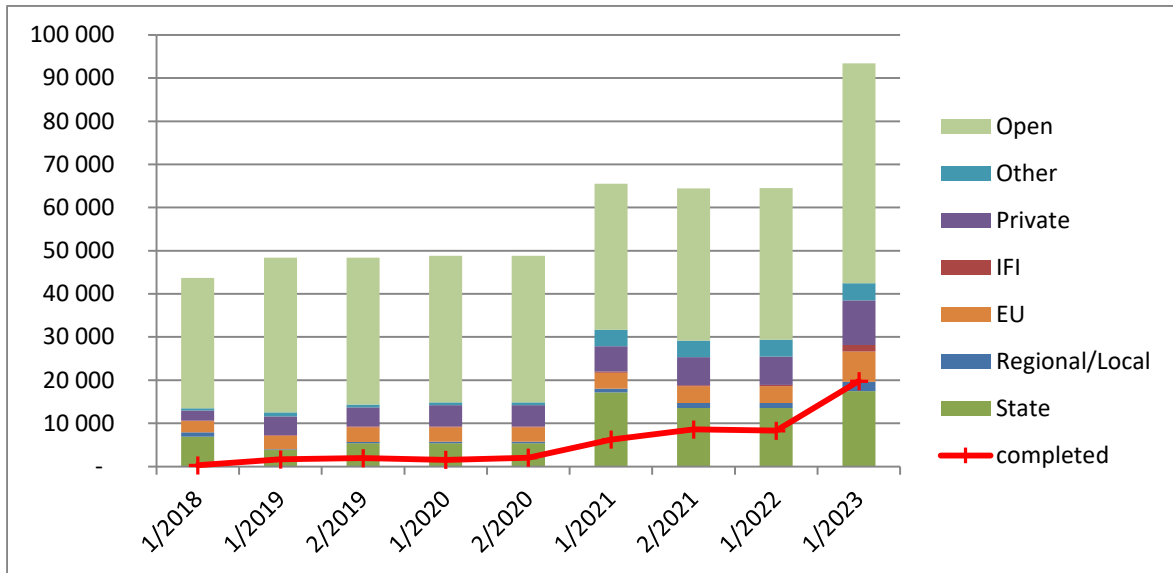
Figure 3-5: Status for Project Financing Source in Million €

Report N°	1/2018	1/2019	2/2019	1/2020	2/2020	1/2021	2/2021	1/2022	1/2023
Reporting Date	09/18	05/19	10/19	04/20	10/20	05/21	10/21	04/22	05/23
List Status	11/17	12/18	06/19	12/19	06/20	12/20	06/21	12/21	12/22
State	6 868	3 831	5 382	5 402	5 402	17 148	13 537	13 539	17 427
Regional/Local	1 034	176	310	315	315	912	1 169	1 186	2 216
EU	2 632	3 099	3 364	3 341	3 341	3 672	3 877	3 915	6 954
IFI	139	174	231	231	231	240	260	260	1 520
Private	2 296	4 313	4 427	4 919	4 919	5 893	6 473	6 541	10 379

Other	544	923	655	664	664	3 801	3 875	3 907	3 944
Open	30 151	35 843	34 013	33 959	33 966	33 877	33 963	35 150	50 984
Total Cost	43 665	48 358	48 382	48 832	48 838	65 543	64 425	64 498	93 424
thereof completed	284	1 655	1 940	1 520	2 043	6 223	8 582	8 304	19 792

