IMPORTANT NOTICE

What is the Application Form?

The Application Form is the template for EU grants applications; it must be submitted via the EU Funding & Tenders Portal before the call deadline.

The Form consists of 2 parts:

- Part A contains structured administrative information
- Part B is a narrative technical description of the project.

Part A is generated by the IT system. It is based on the information which you enter into the Portal Submission System screens.

Part B needs to be uploaded as PDF (+ annexes) in the Submission System. The templates to use are available there.

How to prepare and submit it?

The Application Form must be prepared by the consortium and submitted by a representative. Once submitted, you will receive a confirmation.

Character and **page limits**:

- page limit normally **120** pages (unless otherwise provided in the Call document)
- supporting documents can be provided as an annex and do not count towards the page limit
- minimum font size — Arial 9 points
- page size: A4
- margins (top, bottom, left and right): at least 15 mm (not including headers & footers).

Please abide by the formatting rules. They are NOT a target! Keep your text as concise as possible. Do not use hyperlinks to show information that is an essential part of your application.

⚠ If you attempt to upload an application that exceeds the specified limit, you will receive an automatic warning asking you to shorten and re-upload your application. For applications that are not shortened, the excess pages will be made invisible and thus disregarded by the evaluators.

⚠ **Please do NOT delete any instructions in the document. The overall page limit has been raised to ensure equal treatment of all applicants.**

⚠ This document is tagged. Be careful not to delete the tags; they are needed for the processing.

TECHNICAL DESCRIPTION (PART B)

COVER PAGE

Part B of the Application Form must be downloaded from the Portal Submission System, completed and then assembled and re-uploaded as PDF in the system. Page 1 with the grey IMPORTANT NOTICE box should be deleted before uploading.

Note:

Please read carefully the conditions set out in the Call document (for open calls: published on the Portal). Pay particular attention to the award criteria; they explain how the application will be evaluated.

The term 'project' used in this application form and other documents is synonymous to the term 'action' used in the CEF Regulation 2021/1153.

PROJECT	
Project name:	Cross-border section of the new Turin-Lyon railway line on the Mediterranean TEN-T CNC
Project acronym:	TELT
Coordinator contact:	[redacted], TELT
Starting date	January 2024
Duration	[redacted] months

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#@APP-FORM-CEFT@#
#@PRJ-SUM-PS@# [This document is tagged. Do not delete the tags; they are needed for the processing.]

PROJECT SUMMARY

Project summary

See Abstract (Application Form Part A).

This project is at the heart of the European dream for the construction of a TEN-T Network, and it consists in the realization of the works for the cross-border section of the new Turin-Lyon line and of the Mont Cenis base tunnel. The new rail line constitutes a major element of the local, national and European transportation system, ensuring significant improvements in the transit times and modal shift in favour of passenger and cargo rail services, improving accessibility and limiting the congestion and all the environmental externalities of the valleys produced by by road traffic. The Turin-Lyon is an essential part of the Mediterranean Corridor, being one of the 9 railway axes that belongs to the European TEN-T network. The base tunnel, that is the main component of the cross-border section, is currently at an advanced state of construction with cofinancing from Italy, France, and Europe. In particular, the European Commission is funding the realization of the cross-border tunnel through the CEF funding programmes (on-going Action "2014-EU-TM-0401-M-Cross Border Section of the New Turin-Lyon Rail Link Mont Cenis base tunnel"). The present project represents the follow-up of this initiative for the European programming period 2021-[redacted] The project is located between Saint-Jean-de-Maurienne and Susa/Bussoleno of the French-Italian common part as defined by the International Treaty of 2012. It includes the connection to the existing line in Saint-Jean-de-Maurienne railway station, the Mont- Cenis cross-border base tunnel (around 57.5 km), the Susa valley crossing, the interconnecting tunnel between Susa and Bussoleno (approx. 2 km) and the entry into the existing Bussoleno railway station.
The project promoter of this Application is TELT Tunnel Euralpin Lyon Turin, which is the public binational promoter responsible for the realization and operation of the cross-border section of the mixed Turin-Lyon freight/passenger railway line.

#§PRJ-SUM-PS§# #@REL-EVA-RE@# #@PRJ-OBJ-PO@#

0. PROJECT DESCRIPTION

Project description, scope and objectives

Describe the project scope, main goals and objectives, as well as the technical data.

Please use the following structure:

- *Overall objective*
- *General description and context — describe the context, including political priorities and if the project is part of a bigger project ('global project', including projects of common interest)*
- *Location — mention where on the network/corridors the project will be implemented*
- *Justification — describe the current situation and needs analysis*
- *Specific objectives — list and link them to the work packages used in section 6*
- *Expected outcomes and results — include facts and statistics (for instance, quantitative information expressed in km, MVA, Bcm/y, kV, bar, etc.).*

1- Overall objective

This project is at the heart of the European dream for the construction of a TEN-T Network, and it consists in the realization of the works for the cross-border section of the new Turin-Lyon line and of the Mont Cenis base tunnel between Italy and France.

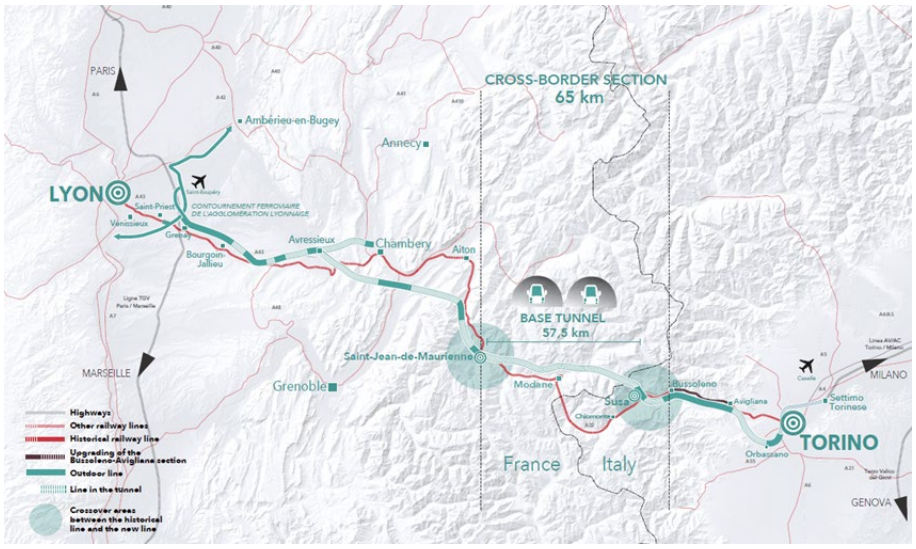
Works for the construction of the base tunnel of the Mont Cenis

The project is located between Saint-Jean-de-Maurienne and Susa/Bussoleno and It includes the connection to the existing line in Saint-Jean-de-Maurienne, the Mont-Cenis cross-border base tunnel (around 57.7 km), the Susa valley crossing, the interconnecting tunnel between Susa and Bussoleno (approx. 2 km) and the entry into the existing Bussoleno railway station.
The Turin-Lyon railway section is an essential part of the Mediterranean TEN-T Core Network Corridor, one of the 9 multimodal axes belonging to the European TEN-T network. The line between France and Italy represents the central section of a railway corridor across railway corridor across Spain, France, Italy, Slovenia, Croatia and Hungary, serving 18% of the European population and 17% of the EU's GDP. An axis that unites East and West of the continent, crossing 7 of the 9 European Corridors financed by the EU. The Corridor has a length of about 3,000 km and was created to promote economic exchanges and strengthen the competitiveness of the countries of Mediterranean Europe, through a railway network at the same time of high speed and high freight / passenger capacity, which also crosses the major ports, maritime and river ports, rail-road terminals, large cities, and airports.

2- General description and justification

The realisation of the Turin-Lyon line is established by four international agreements between Italy and France (1996, 2001, 2012 and 2015, supplemented by the Additional Protocol of 2016). Between the end of 2016 and the beginning of 2017, the Italian and French parliaments ratified the agreements , allowing the final works to start[1]. With this step, the decision-making procedure for the work was completed, in Italy and France. In addition, this project is the result of a wide participatory planning. In Italy, it was managed by the Turin-Lyon Observatory, established by the Italian government in 2006. After 205 work sessions and 300 auditions of technicians and experts, and 10 route alternatives, a definitive project route was established in 2013 and approved in 2015. A Débat Public (Public Consultation) took place in France before the works were approved, coordinated by an independent commission, regarding the feasibility of the realization of the works and the project itself.
The new tunnel will transform the current mountainous rail line into a plain railway, making rail transport more competitive. Trains that travel on flat ground allow energy savings and achieve higher speeds. In the Italian-French section, the current (so-called "historic") line does not currently comply with international transport standards: it climbs the mountain with a slope of up to 30‰, so the freight trains need up to 3 locomotives, with a 40% higher energy cost. The diameter of the old Fréjus tunnel, inaugurated in 1871, is smaller than that required by current international standards and it has a single-tube which does not meet current safety standards. When the Turin-Lyon line will be operational, over 1 million lorries used for international road transport will no longer be present on alpine roads, thus reducing CO2 emissions by 3 million tons per year. The reduction of polluting emissions in the Alpine region is one of the primary objectives set by COP21, the Climate Conference held in Paris in 2015, during which the need to transfer 30% of freight to railway transport by [redacted] and 50% of it by [redacted] was reiterated. Once completed, the new tunnel will allow the passage of trains with a maximum length of 750 meters. The average speed on the line is 220 km/h, and equal to 100-120 km/h for goods and railway motorway. The capacity of the convoys will increase from the current 1,050 tons to 2,050 tons, making rail freight transport very attractive on this cross-border route.
For the purposes of the present CEF action, **the overall construction of the New Turin-Lyon Line (NLTL) represents the Global Project**. The Global Project is divided into three sections: a French national section from Lyon to Saint-Jean-de-Maurienne, entrusted to [redacted] ([redacted] now [redacted]), the cross-border section of the Moncenis from Saint-Jean-de-Maurienne to Bussoleno under the responsibility of Tunnel Euralpin Lyon Turin SAS (TELT); the Italian national section, under the responsibility of [redacted] ([redacted] which runs from Bussoleno to the junction with the High Speed – High Capacity railway line Turin-Milan near Settimo Torinese. **The present application refers to construction works of the cross-border section** (Alpine crossing – TELT). The base tunnel, at the heart of this initiative, is currently at an advanced state of construction with co-financing from Italy, France and Europe. Also the European Commission has financed the realization of the cross-border tunnel through the TEN-T and CEF funding programmes (ongoing Action "2014-EU-TM-0401-M-Cross Border Section of the New Turin-Lyon Rail Link Mont Cenis base tunnel (TBM).

[1] In particular we are referring to the following agreements: "Accord entre le Gouvernement de la République française et le Gouvernement de la République italienne pour l'engagement des travaux définitifs de la section transfrontalière de la nouvelle ligne ferroviaire Lyon-Turin / Accordo tra il Governo della Repubblica francese e il Governo della Repubblica italiana per l'avvio dei lavori definitivi della sezione transfrontaliera della nuova linea ferroviaria Torino-Lione" of February 24th 2015; "Protocole additionnel entre le Gouvernement de la République française et le Gouvernement de la République italienne à l'Accord du 24 février 2015 pour l'engagement des travaux définitifs de la section transfrontalière de la nouvelle ligne ferroviaire Lyon Turin"/Protocollo addizionale tra Il Governo della Repubblica francese e Il Governo della Repubblica italiana all'Accordo del 24 febbraio 2015 per l'avvio dei lavori definitivi della sezione transfrontaliera della nuova linea ferroviaria Lione - Torino" of March 8th 2016.



Layout of the New Turin-Lyon Line

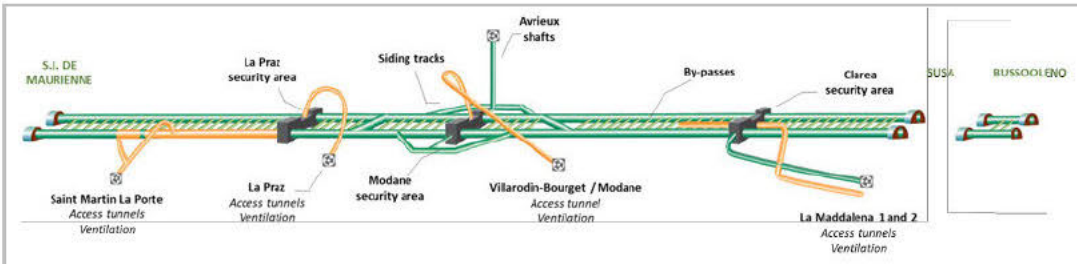
3- Location

This project is located on the cross-border section of the Turin-Lyon railway line along the Mediterranean TEN-T Core Corridor. This line corresponds to a pre-identified priority section identified by the Annex Part III of the EC Regulation 1153/2021. Two Regions are directly involved by the project: Auvergne-Rhône-Alpes (France) and Piedmont (Italy). More specically the following Municipality are involved:

- Italy: Susa, San Didero, Buttigliera Alta, Chiomonte, Giaglione, Venaus, Salbertrand, Caprie, Torrazza;
- France: Villarodin-Bourget, Modane, Avrieux, Saint Martin La Porte, La Praz, Saint Julien Mont Denis, Saint Jean de Maurienne, Villargondrand.

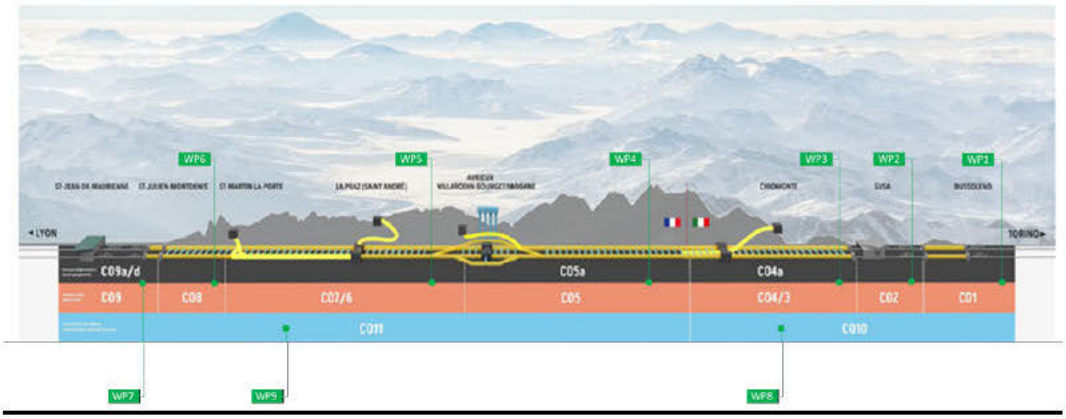
4- Specific objectives

The present proposal aims at realising the Mont Cenis base tunnel, core part of the NLTL, through a number of technical Work Packages, each of them corresponding to a specific objective of the project and its realization. The project consists in the realization of two independent tunnels connected by 180 by-passes, one every 330 m, three underground safety areas to rescue passenger (La Praz, Modane, La Maddalena), a fire and ventilation system along the entire tunnel. Overall, the tunnel will count of 140 km of tracks and catenaries to allow up to ten trains to run simultaneously. It will run of approximately for 45 km on the French side and 12.5 km on the Italian side, with an average distance between the two single tubes equal to 40 m. Each tube has a circular section with a minimum useful internal diameter of 8.40 m including 30 cm of tolerance of construction. The base tunnel will be powered by three electrical substations located in Susa, S. J. de Maurienne and Modane. Two control centres will supervise the passage of trains with the support of 900 video cameras and sensors generating real time data. The ventilation system will use the 500 meters deep Avrieux shafts and the four access adits built along the tunnel in Saint Martin La Porte, La Praz, Villarodin-Bourget/Modane and La Maddalena. These adits will also provide access to the deepest areas of the infrastructure where ordinary and extraordinary maintenance will be realized, but also for security purposes. Thanks to the multifunctional portals, a single tube can be closed if necessary. Rescue trains and firefighting vehicles ready to respond 24 hours a day will be available along the entire tunnel. The image below presents the structure of the base tunnel, once it will be completed. All the tunnels will be excavated mainly with mechanized milling machines (TBM Tunnel Boring Machines) but also with traditional methods (explosive and digging machines) depending on the nature of the mountain. The average advancement speed of the TBM depends on the geological characteristics of the mountains and it is estimated in 10 meters per day. In order to proceed with the construction of the cross-border section, the works on the base tunnel will proceed from the access points already completed and from the 4 declines tunnel (adits) of Saint Martin La Porte, La Praz, Villarodin-Bourget/Modane, La Maddalena which provide access for the construction equipment. During the full capacity operations, there will be 15 excavation faces and 7 TBM moving forward simultaneously, while it is worth to mention that 2 BTM completed the excavation.



The Mont Cenis base tunnel of the NLTL
(Orange components are completed)

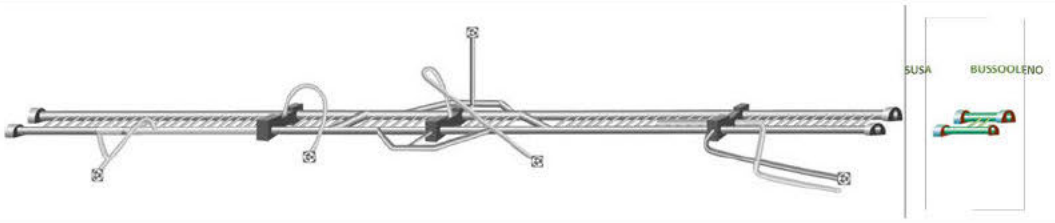
The following boxes are presenting the main structure of the project. It is conceived in order to ensure a smooth and actual monitoring of the construction works during the implementation phase of the future Grant Agreement and for this reason the Promoter **TELT is organizing the Application on the basis of the "Operating Construction Sites - CO" (cantieri operativi / chantiers opérationnels)**, that are constantly monitored from a financial and technical perspective (more information is included in Chapter 6). Each operating construction site represents an independent task to be completed by TELT. The project structure is set as follows:



Work Package 1 – Interconnection of Bussoleno CO 01

Please consider, for all the following WPs, that the technical progress is based on the financial expenditures expected for this project. In fact, the financial statement reflects the physical implementation (invoices are issued considering the cumulative progress of the construction works). For these reasons, at this stage of the project preparation, we consider the budgetary instalments more adequate to monitor the progress of the works.

Objectives	
This Work Package includes all the activities related to the Operating Construction Site 1. The Operating Construction Site aims at realizing the construction of the 2 km Susa-Bussoleno interconnecting tunnel including the connection of the NLTL with the historic line in the station of Bussoleno. Only one task is foreseen for this WP: Task 1.1 Interconnection of Bussoleno - CO 01 The following main construction works are foreseen: • The construction of 2 interconnecting tunnels of 2 kms each between Susa and Bussoleno; • The construction of the technical areas and the railway buildings serving the line (Command and Control systems, first aid structures, fire-fighting buildings, railway buildings etc.); • The connecting tracks of the new line with the historic line in Bussoleno; • The construction of a bridge over the Dora Riparia river (about 75m length) before the entrance in the station of Bussoleno and another one before the international station of Susa The interconnection is necessary to allow the trains to maintain an adequate travel dynamic, in terms of speed and slopes of the line, when exiting the base tunnel.	
Technical progress future GA –January 2024	0%
Expected technical progress future GA – [redacted]	100%
Technical progress within the Alpine Crossing project horizon 2018-[redacted] –January 2024	0%
Expected technical progress within the Alpine Crossing project horizon 2018-[redacted] – [redacted]	19%



Maturity
The tender of the execution of the works has been launched and the applications are under evaluation. The award and the signature of the contract with the assigned company is expected at the beginning of [redacted] However, the administrative activities will take place between February 2024 to [redacted] and the construction works for this Operating Construction Site are expected to start in [redacted] after the preparation of the detailed design to be realized by the same contractor.

Investment costs	**41.225.741 €**
CEF Requested co-funding	**20.612.871 €**

Work Package 2 – Civil works in Susa Plain CO 02

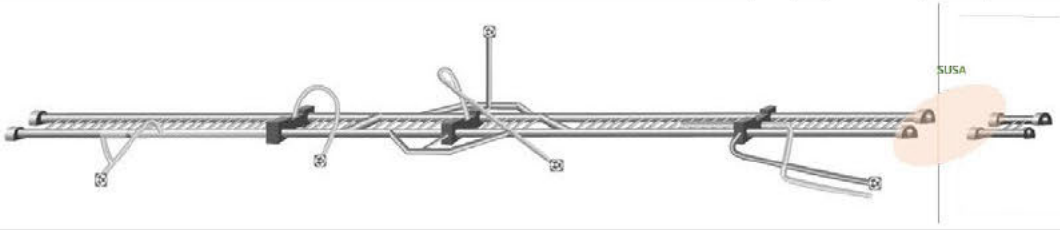
Objectives

This Work Package includes all the activities related to the Operating Construction Site 02. **This Work Package consists in the realization of the all the open-air civil works in Susa plain to realize the NLTL infrastructure between the East entrance of the base tunnel and the interconnecting tunnel between Susa and Bussoleno.**
Four tasks are foreseen for this WP: Task 2.1 Open-air civil works CO 02A; Task 2.2 Adaptation of A32 motorway and new Susa Est interchange CO 02B; Task 2.3 New Autoport [redacted] CO 02C; Task 2.4 New "Safe driving" track [redacted] CO 02D; Task 2.5 The Henry Barrack building CO O2E.
The following main construction works are foreseen:

- The construction of the railway infrastructure in the Susa plain connecting the Eastern entrance of the base tunnel with the interconnecting tunnel of Bussoleno (Task 2.1);
- The adaptation of the motorways and streets around the railway line, especially the A32 motorway and the construction of the new Susa Est interchange (Tasks 2.1 and 2.2);
- The construction of a new Autoport between San Didero and Bruzolo, managed by [redacted] replacing the current one in Susa, clearing the areas involved by the construction site of the base tunnel. The new Autoport will be used by the heavy vehicles involved in the construction works and will be used in case of exceptional events avoiding queues of heavy goods vehicles that could block the motorway by diverting them to a special temporary rest area while waiting for ordinary motorway traffic conditions to be restored. (Task 2.3);
- The relocation of the Safe driving track managed by the company [redacted] clearing the areas involved by the construction site of the base tunnel (Task 2.4);
- The Henry Barrack building, part which will be renovated and transformed into a 'TELT Info Point' for the duration of the NLTL works and partly into the financial police office (Task 2.5).

It is worth to mention that the construction of the international station of Susa, part of the Global Project, is not included in this application proposal since the design studies and approval process is still ongoing.

Technical progress future GA –January 2024	0%
Expected technical progress future GA – [redacted]	100%
Technical progress within the Alpine Crossing project horizon 2018-[redacted] –January 2024	6%
Expected technical progress within the Alpine Crossing project horizon 2018-[redacted] – [redacted]	46%



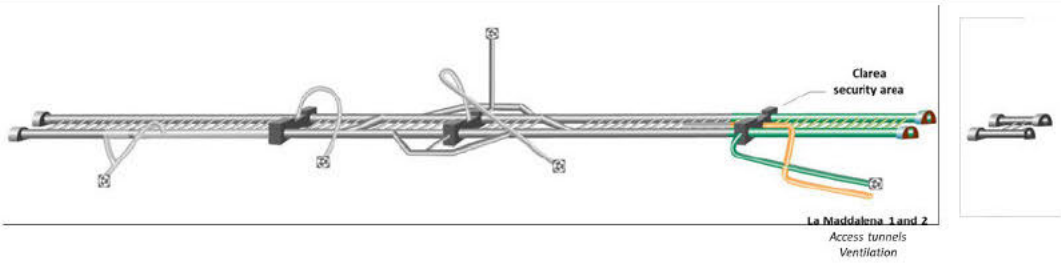
Maturity
Task 2.1 Open-air civil works CO 02A: the contract for the works supervision has been awarded, the tender for the award of the construction works is under preparation. Tenders will take place between March 2024 and [redacted] The administrative activities will take place between February 2024 to [redacted] The estimated timeline for the start of the detailed design for works is [redacted]. Task 2.2 Adaptation of A32 motorway and new Susa Est interchange CO 02B: the contract for the works supervision has been awarded, the tender for the award of the construction works is under preparation ([redacted] Agreement). The administrative activities take place between February 2024 to [redacted]. The estimated timeline for the start of the works of the new Susa Est interchange is [redacted].The estimated timeline for the start of the works for the elevation of the A32 motorway is [redacted]. Task 2.3 New Autoport [redacted] CO 02C: the works are ongoing, and the construction of the buildings will be completed in [redacted] and the final activities will be completed by [redacted]. TELT will carefully respect the rules foreseen by European regulation about the Double Financing (Regulation EU 2021/1153, Art. 19) and the budget for this task will start from [redacted] without overlapping the Grant Agreement in force (2014-EU-TM-0401-M). Task 2.4 New "Safe driving" track [redacted] CO 02D: at this stage of the project the agreement with [redacted] is almost finalized. The construction works will start in [redacted] and are expected to be completed in [redacted].Task 2.5 Info point Henry Barrack CO 02E: the works are ongoing, and they will be completed in [redacted].

Investment costs	**177.872.672 €**
CEF Requested co-funding	**88.936.336 €**

Work Package 3 – Base tunnel Maddalena-Susa CO 03-04

Objectives
This Work Package includes all the activities related to the Operating Construction Site 03-04 and **consists in the excavation of the base tunnel along the section between La Maddalena and Susa**, under the Ambin massif. Three tasks are foreseen for this WP: Task 3.1 Construction of the base tunnel between Susa and La Maddalena CO 03 – 04; Task 3.2 Chiomonte A32 Interchange 04 C The following main construction works are foreseen: - the construction of the access tunnel of La Maddalena 2 and of the base tunnel towards Susa (Task 3.1): the excavation of La Maddalena 2 of around 2.5 km will start in [redacted] and it will be used as a survey tunnel, having the same diameter of the base tunnel. Traditional excavation method and TBM will be used for realizing it. According to the variant study this tunnel will be the access point for the TBM which will begin boring towards Susa, realizing around 9,5 km of base tunnel in each direction, totalling 19 km of base tunnel. Once operational, La Maddalena 2 will be used for ventilation and smoke extraction for the base tunnel, and, partially, for the definitive storage of dangerous green rocks after the excavation phase. The construction of connecting tunnels to be used for the access of the safety vehicles, ventilation, storage of green rocks and the realization of the Clarea safety site is also foreseen. - the new interconnection with the A32 Motorway (Task 3.2): this interconnection will consist in a new dedicated motorway junction, used as service road during the construction works, in order to avoid impacts on road traffic in Chiomonte during the realization of the works. After the completion of the project, the junction will remain available to emergency services and as an access road to the base tunnel. The project provides for the construction of a bidirectional viaduct of around 600 metres from the exit of the 'Giaglione' gallery, which will allow to reach the site directly. Complementary works for the realization of technical caverns, logistic sites for the assembling of the TBM inside the base tunnel, inner tube tunnels are foreseen for this WP.