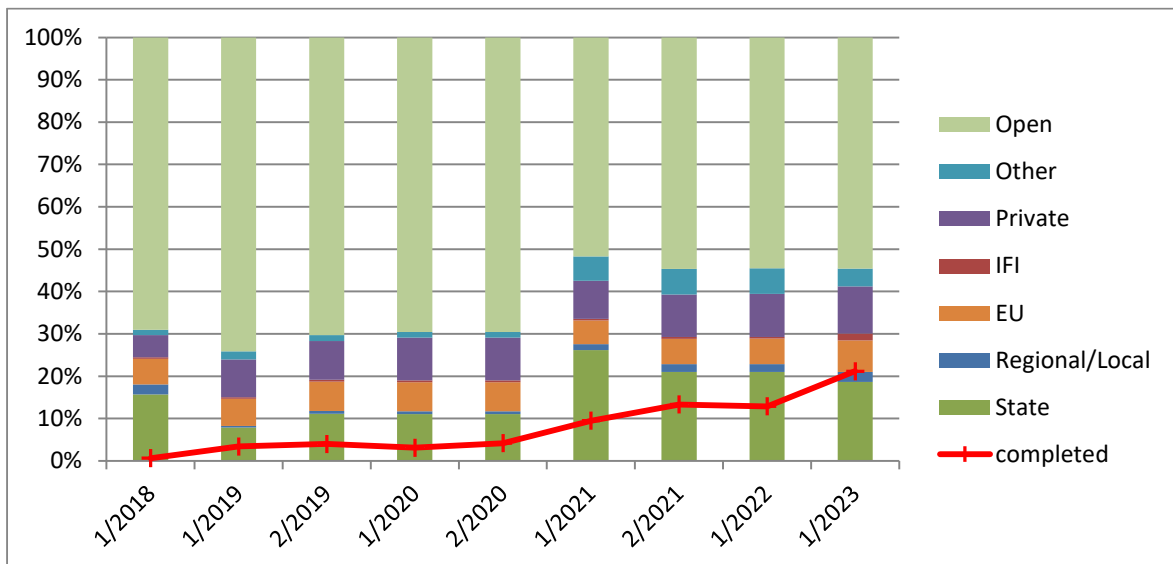
Source: Project Lists of Atlantic CNC 2017-2023

Figure 3-6: Evolution of Project Financing Source in Million €



Source: Project Lists of Atlantic CNC 2017-2023

Figure 3-7: Evolution of Project Financing Source (Share of Source) and value of completed projects in Million €



Source: Project Lists of Atlantic CNC 2017-2023

The following set of figures details the above financing costs in relation to the status of its approval.

The list presents the costs and finance of projects relevant per financing category for which the "highest" category "approved" finance is reached by the reporting time.

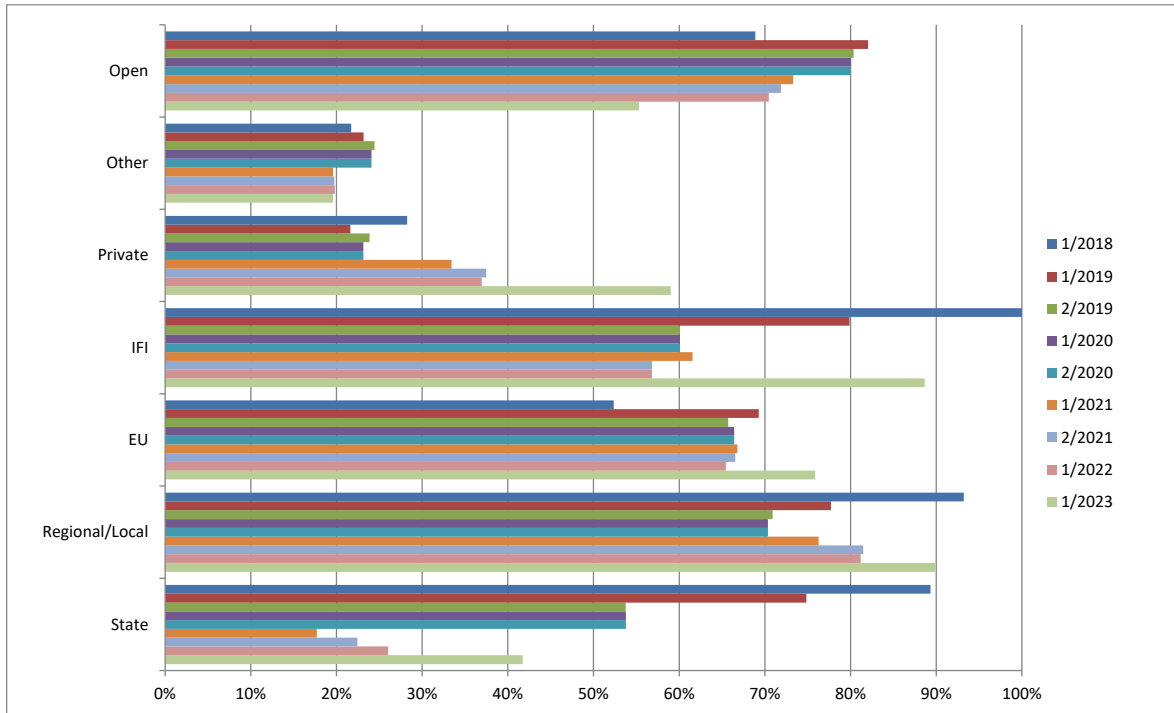
Figure 3-8: Status of approved finance by source of CNC Atlantic in Million €