Technical progress future GA –January 2024	0%
Expected technical progress future GA – [redacted]	100%
Technical progress within the Alpine Crossing project horizon 2018-[redacted] –January 2024	6%
Expected technical progress within the Alpine Crossing project horizon 2018-[redacted] – [redacted]	60%



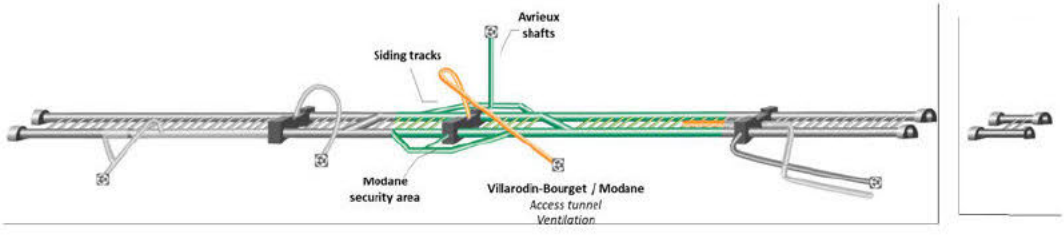
Maturity
Task 3.1 Construction of the base tunnel between Susa and La Maddalena CO 03 – 04: the tender for the realization of the construction works is going to be awarded by the end of 2023. The contract for construction supervision and for the management of safety and security have been awarded. The task is expected to start in January 2024 with the preparatory works of the site and excavation with the traditional method of the tunnel La Maddalena 2. The excavation of the tunnel La Maddalena 2 with the TBM is going to start in [redacted].Furthermore, the 2 TBMs are going to start the excavation of the base tunnel towards Susa with TBMs in [redacted], the same TBM used for the La Maddalena 2, and [redacted]. Task 3.2 Chiomonte A32 Interchange 04 C: [redacted] as implementing body of this Task, has already awarded the contract for the construction works, which are currently ongoing. The completion date is estimated in [redacted]. TELT will carefully respect the rules foreseen by European regulation about the Double Financing (Regulation EU 2021/1153, Art. 19) and the budget for this task will start from [redacted] without overlapping the Grant Agreement in force (2014-EU-TM-0401-M).

Investment costs	**729.503.408 €**
CEF Requested co-funding	**364.751.704 €**

Work Package 4 – Base tunnel Villarodin-Bourget/Modane – La Maddalena CO 05

Objectives
This Work Package includes all the activities related to the Operating Construction Site 05, **focused on the excavation of the base tunnel along the section between Modane and La Maddalena**. Two tasks are foreseen for this WP: Task 4.1 Construction of the base tunnel between Modane and La Maddalena CO 05; Task 4.2. Construction of the two shafts in the Municipality of Avrieux 05A The following main construction works are foreseen: - the excavation from the area of Villarodin-Bourget/Modane of a double tube section with TBMs towards "La Maddalena", for about 18 km each direction, totalling 36 km (Task 4.1); - the excavation from the area of Villarodin-Bourget/Modane of a double tube section in traditional method towards "La Praz" (Task 4.1); - the construction of 'Modane security area' with traditional method The excavation towards Modane will proceed with two TBMs boring in parallel. The construction of the Modane security area (approx. 750m) is also envisaged within this Task.(Task 4.1); - the construction of the ventilation shafts in the municipality of Avrieux (Task 4.2). Complementary works for the realization of technical caverns, logistic sites for the assembling of the TBM inside the base tunnel, inner tube tunnels are foreseen for this WP.

Technical progress future GA –January 2024	0%
Expected technical progress future GA – [redacted]	100%
Technical progress within the Alpine Crossing project horizon 2018-[redacted] –January 2024	14%
Expected technical progress within the Alpine Crossing project horizon 2018-[redacted] – [redacted]	47%



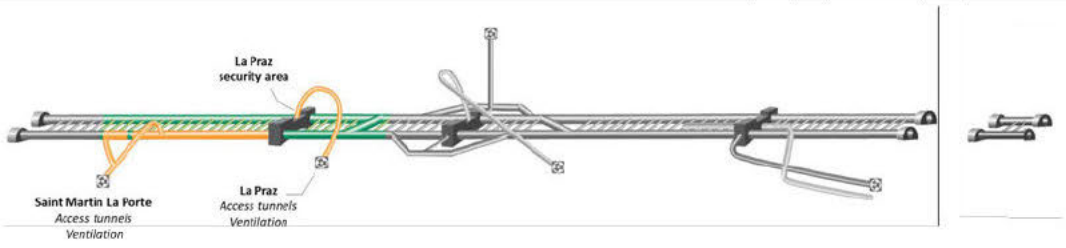
Maturity
Task 4.1 Construction of the base tunnel between Modane and La Maddalena CO 05: construction works on complementary components of the tunnel are ongoing. The executive studies, engineering and the provision of technical offices are ongoing. The excavation of the base tunnel with 2 TBMs is expected in [redacted] and [redacted]. Task 4.2. Construction of the two shafts in the Municipality of Avrieux 05A: construction works are ongoing and they will terminate in [redacted] The budget for this task will start from March 2024 without overlapping the Grant Agreement in force.

Investment costs	**775.799.618 €**
CEF Requested co-funding	**387.899.809 €**

Work Package 5 – base tunnel S. Martin La Porte-Modane CO 06-07.

Objectives
This Work Package includes all the activities related to the Operating Construction Site 06-07. This Work Package concerns the excavation of the **base tunnel along the sections between S. Martin La Porte and La Praz and between La Praz and Modane**. The Southern tube of the base tunnel between S. Martin La Porte and La Praz was completed in 2019 for about 9 km. In addition, two access tunnels are already in place, one in St. Martin La Port (2,4 km, completed in 2010), and one in La Praz (2,5 km, completed in 2009). Once the base tunnel becomes operational, these access tunnels will serve as a ventilation duct and as a maintenance and safety passage. Two main Tasks are envisaged for this Work Package: Task 5.1 Construction of the base tunnel between La Praz and Modane CO 06; Task 5.2 Construction of the base tunnel between S. Martin La Porte and La Praz. CO 07. The following main construction works are foreseen: - the excavation of the Northern single tube section from St. Martin La Port and La Praz for about 8,9 km with 1 TBM (Task 5.2). - the excavation of a double tube section between La Praz and Modane for about 9,38 km with 2 TBMs (Task 5.1). - the excavation of La Praz security site in traditional method (750 m) (Task 5.1); - excavation of a double tube section in traditional excavation method towards the Western entrance from the St. Martin La Porte (2 tubes of 2,14 Km) (Task 5.2) Complementary works for the realization of technical caverns, logistic sites for the assembling of the TBM inside the base tunnel, inner tube tunnels are foreseen for this WP.

Technical progress future GA –January 2024	0%
Expected technical progress future GA – [redacted]	100%
Technical progress within the Alpine Crossing project horizon 2018-[redacted] –January 2024	12%
Expected technical progress within the Alpine Crossing project horizon 2018-[redacted] – [redacted]	100%



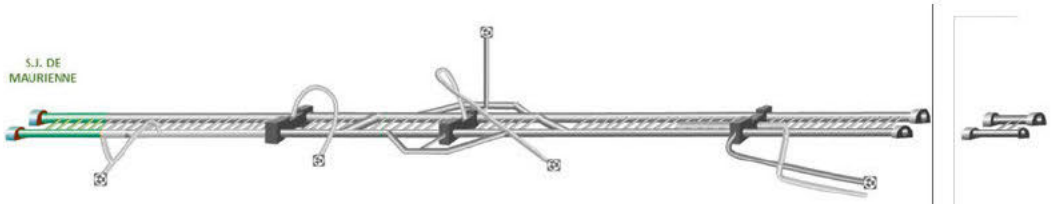
Maturity
Task 5.1 Construction of the base tunnel between La Praz and Modane CO 06: construction works are ongoing on La Praz safety area. The excavation with traditional method is ongoing. The TBMs are going to start excavating in [redacted] and [redacted]. Task 5.2 Construction of the base tunnel between S. Martin La Porte and La Praz. CO 07: the construction works of the base tunnel with traditional method are ongoing. The TBM is going to start excavating in the second tunnel towards La Praz in April 2024. The budget for this task will start from March 2024 without overlapping the Grant Agreement in force.

Investment costs	**1.629.864.897 €**
CEF Requested co-funding	**814.932.449 €**

Work Package 6 – base tunnel between S. Julien Mont Denis – S. Martin La Porte CO 08

Objectives
This Work Package consists in the **excavation of the base tunnel along the section between S. Julien Mont Denis, at the entrance of the base tunnel, and S. Martin La Porte**, including all the necessary works for the construction of the base tunnel along this section. One main Task is envisaged for this Work Package: Task 6.1 Construction of the base tunnel between S. Julien Mont Denis - S. Martin La Porte CO 08. The following main construction works are foreseen: - The excavation of the base tunnel along this section, consisting in the excavation from the Western entrance of two tubes of about 3 km each, totalling more than 6 km, using the traditional excavation method, and more precisely the "umbrella arch method (UAM)" (Task 6.1). Woks are currently on-going and around 450 meters have been excavated. All the preliminary works at Villard Clement have been completed (such as installation of platforms, ventilation, cooling and drainage installations required for underground works, installations to remove excavation materials). - At the entrance of the tunnel an artificial tube, constructed with cut and cover method is already in place (corresponding to the Operating Construction Site CO09.A – "tranche couvert"- completed) and this infrastructure will represent the entrance to the base tunnel on the French site. More specifically, the entrance of the base tunnel will be at the covered trench that will allow the new railway line to pass under the A43 motorway at Villard-Clément. At the end of the works, within this WP, all the construction site between the entrance of the tunnel at the tranche couvert and the Operating Construction Site in S. Julien Mont Denis, will be covered with terrain in order to restore the natural landscape.

Technical progress future GA –January 2024	0%
Expected technical progress future GA – [redacted]	100%
Technical progress within the Alpine Crossing project horizon 2018-[redacted] –January 2024	33%
Expected technical progress within the Alpine Crossing project horizon 2018-[redacted] – [redacted]	100%



Maturity
Task 6.1 Construction of the base tunnel between S. Julien Mont Denis - S. Martin La Porte CO 08: the construction of the base tunnel with traditional method towards St. Martin La Porte is ongoing and its completion is expected in [redacted]. Complementary works at the entrance of the tunnel, in parallel with CO 09 are going to continue until [redacted] and we expect the overall administrative, technical and financial closure of the construction site by [redacted]. The budget for this task will start from March 2024 without overlapping the Grant Agreement in force.

Investment costs	**205.484.724 €**
CEF Requested co-funding	**102.742.362 €**

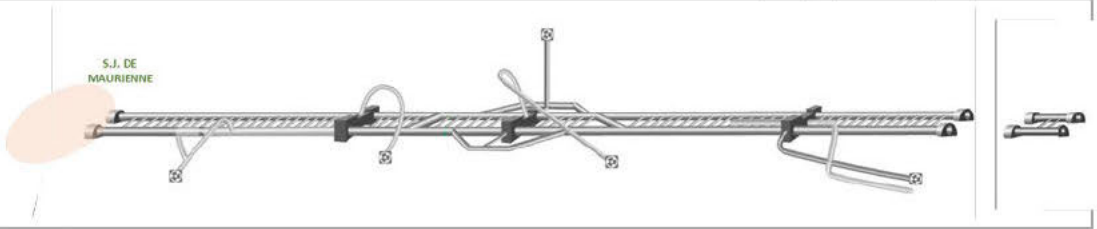
Work Package 7 – Civil works in the S. J. de Maurienne plain CO 09.

Objectives
This Work Package consists in **all the construction works at the Western entrance of the base tunnel** to allow the integration of the NLTL with the existing French railway network. In Saint Jean de Maurienne plain, civil works at the base tunnel will interfere with the national railway network various works and deviations are required. Part of this Work Package is under the responsibility of [redacted] as implementing body. In addition, this WP will cover all the construction works on the S.J. de Maurienne plain in order to adapt the existing infrastructures (road and railway) to the future tunnel. Part of these works, related

to the adaptation of the railway infrastructure are divided in six phases which are under the responsibility of [redacted] as implementing body, while the financing is under the responsibility of TELT. The construction of a Multimodal Exchange Centre at the station of S. J. de Maurienne is also envisaged under this WP.
Three main Task is envisaged for this Work Package: Task 7.1 Open air construction works in the plain of S. Jean De Maurienne [redacted] CO 09B-12B; Task 7.2 Open air construction works in the plain of S. Jean De Maurienne TELT CO 09C; Task 7.3 Realization of the Arc Bridge CO 09E
The following construction works are foreseen:

- Works for the adaptation of the railway infrastructure of the new line but also of the historic line, in St. Jean the Maurienne, including the construction of technical areas for trains and locos waiting to entry into the tunnel and the construction of the Multimodal Exchange Centre.
- The construction of railway buildings and facilities supporting the overall railway traffic;
- The adaptation of the streets around the new railway line;
- A new bridge on the Arc River after the exit of the tunnel:

Technical progress future GA –January 2024	0%
Expected technical progress future GA – [redacted]	100%
Technical progress within the Alpine Crossing project horizon 2018-[redacted] –January 2024	26%
Expected technical progress within the Alpine Crossing project horizon 2018-[redacted] – [redacted]	63%



Maturity

Task 7.1 Open air construction works in the plain of S. Jean De Maurienne [redacted] CO 09B-12B: works are currently ongoing under the responsibility of [redacted]. They started in 2018 and they will continue until the final completion of the project.
During the period [redacted], the following phases will be included, as stipulated in the agreement with SNCF:

- Phase 2: completion with respect to activities initiated in the current grant (this phase consists mainly of creating the platform for the future new line within the Saint Jean de Maurienne Plain, to temporary relocate the historical line on this new platform)
- Phase 3: Starting in [redacted] (the objectives of this phase 3 are to re-establish the [redacted] plant service road in a definitive situation and move the RD1006 to allow the start of work on the creation of the platform of the historic line)
- Phase 4: Starting in [redacted] (Phase 4 consists mainly of creating the new platform for the historic line)

Task 7.2 Open air construction works in the plain of S. Jean De Maurienne TELT CO 09C: works are ongoing. TELT foresees an interruption of the works for the period [redacted] as construction works will be realized on the basis of functional phases depending on the actual overall completion rate.
Task 7.3 Realization of the Arc Bridge CO 09E: all the design studies have been completed and the tender notice for the works has already been published. The bridge is scheduled to be commissioned at the [redacted], to allow the equipment train to enter the tunnel

Investment costs	**355.081.015 €**
CEF Requested co-funding	**177.540.508 €**

Work Package 8 –Management of the excavated materials in Italy CO 10.

Objectives

This Work Package includes all the activities related to the Operating Construction Site 10 and consists in the management of excavated materials produced during the construction of the cross-border section on the Italian side. The management strategy of excavated materials is intended to reduce negative impacts of transports by reducing, as much as possible the externalities produced. Overall, around 37 million tons of rocks are expected to be extracted from the works on the cross-border section.
More specifically the excavated material of the Italian Operating Construction Sites will be selected, and its destination will be decided. In fact, part of the material will be transported by trucks in the industrial site, under construction, of Salbertrand for its conversion in technical material to be used for

the construction of the tunnel. We estimate that approximately the 60% of the excavated material will be reused to produce tunnel lining segments or other structures of the base tunnel. This process will take place directly in Salbertrand where all the industrial processes to produce the structural elements for the construction of the overall base tunnel will be located. The remaining share of excavated material, unusable for the construction of the tunnel, will be transported via rail to the sites of Torrazze and Caprie in Piedmont where it will be processed for further uses and re-naturalization purposes. Potentially dangerous green rocks (such as asbestos) are going to be stored directly inside the tunnel. A binational agreement is going to be signed to manage and transport the excavated materials across the national borders, to reuse them for the construction of the Turin-Lyon cross-border section. One main Task is envisaged for this Work Package: Task 8.1 Management of the excavated materials in Italy CO 10.

Technical progress future GA –January 2024	0%
Expected technical progress future GA – [redacted]	100%
Technical progress within the Alpine Crossing project horizon 2018-[redacted] –January 2024	1%
Expected technical progress within the Alpine Crossing project horizon 2018-[redacted] – [redacted]	59%

Maturity
Task 8.1 Management of the excavated materials in Italy CO 10: works are ongoing and temporary storage sites as well as the industrial facility of Salbertand are under preparation.

Investment costs	**249.662.024 €**
CEF Requested co-funding	**124.831.012 €**

Work Package 9 –Management of the excavated materials in France CO 11.

Objectives
This Work Package includes all the activities related to the Operating Construction Site 11 and consists in the management of excavated materials produced during the construction of the cross-border section on the French side. Overall, around 37 million tons of rocks are expected to be extracted from the works on the cross-border section. On the French side, for all the Operating Construction Sites, three main types of sites for the management of the excavated materials are foreseen: sites for the material treatment, sites for the temporary storage and sites for the final deposit. The final deposit is located in Plan d'Arc, Les Resses and Les Tierces. Temporary storage sites are in Illaz, Plan d'Arc, Les Tierces, Les Epines. The treatment of the material takes place in Illaz and Le Moulin (eastern sector of the Villarodin-Bourget/Modane platform). The tunnel lining segments, and the other structures of the base tunnel will be realized in La Chapelle. Dangerous green rocks are going to be stored directly inside the tunnel. The infrastructures necessary for the transit and evacuation of materials foresees road infrastructure including the Modane ring road connected with the A43 motorway and the railway infrastructure, to allow the transportation of the materials from all the outdoor and underground construction sites (La Praz, S. Martin La Porte, Modane, S. Jean Mont Denis, S. J. de Maurienne plain). A binational agreement was signed to manage and transport the excavated materials across the national borders, to reuse them for the construction of the Turin-Lyon cross-border section. One main Task is envisaged for this Work Package: Task 9.1 Management of the excavated materials in France CO 11

Technical progress future GA –January 2024	0%
Expected technical progress future GA – [redacted]	100%
Technical progress within the Alpine Crossing project horizon 2018-[redacted] –January 2024	3%
Expected technical progress within the Alpine Crossing project horizon 2018-[redacted] – [redacted]	47%

Maturity
Task 9.1 Management of the excavated materials in France CO 11: works are ongoing and temporary storage sites have been identified and they are already in use. The adaptation of the road infrastructure of Modane is ongoing.

Investment costs	**359.353.761 €**
CEF Requested co-funding	**179.676.880 €**

Work Package 10 –General costs and Prescriptions CO 00 & CO 00P

Objectives	
This Work Package includes all the activities related to the Operating Construction Site 00 and 00P. It covers all the general construction works of minor entity that will be carried out along the overall construction site, such as surveys, archaeological activities, environmental monitoring and the costs for the environmental and civil prescriptions according to the outcomes of the permitting phase. These environmental and civil prescription concern specific environmental actions in Italy and France such as vegetation clearing, preventive archelogy interventions, compensatory measures for wildlife, flora or human activities. One main Task is envisaged for this Work Package: Task 10.1 CO 00 - General & CO 00P Prescriptions.	
Technical progress future GA –January 2024	0%
Expected technical progress future GA – [redacted]	100%
Technical progress within the Alpine Crossing project horizon 2018-[redacted] –January 2024	8%
Expected technical progress within the Alpine Crossing project horizon 2018-[redacted] –[redacted]	60%
Maturity	
Task 10.1 CO 00 - General & CO 00P Prescriptions: all the activities are ongoing.	
Investment costs	**53.580.367 €**
CEF Requested co-funding	**26.790.184 €**

Work Package 11 – Horizontal Activities

Objectives	
This Work Package includes all the Horizontal activities necessary for the implementation of the project: engineering, insurances, interferences. More precisely it covers all the engineering functional studies related to transport, traffic, security and the engineering activities related to the construction. In addition, it includes all the works linked to agreements with public utility owners to deviate those utilities whose alignment is interfering with the open-air works in France and in Italy: electricity lines, gas pipes, water, drains, telecommunications, optic fiber. Insurances related to the project are also included (such as for buildings, vehicles, and personnel) Three Tasks are envisaged for this Work Package: Task 11.1 Insurance, Task 11.2 Engineering and construction supervision, Task 11.3 Resolution of the interferences.	
Technical progress future GA –January 2024	0%
Expected technical progress future GA – [redacted]	100%
Technical progress within the Alpine Crossing project horizon 2018-[redacted] –January 2024	28%
Expected technical progress within the Alpine Crossing project horizon 2018-[redacted] –[redacted]	70%
Maturity	
Task 11.1 Insurance, Task 11.2 Engineering and construction supervision. Costs are traceable to annuities, based on invoicing. Task 11.3 Resolution of the interferences: all the activities are ongoing. For the period [redacted] it is planned to sign agreements for the resolution of the following major interferences: Italy: [redacted] France: [redacted] and [redacted]	
Investment costs	**411.079.680 €**
CEF Requested co-funding	**205.539.840 €**

Work Package 12 – Project Management and Administrative activities

Objectives
This Work Package includes all the activities related to Project Management and Administrative activities. This Work Package covers all the costs for Human resources, rental of TELT main offices in Torino and Le Bourget du Lac, vehicles, furniture, office supplies, IT systems, consultancy and regulatory controls, communication including the management of Modane information point.

One Task is envisaged for this Work Package: Task 12.1 Project Management and Administrative activities. The Task includes all the project management activities, including the coordination activities with Associated Partners, namely the French Ministry and the Italian Ministry for Infrastructure and Transport (MIT), necessary for the implementation of the project in line with the Grant agreement. The task will ensure the coherence of the implementation of the project as per the Grant Agreement with the TELT annual works plan.	
Technical progress future GA –January 2024	0%
Expected technical progress future GA – [redacted]	100%
Technical progress within the Alpine Crossing project horizon 2018-[redacted] –January 2024	25%
Expected technical progress within the Alpine Crossing project horizon 2018-[redacted] – [redacted]	62%
Maturity	
Task 12.1 Project Management and Administrative activities: all the activities for a proper management of the project are ongoing. The budget for this task will start from March 2024 without overlapping the Grant Agreement in force.	
Investment costs	**289.266.794 €**
CEF Requested co-funding	**144.633.397 €**

5- Expected outcomes and result

During the works and at the end of the project, the progress and final results will be monitored using some key (core) indicators useful to express the completeness and effectiveness of the proposed initiative. Indicators of physical implementation will aim to provide a measure of the implementation of the project from the point of view of the infrastructure built. We propose the following physical implementation indicators:

- Technical progress of the construction works by [redacted]: 23%
- Technical progress of the construction works by [redacted]: 48%
- Technical progress of the construction works by [redacted]: 75%
- Technical progress of the construction works by [redacted]: 100%

Moreover, the detail of the technical Progress of the main activities by [redacted]:

- **CO 01 – Interconnection of Bussoleno:** the excavation with traditional method will start;
- **CO 02 – Civil works in Susa plain:** the works in the Susa plain will be in full capacity;
- **CO 03-04 – Base Tunnel Maddalena-Susa:** La Maddalena 2 will be completed, the excavation fo the base tunnel will be in full capacity and New A32 interchange of Chiomonte completed;
- **CO 05 – Base Tunnel Modane-Maddalena**: the TMBs will excavate in full capacity and the 2 Avriuex Shafts will be completed:
- **CO 06-07 – Base Tunnel La Praz-Modane-S. Martin La Porte:** the base tunnel is expected to be completed in this segment;
- **CO 08 – Base Tunnel S. Julien Mont Denis-S. Martine La Porte:** the excavation with traditional method of the base tunnel is expected to be completed;
- **CO 09 – S. Jean de Maurienne works:** the construction of the Arc bridge will be completed.

The technical progress of the construction works has been calculated only considering the eligible costs, not taking into account all the global project and the not-eligible activities (CEF Perimeter). Please consider that the technical progress is based on the financial expenditures expected for this project. In fact, the financial statement reflects the physical implementation (invoices are issued considering the cumulative progress of the construction works). For these reasons, at this stage of the project preparation, we consider the budgetary instalments more adequate to monitor the progress of the works.

Cost of the project

The following table presents the investment costs related to proposed project. The table also means to clarify the differences of the investment costs of the Alpine Crossing used for the preparation of the Application, and those used for the Cost Benefit Analysis (CBA).

The relevant figures are those highlighted in green: for the proposal's budget, updated costs are considered, in current values, only for the eligible activities included in this Application (timerange[redacted]

[redacted] within the CBA, instead, for the Alpine Crossing we consider the total certified costs, converted in €2023 values and covering the complete time range of its realisation (2018-[redacted]

CAPEX		Certified costs		Updated costs	Updated cost (eligible for CEF)
		€2012	€2023	€current	€current
[redacted]	TELT (Alpine crossing)	3,761,577,930	4,713,257,146	5,903,502,797	5,277,774,702
[redacted]	TELT (Alpine crossing)	7,259,699,040	9,096,402,897		
2018-[redacted]	TELT (Alpine crossing)	8,609,700,000	10,787,954,100		

* after the schedule of the updated cost

Used for the CBA

Used for the project's budget

To recap:

- €2012: the investment costs were initially certified in 2012 values.
- €2023: the values to be used for the CBA; they have been converted from €2012 by applying the NLTL index of costs (NB: an average index over the January to October period is used for 2023 where the whole year values are not available)
- €current: these values are needed for the calculation of the project budget and eligible cost.
- The value of € 5,277,774,702 is used for the preparation of the project budget, which includes only eligible costs.

The value of € 10,787,954,100 has been used in the CBA Appraisal as the cost of the Alpine Crossing (NB: further to this investment, the CBA also considers the costs for the national accesses as it evaluates the global project – see the following box and the CBA Report for more details).