Report N°		1/2018	1/2019	2/2019	1/2020	2/2020	1/2021	2/2021	1/2022	1/2023
Reporting Date		09/18	05/19	10/19	04/20	10/20	05/21	10/21	04/22	05/23
Parameter		11/17	12/18	06/19	12/19	06/20	12/20	06/21	12/21	12/22
Total Project Of which ...		43 665	48 358	48 382	48 832	48 838	65 543	64 425	64 498	93 424
... completed		284	1 655	1 940	1 520	2 043	6 223	8 582	8 304	19 792
... ongoing or planned of which financing ...		43 381	46 703	46 442	47 312	46 795	59 320	55 843	56 194	73 632
... provided		13 514	12 515	14 369	14 873	14 873	31 666	29 191	29 348	42 440
... „approved		9 384	6 437	6 679	6 784	6 784	9 045	9 907	10 386	22 787
State	Provided	6 868	3 831	5 382	5 402	5 402	17 148	13 537	13 539	17 427
	Approved	6136	2867	2893	2 905	2 905	3 034	3 036	3 523	7 273
Regional/ Local	Provided	1 034	176	310	315	315	912	1 169	1 186	2 216
	Approved	964	136	220	222	222	695	952	963	1 992
EU	Provided	2 632	3099	3 364	3 341	3 341	3 672	3 877	3 915	6 954
	Approved	1 378	2147	2 211	2 219	2 219	2 452	2 580	2 562	5 275
IFI	Provided	139	174	231	231	231	240	260	260	1 520
	Approved	139	139	139	139	139	148	148	148	1 348
Private	Provided	2296	4313	4427	4 919	4 919	5 893	6 473	6 541	10 379
	Approved	649	933	1056	1 139	1 139	1 971	2 426	2 416	6 126
Other	Provided	544	923	655	664	664	3 801	3 875	3 907	3 944
	Approved	118	214	160	160	160	745	765	774	773

Source: Project Lists of Atlantic CNC 2017-2023

The most relevant aspects in relation to status of approved financed show that about 90% of the provided budget for regions is approved, slightly above the 89% for IFI. About tree quarters of the EU provided budget is approved and nearly 60% for private financing is also approved. This share decreases to 42% when referring to state budget.

Figure 3-9: Status and Evolution of Approved Finance by Source in %



Source: Project Lists of Atlantic CNC 2017-2023

4 Monitoring of Difficulties

This chapter provides results on the monitoring of difficulties jeopardising completion of the Corridor and Requesting EU Coordinator's action.

According to the methodology agreed, Corridor Forum Members were asked to state any difficulty in the implementation of a specific project by answering the following question:

"Does (a/this) project have any difficulty jeopardising the completion of the Corridor by 2030 and where you are requesting action from the European Coordinator? Please describe the nature of the difficulty, why it jeopardises the completion of the Corridor as well as why and how the European Coordinator should act!"

The individual texts received back from the stakeholders will be analysed and presented. Since the nature of "difficulties" may be manifold and project specific, we will not be able to cluster them ex-ante but only after their receipt (ex-post), if at all.

For the current PIR, several projects have been marked by the stakeholders as requiring the attention from the Coordinator. Those projects are respectively:

ID	Project designation	Node/ section	Reasons for coordinator intervention
7163	City port of Triel-sur-Seine	Port of Paris	
7203	New Barreiro Terminal (south bank of Tagus river) and revamp of industrial and logistics area	Port of Lisboa	"Apart from political reasons, The Portuguese Environmental Agency (APA) decision was very much focused on the impacts of the project on the water body, as they fear that the implementation of the project may lead to a derogation procedure under article 4(7) of the Water Framework Directive, that may end up in court. We are firmly convinced that the impacts of the project on the quality of the water body are not as significant as APA fears based on the dredging volumes. The Barreiro Terminal is one of the Multimodal area essential to implement the Port of Lisbon's Multimodal Platform as a key tool for the effective integration into the multimodal Atlantic Core Network Corridor. Under this context we would apply for any support from the European Coordinator."
7548	Lisbon Airport upgrade and enlargement	Lisbon airport	
7549	Lisbon's second airport in Montijo	Lisbon airport	Typical risks associated with complex airport projects
7623	Jundiz RRT terminal at Vitoria	Vitoria - Irun / hendaya border Section	The Rolling Highway system to be implemented is not defined yet by France-Spain commission
7768	Project of flying junction in St-Lazare station	Paris Saint Lazare node	Paris Saint-Lazare circulation and Eole project
7806	Capacity expansion in Ludwigshafen node (Ludwigshafen main station) according to the rail freight transport forecast	Ludwigshafen node	Implementation of „Deutschland-Takt“ until 2030 currently under discussion
7807	Capacity expansion in Ludwigshafen node (Ludwigshafen-Mundenheim) according to the rail freight transport forecast	Ludwigshafen node	Implementation of „Deutschland-Takt“ until 2030 currently under discussion