Global projects

If the project is part of a global project (including projects of common interest (PCI), if applicable), provide the following information:

- *Objectives of the global project*
- *General description and context — specify how the project fits into the global project*
- *Justification — problems, needs and issues addressed by the global project*
- *State of play, results and objectives achieved by the global project so far*
- *Parallel projects — describe which other parts of the global project are to be implemented in parallel and their links to the project*
- *Timetable — describe the timetable of the global project and the interdependence with the timetable of the project; explain how the project will impact the progress of other activities which are part of the global project.*

Objectives of the Global Project

This project relates to the cross-border section of the New Turin-Lyon Line, which represents part of the global project of this application. In fact, as mentioned, the global project is represented by **the New Turin-Lyon line in its entirety**. The new rail line constitutes a major element of the local, national and European transportation system, ensuring significant improvements in the transit times of passenger and cargo rail services, improving accessibility and limiting the environmental impact, the accident rates and the congestion of the valleys by road traffic. The Turin-Lyon is an essential part of the Mediterranean Corridor, being one of the 9 railway axes that belongs to the European TEN-T network. It will guarantee a connection, south of the Alps, between Western and Central Eastern Europe aiming to promote economic exchanges and strengthen the competitiveness of Mediterranean European Countries while being a freight and passenger railway network, which also intersects with the most important sea and river ports, major cities and airports. The global project includes the following elements:

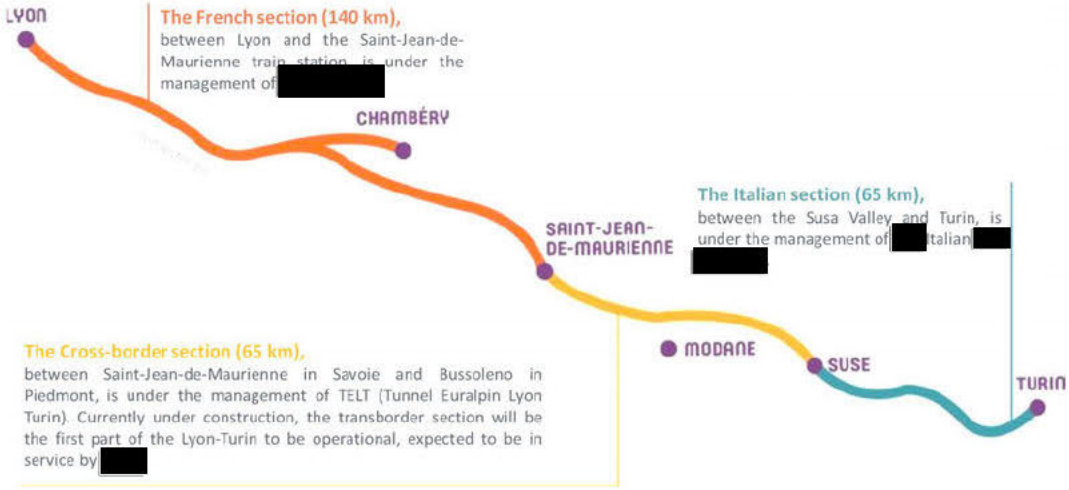
- Alpine accesses - Italian side (including: connection to Turin, upgrade and doubling Bussoleno-Avigliana 1st and 2nd phase)
- Alpine crossing - TELT (including: preliminary and exploratory works, and realization of the base tunnel)
- [redacted]

The base tunnel, as part of the cross-border section, is currently at an advanced state of construction with co-financing from Italy, France, Europe, [redacted] and [redacted] (respectively, French and Italian [redacted]

Managers)[2]. As shown in the previous box, the overall cost of the Alpine Crossing in the period 2018-[redacted] is estimated in 10.787 M€2023. In particular, the European Commission is funding the realization of the cross-border tunnel (Mont Cenis base tunnel) through the TEN-T and CEF funding programmes (on-going Action "2014-EU-TM-0401-M-Cross Border Section of the New Turin-Lyon Rail Link Mont Cenis base tunnel (TBM)". Indicatively, forty percent (40%) of the cross-border section of the Turin-Lyon railway line is financed by the European Union and within the scope of the CEF-Connecting Europe Facility, in 2015 Italy and France signed the Grant Agreement, which provides for a European contribution of 41,08%, equal to 813,8 million EUR.
The historical relevance of this project is particularly significant and remarkable as the ambition to cross the Alps dates from centuries ago. Therefore, more than 150 years after the inauguration of the Fréjus railway tunnel (1871), where the current historical line passes, this project is a turning point to comply with current transport standards. The historic communication line constitutes a project that continues to be present during centuries and decades sharing the same visions and goals concentrated to linking the mountain to the future of the whole continent. However, today Fréjus tunnel is not suitable for modern high performing rail transport services and the growth of freight rail traffic between Italy and France on this line is hampered. This constitutes a result of the non-competitive rail transport, because of the incompliance of historic line with international transport standards that increases energy consumption and does not allow higher speeds and efficiency on transportation.

General description and context
The line is part of the TEN-T Trans-European conventional rail network within its "Mediterranean Corridor"—previously "Corridor 6". The Trans-European Transport Network (the acronym, TEN-T, is for Trans-European Networks – Transport), is a set of integrated transport infrastructures designed to support the single market, assure the free movement of freight and people, and strengthen the growth, employment and competitiveness of the European Union.
As anticipated, the fundamental element of the new line is the tunnel at the base of Moncenisio being the core of the project, called 'Mont Cenis base tunnel', which will cross the Alps between the Susa Valley in Piedmont and Maurienne in Savoie.
As indicated in the 2012 binational French-Italian Treaty, the New Turin-Lyon Rail Link (NLTL) is divided into three sections constructed under separate managements:

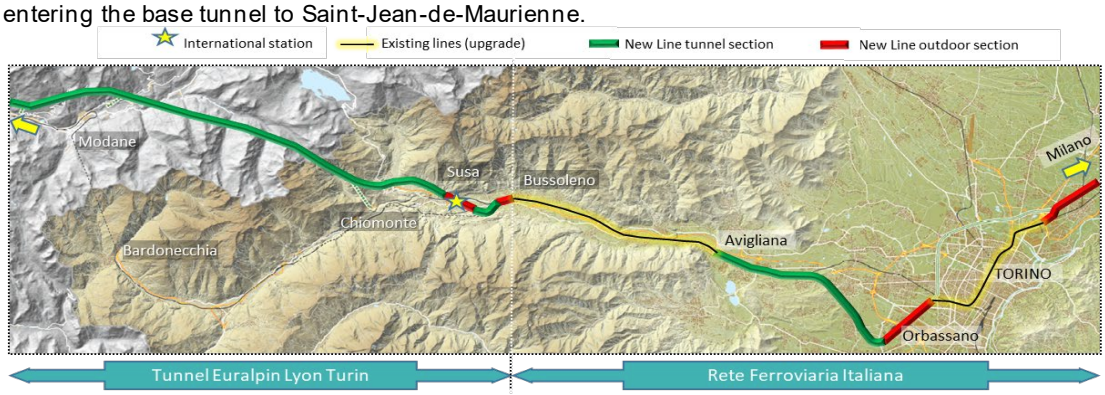
- the International common cross-border section between Italy and France, from Susa (Piedmont) to Saint-Jean-de-Maurienne (Savoy), under the responsibility of the Italian-French public promoter TELT, whose main project is the Moncenisio base tunnel measuring 57.5 km, currently under construction.
- the Italian section between Bussoleno (Susa valley) and Torino, under the responsibility of [redacted]
- the French section between Saint-Jean-de-Maurienne to Lyon that will be built under the responsibility of [redacted] (now [redacted]).



The construction and operation of this line is part of a framework that goes beyond national borders and justifies greater solidarity, that of the Alpine Convention, signed by eight States of the Alpine arc and ratified by the European Union. The objective of the Alpine Convention is to promote the innated development of these areas, avoiding that congestion or unwanted traffic shifts and that of European solidarity

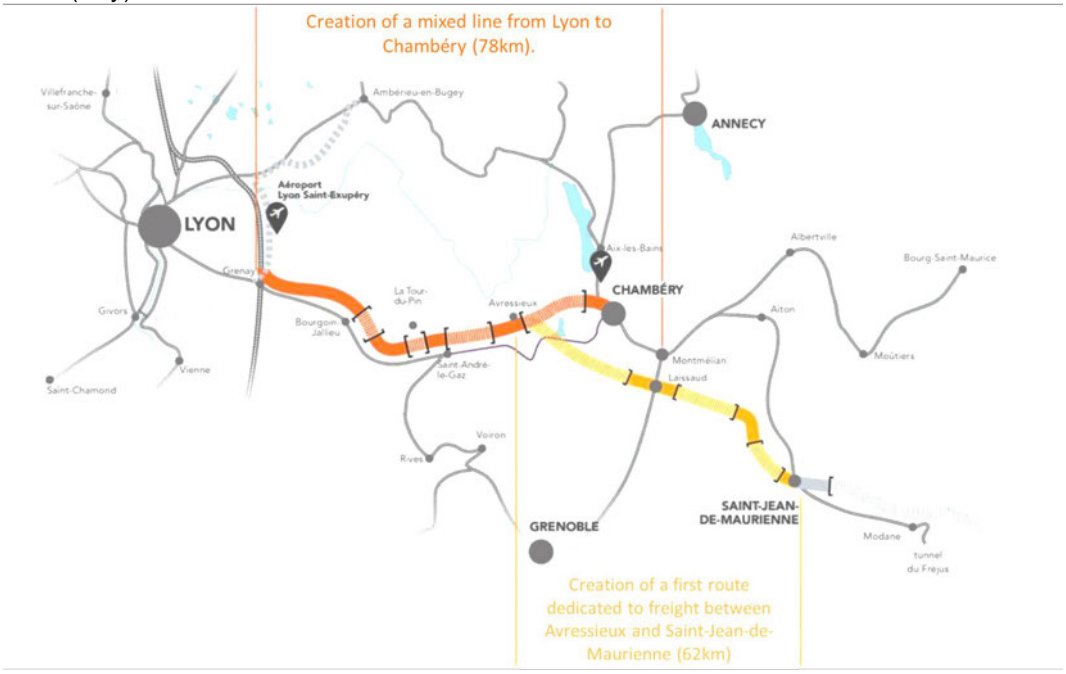
[2] More details on the access lines and the Global Project structure are included in the CBA Report

since the new transalpine links should be beneficial to the whole of the European Community and not only to the States directly concerned.
The global project foresees that the new line in Italy will be connected to the historic one in Bussoleno after the realization of the interconnecting tunnel foreseen in the WP1. The railway line of Modane/Susa will be connected to Turin through the connection between the stations of Bussoleno and Avigliana and finally linked with Turin through the Orbassano station. The realization of the access line is defined in phases according to the treaty of 2012 between Italian and French Governments and in its final layout includes additional tunnels connecting the entrance of the base tunnel in Susa with Turin. After passing the Dora, the route crosses the plain of Susa, where the new international station will be built, before entering the base tunnel to Saint-Jean-de-Maurienne.



Global overview of the Cross-Border and the Italian phase 1.a

At the end of the 57.5 km tunnel, in French territory, the line will connect to the existing one at the northwest end of the plain of Saint-Jean de Maurienne. From here, the line will be connected to Lyon through a series of tunnels and open air sections passing by Montmélian, Saint-Didier-de-la-Tour, Bourgoin-Jallieu. In addition, an interconnection with Chambery is foreseen through the Dullin-L'Élpine Tunnel.
Finally, in general, the French-Italian common part goes from Montemélian (France) to Chiusa San Michele (Italy).



Global overview of the French access line

As anticipated, the realization of this project as part of the Global Project is the result of several international Treaties:

- The French-Italian Agreement of 15.1.1996 which established an Intergovernmental Commission (IGC)
- A French -Italian Agreement was signed on January 29, 2001, in Turin which became Treaty after its ratification by the Parliaments of the 2 Countries, on February 28, 2002, in France and on September 27, 2002, in Italy. This agreement focused on the construction of the works of the common Franco-Italian part, necessary for the construction of a new transalpine rail link between Lyon and Turin for goods and passengers.

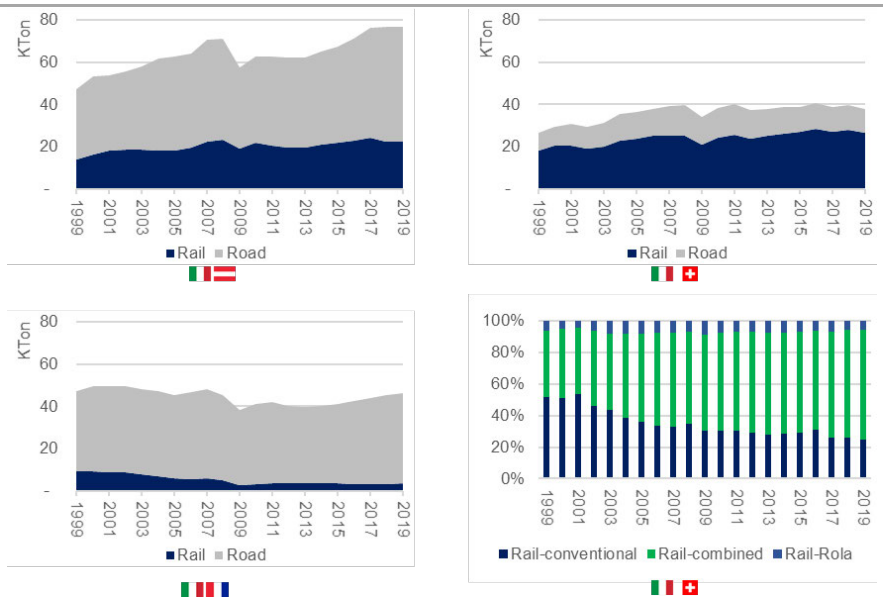
- A French -Italian Agreement was signed on January 30, 2012 in Rome whereby the Government of the French Republic and the Government of the Italian Republic decided the construction of a new Lyon - Turin railway line which became a Treaty after its ratification by the Parliaments of the 2 Countries, on December 2, 2013 in France and on April 23, 2014 in Italy. For the subsequent phases of the cross-border section, the art. 16 of the 2012 International Agreement provides that each Party finances, with the help of the European Union, the infrastructures located on its territory that are needed to access to the cross-border tunnel.
- An Agreement was signed on 24 February 2015 in Paris whereby the Government of the French Republic and the Government of the Italian Republic decide to start the final works of the cross-border section and to entrust the construction to the Promoter called Tunnel Euralpin Lyon Turin.

Among the treaties that have been assigned and ratified by both Italian and French governments, a series of summits have been assigned and conducted between the two states to tackle the strategic issues of common interests, examine matters of financing and to overcome any difficulties that may be arisen. However, these protocols and summits are complementary to the International Agreements underlining the global characteristics of this project and enhancing bilateral cooperation.
In conclusion, the planning of the interventions and the consequent works for the adaptation of the Turin Lyon railway axis to European standards is the result of agreements, comparisons, analyses, discussions, studies and insights, continuously reconsidered, re-evaluated, revised and updated. In this framework a very relevant activity has been carried out by Turin-Lyon Observatory. Thanks to the work of the Observatory, between the end of 2016 and the beginning of 2017, the Italian and French Parliaments ratified the agreement, allowing the final works to start.