ID	Project designation	Node/ section	Reasons for coordinator intervention
8311	MetroLink - Formerly Metro North	Dublin	Completion of corridor by 2034 reliant on Enforceable Railway Order and approval of Final Business Case
8953	N11 Jn 4 N11 to Kilmacanogue	Dublin	Funding Constraints

Nonetheless, despite such increase in the number of projects requiring the Coordinators' attention, it could be observed that in some cases no specific reason is referred, while in other cases the main critical issue is related to funding. Of particular interest for follow-up by the Coordinator are the two German projects in the Ludwigshafen node, the Metrolink project in Dublin dependent on an railway order and the Jundiz terminal, awaiting for the Spanish-French decisions on rolling motorways solutions.

The role of the Coordinator in the follow-up of the Inter-ministerial groups Portugal-Spain-France has been of extreme importance to accelerate and keep attention to the progress of ongoing works and to pressure for decisions across the three countries.

In the course of the studies (task 2.8), an analysis of the projects requiring synchronisation has been performed, from which it was identified the projects requiring more attention by the Coordinator. The additional projects (task 2.4) were also synchronised with the finalisation of existing projects in the same or neighbouring sections/nodes with the aim to have similar completion times. This will allow the European Coordinator to make appropriate suggestions to Member States as regards to the scheduling and timing of individual infrastructure projects.

A key added value of these tables is to show clearly to stakeholders that full potential of their investments can be reduced if same does not happen on the other side of the border.

The analysis has been done per mode. The key projects are presented below:

- Road projects

No further attention is required.

- Rail and Rail ERTMS

Between Portugal and Spain

On the south border PT-ES, projects are not fully synchronised, with planned end dates on the Portuguese side 12/2023 and 12/2030 on the Spanish side.

It should be noted that this border is covered by an Implementing Decision Évora-Mérida (https://ec.europa.eu/transport/sites/transport/files/c_2018_2356_f1_commission_implementing_decision_v2_p1_972036_en.pdf) with annual reporting to the Commission and the Coordinator. The works towards the completion of the Corridor missing link (Évora-border PT/ES in the alignment Évora-Mérida) are progressing and works progressing in the field. The conclusion of the works on the PT side is still planned for the end 2023. It is acknowledged that synchronisation is being assured through different mechanisms, including the Implementing Decision and the AVEP assembly, however Spain opts for not including more accurate dates in the Project List, keeping 2030 as the end dates. A similar case occurs on the north border (Vilar Formoso-Fuentes de Oñoro). Therefore, by the analysis of the Project List there is a risk of non-synchronisation.

Furthermore, it is worth referring to the EC proposal to extend the current Implementing Decision to the entire alignment of the high-speed line Lisboa-Madrid in view of its completion by 2030.

Between Spain and France

On the border ES-FR (Irun-Hendaye), a new project (marked in blue) on the French side referring to the connection Dax-Hendaye to close the GPSO was added by the consultants in order to take the full benefit of the Y Basque investments.

ID	Project Name	Start Date	End Date	KPI: Electrification	KPI: Track gauge 1435 mm	KPI: ERTMS implementation
17506	GPSO high-speed line between Dax and Hendaye	>2037	>2037	KPI target achieved	KPI target achieved	KPI target achieved

Between France and Germany

For the FR-DE border (section Forbach – Saarbrücken), ERTMS is the only KPI still to be achieved. This should be achieved before 2030.

5 Targeted analysis for necessary investments to complete the rail high-speed network

This analysis supplements the PIR, focusing on investments on the corridor rail network, already in view of the forthcoming revision of the TEN-T Regulation and discussed with MS in the framework of that revision process. A major focus is placed on the passenger network in line with the objective to connect the main cities with high-speed network.

Not all the investments herewith described are included in the PL. This results from two main reasons:

- Some projects belong to (future) alignments in the extended core network (i.e. Porto-Vigo). Therefore, not part of the current corridor alignment;
- Indication from Member States for the non-inclusion of estimated costs in the current PL (i.e. costs for the GPSO – Bordeaux – Toulouse and Bordeaux-Dax included in the PL with unknown costs and section Dax-Spanish border which corresponds to a missing link in the project list).

Overall, a magnitude of €42.7 bn will be needed for the high-speed rail network along the Atlantic Corridor, considering the required investments in France, Spain and Portugal. Ireland is not connected in the continental high-speed network and the German sections of the Atlantic Corridor are already completed.

In France for the completion of the GPSO, including the section Dax-Spanish border, nearly €13bn (estimated in 2020) will be needed.

Project	COST (page 40 Annexe)	FINANCING AFIFT France (page 173 "synthèse")	MAIN WORKS PLANNING SC 1	MAIN WORKS PLANNING SC 2	MAIN WORKS PLANNING SC 3
HSL Bordeaux – Toulouse (Project 7232+ 7733)	€6 350M (2020)	€2 540M (2021)	2033- 2037	2028- 2032	2023-2027
HSL Bordeaux – Dax (Part of Project 7086)	€2 540M(2020)	€990M (2021)	2038- 2042+	2038- 2042	2033-2037
HSL Dax – Spanish border (not in the list)	€4 000M (2020) to be revaluated	€1 760M (2021)	2043+	2043+	2038-2042 (depending on studies to be done again)

Note: Scenario 1: budget framing; Scenario 2: green planning --> main (or central) scenario according to which COI recommend public authorities to act; Scenario 3: priority to investments

In Spain, a total investment of €13.9 bn is still required for the completion of the Atlantic Corridor's high-speed Lines, notably for:

Alignment	COST M€	Planned conclusion
Salamanca-Fuentes de Oñoro (electrification)	149	
Y Basque	1 282	
All HS Lines	1 120	
Access Bilbao station	767	
Access Vitoria station	791	
3r rail Astigarra-San Sebastian-border FR	152	
3rd rail Astigarra – Lezo	500	
Burgos – Vitória	1 574	
Madrid – Sevilla (upgrade)	309	
Vigo – Border PT	837	
Lisboa – Madrid	3 804	
Caia – Badajoz	230	
Badajoz-Cáceres-Plasencia	1 070	
Madrid – Plasencia	1 054	

In Portugal, the required investment for the high-speed lines reaches €15.8 bn for the four lines Lisboa-Porto, Porto-Vigo, Aveiro-Vilar Formoso and Lisboa-Madrid.

Alignment	COST M€	Planned conclusion
Lisboa-Porto	5 700	
Phase 1 – Porto/Soure and phase 2 -Soure/Carregado	4 900	
Phase 3 – Carregado / Lisboa	800	
Porto-Vigo	2 400	
Phase 1 – Porto/Airport and Braga/Valença	1 700	
Phase 2 – Airport / Braga	600	
Aveiro – Vilar Formoso	3 700	
Phase 1 – Aveiro / Viseu / Mangualde	1 500	
Phase 2 – Mangualde / Vilar Formoso	2 200	
Lisboa-Madrid	4 049	
Tagus river crossing	1 500	
Lisboa – Poceirão (except TTT)	500	

Poceirão – Évora	1 100
Évora – Elvas (incl. Norte and 2nd track)	
Elvas - Caia	799
	150

Through the completion of the Lisbon - Madrid high-speed rail connection, it is foreseen that travel between the two capitals could be carried out in less than three hours. The fifth Work Plan of the Atlantic Corridor Coordinator emphasises the importance of accelerating the finalisation of this high-speed rail cross-border connection as a way of providing an alternative to the large number of daily flights between Lisbon and Madrid.

Overall, to achieve this objective, an investment of nearly €7.8 b-€n is still needed, for which the CEF financial support is critical. The Coordinator's intention to extend the Implementing Decision Évora-Mérida to the entire Lisboa-Madrid alignment is also a demonstration of the urgency and relevance of this investment for the Corridor.



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