Justification
The Fréjus tunnel is the oldest railway tunnel in Europe, and it is still used today by passengers and freight trains running between Italy and France. However, the competitivity and safety of this infrastructure, compared to the highway, has gradually decreased; in fact, the average daily capacity of the tunnel is only 60 trains per day. The 13.7 km tunnel was inaugurated in 1871. The historic tunnel was built by 4,000 workers using pneumatic drills and technologies developed for the occasion, which enabled it to be built in less than 14 years, compared to the 40 needed with traditional excavation methods.
The new tunnel is being built 800 metres lower, to enable trains to travel at the same altitude as the plain. The average daily capacity of the Fréjus railway tunnel is just 60 trains per day. This figure was confirmed by [redacted].
The main goal of New Turin-Lyon Rail Link (NLTL) is to create a new rail infrastructure with optimal safety, technological and operational characteristics both for passenger and freight traffic and to:

- Remove a bottleneck along a cross-border section,
- Fill a missing link along transalpine and European traffic,
- Contribute to EU sustainable development objectives of reducing the levels of greenhouses gases and improving energy efficiency,
- Promoting transport efficiency: the flat route will shorten travelling time and reduce operating costs between St. Jean de Maurienne and Susa by around 40% with like flat land railways (eliminating booster locomotives for heavy freight trains)
- Shifting from road to rail the crossing of the Alps via the Mediterranean Corridor, optimizing the transport routes.
- Create a more favourable environment for private, public, or private-public partnership investments.

The following graphs are showing how rail freight traffic is the first transport mode among the most advanced routes in terms of infrastructure's characteristics, in particular in Switzerland (Simplon and Gothard), where transalpine combined rail traffic represents the majority of the volumes transported. On the contrary, freight traffic transported via rail between Italy and France is progressively decreasing due to the low performances of the infrastructures (Modane and Ventimiglia). Road transport is still representing the most exploited alternative between Italy and France but also between Italy and Austria, requiring relevant investments (new Turin-Lyon and new Brenner base tunnels) for boosting the modal shift towards rail.



Transport dynamics along the Alpine Arch – freight transport

Source: Bundesamt für Verkehr (BAV), Ufficio Federale dei Trasporti. Includes Ventimiglia, Montgenèvre, Mont Cenis, Fréjus, Mont Blanc, Gd St-Bernard, Simplon, Gothard, San Bernardino, Brenner, Tauern

In general, cross-border projects are those that give the greatest benefit to the European economy, with three times higher than the average of the nine TEN- T corridors. France and Italy are the second and third economies of the European Union and respectively the second commercial partner of one another. The economic exchange involves over 44 million tons of goods per year, mainly transported by road (92% travels on lorries) and represents a total of € 81 billion (Source: ISTAT 2021), almost twice the trade of France with China. The project aims at making the railway more competitive for the transport of freights and passengers, and to increase connectivity between Italy and the European railway networks.
It aims to rebalance in terms of economy and transport the European area, considerably strengthening ties, between Italy and France. Particularly, the line intends to improve intra-European exchanges by contributing to the geographical rebalancing of the Union decreasing at the same time the congestion of the other communication channels, such as Ventimiglia, which penalizes the competitiveness of the European Union.
The economic trade between Italy and France is worth over 85 billion euros (2019 figures) while, if we consider the volume between Italy and the Western European quadrant, it rises to about 150 billion euros. This trade rises still more to 204 billion if we consider also the other countries that could potentially gravitate around the Turin-Lyon line (Portugal, Belgium and the Netherlands). In addition, over 44 million tons of freight circulates along the Italy-France axis. Of this traffic, over 90% travels by road, compared to 70% in Austria and 30% in Switzerland.
Every year almost 44 million tons of goods cross the Western Alps and currently more than 90% travel by road. It is estimated that at least half of these goods will be able to use the new Turin-Lyon line: converting the mountain line into a lowland railway will save 40% of energy, making rail transport more competitive, with considerable benefit for the environment.
Without the modern base tunnel and high-capacity access routes, the traffic flow across the Alpine border will be confined to road transport affecting this sensitive area, causing unnecessary congestion on other routes and creating additional costs.

State of play, results and objectives achieved by the global project so far

As mentioned, the global project is represented by the overall New Turin-Lyon line project. This has been a long and complex initiative, which, besides the cross-border section of the new line, also includes the realisation of a number of projects on the two national sides. Overall, the following main components of the global project can be defined:
- the Italian section, under the management of [redacted] ([redacted]) between Bussoleno and Turin;
- the French section under the management of [redacted], between Lyon and Saint-Jean-de-Maurienne;
- and the cross-border section, under the management of TELT, between Saint-Jean-de-Maurienne and Bussoleno/Susa.
The first two components are not included in the present Action, which focuses on the cross-border section. Besides, it is worth highlighting that, in the cross-border section itself, some investments have already been completed (artificial tunnel S. Jean de Maurienne Plain CO 09A; Dams of [redacted]-Villargondran CO 09D; Maddalena interconnecting Niches 04A) and other interventions are not included

in the present proposal, in that they are covered by another Grant (2014-EU-TM-0401-M); furthermore, this proposal does not include cost elements of the Alpine Crossing that, while necessary for the completion of the works, are not eligible under CEF rules: expropriations, accompanying measures, and investments on the historical line. Finally, railway technological intallations that will start once the base tunnel is completed are outside the timeframe of this application.

During the possible GA negotiation of the present Action and during the course of the project, TELT will carefully respect the rules foreseen by European regulation about the Double Financing (Regulation EU 2021/1153, Art. 19).

The progress of the global project mainly reflects a significant advancement on the Alpine crossing. Currently, there are 10 active construction sites in Italy and France. Approximately 34 km, constituting around 21% of the envisaged 162 km of tunnels, have been excavated for this complex project, which includes two parallel tunnels, 4 adits (exploratory tunnels), and 204 safety bypasses. Furthermore, 113 km of geognostic surveys and core drillings have been completed in both Italy and France. Notably, 12 km of the base tunnel have been successfully excavated. Among the completed works, a pivotal achievement is the realization of 10.5 km of the base tunnel between Saint-Martin-la-Porte and La Praz. Of this, 9 km were excavated using the TBM, while the remaining 1.5 km were finished using traditional methods. In Saint-Julien-Montdenis, the works on the covered trench, the artificial gallery serving as the entrance to the base tunnel, have been completed. Additionally, the new temporary multimodal hub in Saint-Jean-de-Maurienne has been realized as a preliminary activities in the light of the future construction of the international station.The reinforcement works along the Arc River in Villargondran, vital for protecting Saint-Jean-de-Maurienne from flood risks and preparing the platform for future railway and technical infrastructures, were completed. Simultaneously, activities at the Resses d'en Bas logistics site along the Arc River prepared it to accommodate part of the excavation material management site for the base tunnel. In France, the construction of descent points crucial for initiating mountain sites has been completed in Villarodin-Bourget/Modane (4,000 m, completed in 2007), La Praz (2,480 m, completed in 2009), and Saint-Martin-la-Porte (2,400 m completed in 2010 and 1,800 m completed in 2016). In Italy, the geognostic tunnel in Chiomonte (Val di Susa, 7,020 m) has been successfully completed. Overall, the realization of this infrastructure involves over 2,000 employees, including those actively engaged in construction sites, services, and engineering. The project has achieved notable milestones in tunnel excavation, infrastructure completion, and logistical preparations, showcasing substantial progress in its overall implementation.

1. PRIORITY AND URGENCY

1.1 TEN-T network — Project of common interest (PCI)

TEN-T network — Project of common interest (PCI)

Explain why the project is considered a project of common interest (PCI) within the meaning of Article 7 of the TEN-T Guidelines and how it contributes or links to the core and/or comprehensive network.

Does it contribute to realising corridor work plans and implementing acts pursuant to Article 47 of the TEN-T Guidelines?

Does the project (or global project) produce a network effect by linking with or complementing other TEN-T/CEF actions?.

⚠ *Don't forget to also encode this information in the Application Form Part A in the General information section.*

Project of common interest and Cross-border link

The Project addresses main priorities of the EU Regulation 1153/2021 which establishes the Connecting Europe Facility and repeals Regulations (EU) No 1316/2013 and (EU) No 283/2014.

In the Annex, Part III of the Regulation the section object of the current Proposal is defined as a **cross-border link within the section "Lyon – Torino: base tunnel and access routes".** More in detail, the Regulation states that a "cross border link means, in the transport sector, **a project of common interest** which ensures the continuity of the TEN-T between Member States.

Thus, the Project intends to achieve the TEN-T Guidelines objectives which gives priority to cross-border connections and facilitates their realization.

Moreover, cross-border sections are used as key indicators for the TEN-T Network development. In fact, the CEF will be monitored closely based on a set of indicators intended to measure the extent to which the general and specific objectives of the CEF have been achieved. Data will be collected as regards the set of key indicators and the pre-identified cross-border links are part of these indicators.

The Project represents one of the most relevant axes of the Mediterranean Core Network Corridor (MED CNC) which is one of the most interconnected in Europe, since it is crossed by other six corridors (Atlantic, North Sea – Mediterranean, Rhine – Danube, Rhine – Alpine, Orient / East - Mediterranean, Scandinavian-Mediterranean and Baltic-Adriatic).

Its main branches are (Reg. (EU) 1153/2021):

Algeciras – Bobadilla – Madrid – Zaragoza - Tarragona

Madrid – Valencia – Sagunto – Teruel – Zaragoza

Cartagena – Murcia – Valencia – Tarragona/Palma de Mallorca – Barcelona

Sevilla – Bobadilla - Murcia

Tarragona – Barcelona – Perpignan – Narbonne - Toulouse/Marseille – **Genova/Lyon – La Spezia/Torino** – Novara – Milano – Bologna/Verona – Padova – Venezia – Ravenna/Trieste/Koper – Ljubljana – Budapest.

Ljubljana/Rijeka – Zagreb – Budapest – UA border.

As a result of the CEF II Regulation, the Mediterranean Corridor was extended in Spain, France and Italy, reaching the total length of 11.410 km.

The new railway link Turin-Lyon with its 57.5 km base tunnel is considered as" **the main project of the whole Mediterranean Corridor"** and highly strategic, because this missing link hampers the transport relations between Italy and France, Italy and Spain, and Spain and central and eastern European countries. This calls for further efforts to complete the Turin-Lyon international cross-border section on time and "to plan and build adequate access lines" since the completion of the access lines to the base tunnel is necessary for the proper functioning of the whole section, as it is recalled also in the recommendations and future outlook of the European coordinator.

Alignment of Mediterranean Corridor under revised CEF Regulation 1153/2021

2- New Proposal on TEN-T Guidelines

The current Project is coherent with the objectives of **the Proposal COM (2021) 812** final launched on 14th December 2021 for a Regulation on Union guidelines for the development of the trans-European transport network, amending Regulation (EU) 2021/1153 and Regulation (EU) No 913/2010 and repealing Regulation (EU) 1315/2013.

This legislative proposal is a key action of the European Green Deal and the Sustainable and Smart Mobility Strategy. The aim of the TEN-T Regulation is to build an effective EU-wide and multimodal network of rail, inland waterways, short sea shipping routes and roads which are linked to urban nodes, maritime and inland ports, airports, and terminals across the EU. The TEN-T Network is crucial to the functioning of the internal market as it ensures efficient transport of goods and passengers. In order to be greener, more efficient, and more resilient, the Network must meet the following objectives:

1) Sustainability: Reduce congestion, transport emissions and impact on climate change.
2) Cohesion: Connect EU cities and regions, including rural areas and remote regions.
3) Efficiency: Remove bottlenecks and gaps on the transport network.
4) Increase user benefits: better transport services to citizens and freight customers.

The current Proposal can be identified as "Project of common interest to develop the trans-European transport network" in line with the requirements set out in the new Regulation Proposal since it has European added value, as contributes to a high-quality, interoperable, and multimodal European network, increasing sustainability, cohesion, efficiency or user benefits.

The current Project has also a higher European added value because it leads, in addition to the potential value for the respective Member State alone, to significant improvements of transport connections or transport flows between Member States (Italy – France). Such cross-border projects are subject of priority intervention by the Union in order to ensure that they are implemented.

Moreover, cross-border sections are at the heart of the development of the European Transport Corridors in view of developing a fully interoperable rail freight system as well as a long-distance rail passenger network at high speed across the Union.

In order to ensure the implementation of the cross-border section, the new Regulation envisages a role for the European Coordinators that, with the agreement of the Member States concerned, may set up and chair corridor working groups which focus on the coordinated development and implementation of infrastructure projects in cross-border sections and cross-border passenger rail services.

3- Network effect

In the previous programming periods, other relevant Projects have been co-funded under TEN-T and CEF Transport Programme for the completion of the New Torino-Lyon Line.
Under the CEF 2014 – 20 and CEF 2021 – 27 the following have been funded and still ongoing:

Programme	Project	Beneficiary	Grant Amount *(Euro)*
CEF Transport 2014 – 20	2014-EU-TM-0401-M "Cross Border Section of the New Turin-Lyon Rail Link Mont Cenis base tunnel (TBM)"	TELT SAS	813.781.900 €
CEF Transport 2014 – 20	2019-FR-TM-0255-S Studies into phasing for the realization of the French accesses to the Lyon-Turin tunnel	[redacted]	2.000.000 €
CEF Transport 2021 – 27	21-IT-TG-PFD-AviO "Turin-Lyon base tunnel Access	[redacted]	9.888.000 €
CEF Transport 2021-27	22-EU-TG-RE-AVIBUS-TELT-2	TELT SAS	44.500.000 €

1.2 Call objectives and priorities

Call objectives and priorities

Explain how the project contributes to the objectives, priorities and expected results of the topic under which it is submitted.

The Project is submitted under the call topic "CEF-T-2023-COREGEN-RAIL-WORKS" and it is definitely consistent with the call's objective since it aims at "developing rail transport infrastructure projects on the Core Network of the TEN-T".
As foreseen by the CEF call's priority the scope of the project is related to the:

- **Upgrading of cross-border and missing links,** the Project is defined as a cross-border link by the CEF Regulation 1153/2021 (Turin-Lyon base tunnel and access routes), and by itself aims at realizing a cross-border section between Turin and Lyon.
- **Capacity and performance upgrade**: the cross-border section will be realized with optimal capacity and performance characteristics, according to the most recent European standards for passengers and cargo rail transport services.
- **Nodes capacity increase**, the Project will boost the connections to the relevant nodes of the line, including better articulation of long-distance and local traffic between relevant urban nodes of the TEN-T Network.

Connections of freight terminals to the TEN-T Network, the Project is improving the capacity of the existing line thus facilitating National and International Freight Rail Transport Services.

1.3 EU added value

EU added value

Explain the effects of the project from the perspective of the EU interest and how it contributes to the objectives set at European level.

The Project demonstrates EU added value according to Article 3(d) of the TEN-T Guidelines as it leads to a significant improvement of transport flows between the Member States, and it contributes to the development of the cross-border connections between France and Italy.
The Project contributes also to the following strategies and objectives set at EU level.

1. The Single European Railway Area

The EU has one of the densest railway networks in the world, however national railway systems across the EU vary. In the 1990s, the process of improving the compatibility of EU member states' national railway systems started with the end goal of developing an efficient and competitive EU-wide railway network - the Single European Railway Area.

In recent years, the EU has adopted four **railway packages which aim to open the railway market to competition, increase the interoperability of national railway systems and define the framework for a Single European Railway Area.** The fourth railway package came into force in 2021.

Increasing the share of rail transport in the EU is an essential objective for decarbonising the economy and achieving the EU's climate goals. **Rail transport is the most sustainable means of transport as it represents only 0.5% of the EU's total greenhouse gas emissions (2017 data).**

In June 2021, the Council adopted conclusions on rail. EU ministers underlined the need to further develop rail transport for both passengers and goods in the EU. They also highlighted the importance to strengthen the resilience of rail in the face of a crisis and to continue investing in interoperability of national systems and stronger connectivity.

2. Decarbonising the transport sector

The EU has pledged to become climate-neutral by 2050. To this end, the transport sector needs to undergo a transformation which will require a 90% reduction in greenhouse gas emissions, while ensuring affordable solutions to citizens. The Fit for 55 package is the EU's plan to deliver on the European Green Deal's climate goals and it includes a set of proposals to revise EU legislation, also in the field of transport.

The COVID-19 pandemic has had a major impact on transport and connectivity in the EU, which in turn has affected the whole EU economy. Sustainable transport is an opportunity to contribute to the recovery and growth of the economy.

3. EU policies for sustainable transport

The EU has long supported the development of EU transport systems, to foster the single market and increase connectivity among Europe’s regions.

EU Institutions are supporting initiatives for boosting rail transport as a clean mean of transport which helps to decarbonise and increase the sustainability of European mobility.

The most relevant initiative is the “European Year of Rail 2021” designated on the basis of a Commission proposal, by the Council and the European Parliament. The Year features events and campaigns across Europe.

In June 2021, the Council adopted conclusions on rail. EU ministers underlined the need to further develop rail transport for both passengers and goods in the EU. They also highlighted the importance of strengthening the resilience of rail in the face of a crisis and of continuing to invest in the interoperability of national systems and in stronger connectivity.

4. Sustainable and Smart Mobility Strategy

The Sustainable and Smart Mobility Strategy - Communication issued by the European Commission in December 2020 – defines the Objectives for the Transport and Mobility Sector in order to meet the goal of 90% reduction of greenhouse gas emissions in transport by 2050.

These objectives will be achieved through:

- Reducing the dependence on fossil fuels - **Scheduled collective travel under 500 km should be carbon neutral by 2030 within the EU**: By 2050, a fully operational, multimodal Trans-European Transport Network for sustainable and smart transport with high-speed connectivity.
- Making alternative choices available – to this end traffic on **high-speed rail will double by 2030 and by 2050 rail freight traffic will double.**

Building a strong and resilient Single Market - Investment in transport infrastructure across the EU Member States.

1.4 Cross-border link

Cross-border link

Is the project related to one of the cross-border links listed in Part III of the Annex to the CEF Regulation read in conjunction with Article 2(h) of the CEF Regulation and Article 3(m) and 3(p) of the TEN-T Guidelines?

Note:

Grants for works addressing a cross-border section may benefit from a higher funding rate (Article 15(2)(a)(i)) of the CEF Regulation). A joint application is strongly recommended, as a demonstration of the good coordination between the partners. Single applicant proposals can be considered as addressing a cross-border section, but need to demonstrate the commitment of all the countries involved.

Continuity of PCI or core network corridor

Is the project located on a section which ensures the continuity of a project of common interest between the nearest urban nodes, on each side of the border of two Member States or between a Member State and a neighbouring country? *or* *Does the project ensure, via a neighbouring country, continuity of a core network corridor between two Member States?*	*YES*

If YES, explain how the project (or part of it) fulfills these conditions. Indicate which Member States/neighbouring countries are concerned and which activities each of them will be carrying out in the framework of the project. Please indicate which core network corridors are addressed (if applicable).

The Project is part of the cross-border links listed in EC Regulation 1153/2021, Annex Part III. In fact, its functionality ensures the continuity of the TEN-T between Member States and the continuity of a project of common interest (the new line Turin-Lyon) between the nearest urban nodes (Lyon and Turin) on both sides of the border of two Member States. As defined in Article 2(h) of the CEF Regulation and of Article 3(m) of the TEN-T Regulation: *"cross-border link" means, in the transport sector, a project of common interest which ensures the continuity of the TEN-T between Member States or between a Member State and a third country.*
This railway stretch will ensure the compliance with the TEN-T infrastructure standards set by the Regulation EU 1315/2013 and will contribute to the improvement of the rail transport operation along the Lyon – Torino axis, which is the central link in the Mediterranean Corridor (on the European east-west axis).

The Turin-Lyon line is part of the development of the European TEN-T networks, and when the line will be fully operational, it is estimated that more than one million lorries will no longer travel across the Alps, reducing CO_2 emissions by three million tonnes per year. The benefits that the project will bring also concern the creation of a greater freight interchange between Italy and France, but also an increase in the number of passenger trains, shorter travel times (e.g. Paris-Milan in four and a half hours instead of about seven hours) and a series of possible origins and destinations on different European routes.

In addition, according to Regulation (EU) No 2021/1153 [CEF 2 Regulation] in Article 15 (2) lit a and e: "the cofinancing rate applicable to projects carried out by integrated management structures (…) may be increased by 5 %" and also the recently approved Work Programme for 2021-[redacted] quotes as follows " 8. Form of Union contributions and co-financing rates - [..] as regards Actions relating to cross-border links, the above specified maximum co[1]financing rates for works (50%) may further be increased by 5 percentage points for projects carried out by integrated management structures, including joint ventures." Based on the established integrated management structure for the Turin Lyon base tunnel's planning and implementation a higher level of co-financing is justified for the proposed project (i.e. up to 55 per cent, corresponding to 2.902.776.085,90 € of EU contribution)

High degree of integration in the planning and implementation

Does your project involve a high degree of integration in the planning and implementation, in accordance with Article 15(2)(e) of the CEF Regulation (for instance through the establishment of a single project company, a joint governance structure, a bilateral legal framework or an implementing act pursuant to Article 47 of the TEN-T Guidelines)?	*YES*

If YES, describe the main elements of this integration and attach appropriate evidence in annex.

The project, also strongly supported by the European Union, is based on five international Treaties (also considering the additional protocol of 2016) between Italy and France stipulated in 1996 with which the

Intergovernmental Commission for the railway axis Turin-Lyon was established), 2001, 2012 and 2015. Between the end of 2016 and the beginning of 2017, the Italian and French Parliaments have ratified the agreement that starts the definitive work.
With this regard it is important to highlight that TELT Tunnel Euralpin Lyon Turin is the public binational promoter responsible for the realization and operation of the cross-border section of the mixed Turin-Lyon freight/passenger railway line. TELT is a French company owned 50% by the French State (via the Ministry of Ecological Transition and Cohesion of Territories) and 50% by the Italian State (via the Ferrovie dello Stato Italiane group). It was founded on 23 February 2015, replacing LTF (Lyon Turin Ferroviaire), owned by the operators of the [redacted] and [redacted], which was responsible for the studies and preliminary works from October 2001 to February 2015.

This project is based on various public consultations both in Italy and France (see the annex Environmental Compliance Form) which ensure an high degree integration in the planning and implementation.

It is important to identify the remaining actions necessary for the full completion of the project, so that European resources can be exploited at the maximum level, in line with respective planning and applicable co-financing rates, together with the available financial resources at national and regional level. **According to the Regulation of the European Parliament and of the Council establishing the Connecting Europe Facility (CEF Regulation), all of the sections of the Lyon-Turin project are eligible for EU funding, (up to maximum 55% for the base tunnel and 50% for access lines).** They must demonstrate a high degree of integration in the planning and implementation of the action and be in line with the article 14 of the CEF Regulation **Financial resources should be, therefore, fully optimised with the maximum efforts of all parties involved.**

Other joint commitments

Such commitments could relate, for example, to a common financial plan or coordinated financial plans, a common timetable for the works, including a coordinated date of opening of service, agreement on coordinated procedures for assessing environmental effects and other similar arrangements.

Have the Member States/neighbouring countries made other joint commitments regarding the project?	YES

If YES, clarify and give details. Attach copies of the related documents (in particular legally binding agreements, if any).

The project, also strongly supported by the European Union, is based on five international Treaties between Italy and France stipulated in 1996 with which the Intergovernmental Commission for the railway axis Turin-Lyon was established), 2001, 2012 and 2015. Between the end of 2016 and the beginning of 2017, the Italian and French Parliaments have ratified the agreement that starts the definitive work.

Attachments

B 1.1 - 1996 France-Italy Treaty
B 1.2 - 2001 Italy-France Treaty
B 1.3 - 2012 Italy-France Treaty
B 1.4 - 2015 Italy-France Treaty
B 1.5 - 2016 Italy-France Treaty Additional Protocol

1.5 Integrated management

Integrated management structure

Is your project a cross-border link project (see section 1.4) which will be carried out by an integrated management structure (including joint ventures, etc), in accordance with Article 15(2)(e) of the CEF Regulation ?	YES

If YES, describe the main elements of this agreement and attach a copy of it in annex.

The Project will be carried out by TELT SAS as sole Applicant.
TELT **Tunnel Euralpin Lyon Turin is the public binational promoter** responsible for the realization and operation of the cross-border section of the mixed Turin-Lyon freight/passenger railway line. TELT is a French company owned 50% by the French State (via the Ministry for the Economy and Finance) and 50% by the Italian State (via the Ferrovie dello Stato Italiane group). It was founded on 23 February 2015, replacing LTF (Lyon Turin Ferroviaire), owned by the operators of the [redacted] and [redacted], which was responsible for the studies and preliminary works from October 2001 to February 2015.

TELT shares the European goal of achieving a new faster and more efficient transport network in recognition also of the global need to reduce pollution. Aware of the fact that the crossing of the Alps represents a crucial node for commercial exchanges and the mobility of people between European nations, TELT is committed to respecting the international agreements and implementing the infrastructure on schedule and in full respect not only of the highest quality standards, but also of the environment and of all legal requirements.
The top management of TELT consists of the President, appointed by the French State, who represents the Company before the stakeholders, and the Executive Director, chosen by the Italian State, who directs and administers it. Both are members of the Board of Directors, with voting rights, alongside with four members appointed by the French government and four appointed by the Italian one. The post of Board Member has a renewable term of six years and is not remunerated. The European Commission may appoint a representative who sits on the board as a non-voting member. At the moment, the [redacted] is [redacted] the [redacted] is [redacted].
According to the International Agreement of 2012 TELT is going to be the Infrastructure Manager during the operating phase of tunnel, managing the new cross-border section and the historic line, including the stations located along the lines.

Attachment:

B 1.0 - TELT Statute

#@COM-PLE-CP@#

1.6 Synergies

Synergies

Describe possible synergies with other CEF sectors (Energy and Digital) or other EU programmes (Resilience and Recovery Facility (RRF), Digital Europe, Horizon Europe, Structural Funds, etc.).

Indicate if the project includes synergetic elements eligible under another CEF sector within the meaning of Article 10(2) of the CEF Regulation (and, if yes, describe the sector and the elements).

Indicate if the project will benefit from funding from another programme (and, if yes, explain which part of the project, which EU programme and provide the project reference of the other programme).

The Project is not benefiting from fundings of other EU programs. However, it is important to be mentioned that this project is complementary to the CEF Transport 2021-[redacted]-Call for Proposals under the project "21-IT-TG-PFD-AviO Turin-Lyon base tunnel Access' and the CEF Transport 2014-20 concerning the project "2014-EU-TM-0401-MCross Border Section of the New Turin-Lyon Rail Link Mont Cenis base tunnel (TBM)". In addition, the current project Turin-Lyon rail link is complementary to an ongoing proposal under the scope of Connecting Europe Facility 2022-Call for Proposals, specifically an application named "SU.P.ER. EU" (Draft proposal ID SEP-210912284) devoted to upgrade various trains to ERTMS Baseline 2. Finally, the Turin-Lyon Project is related to the project '5G Frejus' under the funding of CEF Digital-Call for Proposals 2022, with the status of candidacy and concerns the upgrade of the digital and technological infrastructures along the corridor along the Alpine territory of Turin-Lyon rail line where works are conducted. Europe. Finally, the applicant recently applied for the upgrading of the rail historic line Bussoleno – Avigliana, the base tunnel access from the Italian side (22-EU-TG-RE-AVIBUS-TELT-2), which design studies was financed by the Connecting Europe Facility, through the project 21-IT-TG-PFD-AviO.

#§COM-PLE-CP§#

1.7 Dual-use potential (civilian-defence)

Dual-use potential (civilian-defence) *(for Military mobility topics)*

Describe the potential of dual-use (civilian-defence).

N/A

#§PRJ-OBJ-PO§# #§REL-EVA-RE§# #@MAT-URI-MU@#

2. MATURITY

2.1 Readiness and technical maturity

Readiness and technical maturity

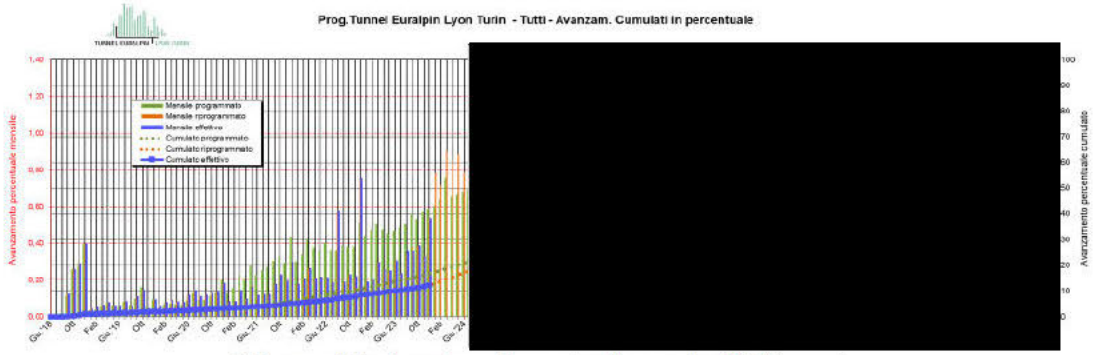
Provide information about the readiness and technical maturity of the project.

For every work package, describe the precise state of preparation (e.g. terms of reference ready, tendered, contract signed, started, etc. If any activities of the project have already started, indicate more precisely their current status of implementation.

Describe how the implementation of the project (and, if applicable, of the global project it is part of) depends on the results of past or on-going feasibility or technical studies. For projects with high technological value (such as infrastructure crossing natural barriers, intelligent traffic management systems, cooperative ITS, or airspace initiatives), provide additional information on the foreseen technology, type of communication, and materials.

Explain if there are any further dependencies that are critical to the start and completion of the project such as connection to grid or other utilities, access to and use of land, etc. Indicate if such authorisations have been obtained already or when they are planned for.

The Lyon-Turin project stands on a robust foundation, based on comprehensive technical, economic, and environmental assessments. It has successfully completed all the stages of studies, meticulous design work, and necessary approvals, demonstrating its commitment to rigorous planning and adherence to regulatory requirements. As the project advances, the implementation of the construction phase is progressing improving on the bases of the gained know-how constantly implementing the most innovative construction methods, technologies and management strategies.
The major tenders for the allocation of construction contracts have already been awarded, reflecting a high degree of readiness and a clear commitment. While some minor works still await the completion of tendering processes and contract awards, these remaining tasks are not expected to hinder the overall progress of the project. This proactive approach ensures that the Lyon-Turin project remains on track for timely completion and underscores the dedication of the involved parties to realize the vision of a trans-border rail connection by the specified deadline. **At this stage of the project, around 35 km of tunnels have been excavated, including access tunnels, logistics caverns, ventilation infrastructures and part of the base tunnel and more than 2,000 people are daily employed for the realization of the Cross-Border section.**
The project's ability to pass through various stages successfully and maintain a steady pace of work demonstrates its readiness to bring substantial benefits to the region and reinforce cross-border connectivity by the targeted timeline.
Future provisions are based on the so called "s-curve", showing the future evolution of the works according to the updated cash flow of the project.



S-Curve of the base tunnel construction works (2018-[redacted]

The image shows the "S-Curve" of the overall project, data in blue are representing the actual technical progress recorded. Forecasts are constantly updated by TELT and the green and orange lines are showing different forecasts. Peak values are determined by contractual instalments and provisions.

As explained above, this proposal does not include cost elements of the Alpine Crossing that, while necessary for the completion of the works, are not eligible under CEF rules: expropriations, accompanying measures, and investments on the historical line. Finally, railway technological installations that will start once the base tunnel is completed are outside the timeframe of this application.

The budget of this project is based on the expected progress defined by the orange line, that is more conservative. In addition, we attach as Annex of B Form the specific S-Curves of each Work Package.

The following paragraphs are presenting details on the maturity of each WP:

WP 1: Interconnection of Bussoleno - CO 01
Task 1.1 Interconnection of Bussoleno - CO 01: The tender of the execution of the works has been launched and the applications are under evaluation. The award and the signature of the contract with the assigned company is expected at the beginning of [redacted] The construction works for this Operating

Construction Site will start in [redacted] after the preparation of the detailed design to be realized by the same contractor.

WP 2: Civil works in Susa Plain CO 02

Task 2.1 Open-air civil works CO 02A: the contract for the works supervision has been awarded, the tender for the award of the construction works is under preparation. Tenders will take place between March 2024 and [redacted] The estimated timeline for the start of the detailed design for works is [redacted].

Task 2.2 Adaptation of A32 motorway and new Susa Est interchange CO 02B: the contract for the works supervision has been awarded, the tender for the award of the construction works is under preparation ([redacted] Agreement). The estimated timeline for the start of the works of the new Susa Est interchange is [redacted] The estimated timeline for the start of the works for the elevation of the A32 motorway is [redacted].

Task 2.3 New Autoport [redacted] CO 02C: the works are ongoing, and they will be completed in [redacted] TELT will carefully respect the rules foreseen by European regulation about the Double Financing (Regulation EU 2021/1153, Art. 19) and the budget for this task will start from [redacted] without over-allping the Grant Agreement in force (2014-EU-TM-0401-M).

Task 2.4 New "Safe driving" track [redacted] CO 02D: at this stage of the project the agreement with CONSEPI is almost finalized. The construction works will start in [redacted] and are expected to be completed in [redacted].

Task 2.5 Info point Henry Barrack CO 02E: the works are ongoing, and they will be completed in [redacted]

Work Package 3 – Base tunnel Maddalena-Susa CO 03-04

Task 3.1 Construction of the base tunnel between Susa and La Maddalena CO 03 – 04: the tender for the realization of the construction works was awarded in August, the contract was signed in November and the works started in December 2023. The contract for construction supervision and for the management of safety and security have been awarded. The task is going to start in January 2024, with the site preparatory works and the excavation of La Maddalena 2 is expected to start in [redacted], while the TBMs are going to start the excavations in [redacted] and [redacted].

Task 3.2 Chiomonte A32 Interchange 04 C: [redacted] as implementing body of this Task, has already awarded the contract for the construction works, which are currently ongoing. The completion date is estimated in [redacted].

Work Package 4 – Base tunnel Villarodin-Bourget/Modane – La Maddalena CO 05

Task 4.1 Construction of the base tunnel between Modane and La Maddalena CO 05: construction works on complementary components of the tunnel are ongoing. The executive studies, engineering and the provision of technical offices are ongoing. The excavation of the base tunnel with 2 TBMs is expected in [redacted] and [redacted].

Task 4.2. Construction of the two shafts in the Municipality of Avrieux 05A: construction works are ongoing, and they will terminate in [redacted]. The budget for this task will start from March 2024 without overlapping the Grant Agreement in force.

Work Package 5 – Base Tunnel S. Martin La Porte-Modane CO 06-07.

Task 5.1 Construction of the base tunnel between La Praz and Modane CO 06: construction works are ongoing on La Praz safety area. The excavation with traditional method is ongoing. The TBMs are going to start excavating in [redacted] and [redacted]

Task 5.2 Construction of the base tunnel between S. Martin La Porte and La Praz. CO 07: the construction works of the base tunnel with traditional method are ongoing. The TBM is going to start excavating in the second tunnel towards La Praz in April 2024. The budget for this task will start from March 2024 without overlapping the Grant Agreement in force.

Work Package 6 – Base Tunnel between S. Julien Mont Denis – S. Martin La Porte CO 08

Task 6.1 Construction of the base tunnel between S. Julien Mont Denis - S. Martin La Porte CO 08: the construction of the base tunnel with traditional method towards St. Martin La Porte is ongoing and its completion is expected in [redacted]. Complementary works at the entrance of the tunnel, in parallel with CO 09 are going to continue until [redacted].

Work Package 7 – Civil works in the S. J. de Maurienne plain CO 09

Task 7.1 Open air construction works in the plain of S. Jean De Maurienne [redacted] CO 09B-12B: works are currently ongoing under the responsibility of [redacted]. They started in 2018 and they will continue until the final completion of the project.

During the period [redacted], the following phases will be included, as stipulated in the agreement with [redacted]:

- Phase 2: completion with respect to activities initiated in the current grant (this phase consists mainly of creating the platform for the future new line within the Saint Jean de Maurienne Plain, to temporary relocate the historical line on this new platform)
- Phase 3: Starting in [redacted] (the objectives of this phase 3 are to re-establish the [redacted] plant service road in a definitive situation and move the RD1006 to allow the start of work on the creation of the platform of the historic line)

- Phase 4: Starting in [redacted] (Phase 4 consists mainly of creating the new platform for the historic line)

Task 7.2 Open air construction works in the plain of S. Jean De Maurienne TELT CO 09C: works are ongoing. TELT foresees an interruption of the works for the period [redacted] 5 as construction works will be realized on the basis of functional phases depending on the actual overall completion rate.
Task 7.3 Realization of the Arc Bridge CO 09E: all the design studies have been completed and the tender notice for the works has already been published. The bridge is scheduled to be commissioned at the beginning of [redacted] to allow the equipment train to enter the tunnel

Work Package 8 –Management of the excavated materials in Italy CO 10
Task 8.1 Management of the excavated materials in Italy CO 10: works are ongoing and temporary storage sites as well as the industrial facility of Salbertand are under preparation, however, in order to avoid the double financing the task is going to start in March 2024.

Work Package 9 –Management of the excavated materials in France CO 11.
Task 9.1 Management of the excavated materials in France CO 11: works are ongoing and temporary storage sites have been identified and they are already in use. The adaptation of the road infrastructure of Modane is ongoing. The contract was awarded in October 2023.

Work Package 10 –General costs and Prescriptions CO 00 & CO 00P
Task 10.1 CO 00 - General & CO 00P Prescriptions: all the activities are ongoing.

Work Package 11 – Horizontal Activities
Task 11.1 Insurance, Task 11.2 Engineering and construction supervision. Costs are traceable to annuities, based on invoicing. Task 11.3 Resolution of the interferences: all the activities are ongoing.
For the period [redacted], it is planned to sign agreements for the resolution of the following major interferences:
Italy: [redacted]
France: [redacted] and [redacted]

Work Package 12 – Project Management and Administrative activities
Task 12.1 Project Management and Administrative activities: all the activities for a proper management of the project are ongoing. The Task includes all the project management activities, including the coordination activities with Associated Partners, namely the French Ministry and the Italian Ministry for Infrastructure and Transport (MIT), necessary for the implementation of the project in line with the Grant agreement. The task will ensure the coherence of the implementation of the project as per the Grant Agreement with the TELT annual works plan.

Ex ante evaluations and feasibility studies

Provide information on ex-ante evaluations and feasibility studies (if any) and summarise the main results (and attach them as annexes).

In particular, describe the objectives, activities and policy options considered. Describe the main indicators used in the ex-ante evaluation and make reference to the appropriate statistical base. Outline the strategic and technical alternative options considered in the option analysis. Summarise the multi-criteria analysis or any other method used to shortlist the alternatives and what have been the arguments used to exclude cheaper but still relevant solutions. Summarise the shortlisted options or any other method used that led to the final selection.

If the ex-ante evaluation was carried out on a global project going beyond the scope of the project, give an overview and explain how it is linked to the project.

Clarify if TEN-T/CEF or other EU programmes have provided financial support for the ex-ante evaluations.

All the design studies have been completed and the construction works are ongoing. More in details:

In Italy
The design studies have been officially approved with the following Deliberations of the Italian Committee of the Ministries for Economic Programming:

- **Deliberations n. 57 of 3rd August 2011** approved the preliminary design studies of the Italian section of the International common cross-border section. (Annex B 2.1)
- **Deliberation n. 19 of 20th February 2015** approved the final design studies of the Italian section of the International common cross-border section. (Annex B 2.2)
- **Deliberations n. 30 of 21st March 2018 and n. 39 of 26th April 2018** approved the variant of the final design studies in compliance with the prescription 235 of CIPE's Deliberation n. 19 of 2015 which foresees that in the course of executive planning, an alternative location of the construction sites should be studied in accordance with the safety requirements of the workers and in compliance with the operational requirements of the works. (Annexes B 2.3 - B 2.4)
- **Ministero dell'Ambiente e della Sicurezza Energetica** (MASE - Ministry of Environment and Energy Security) Approval **n. 248 of 28/09/2022,** of the "Piano di Utilizzo delle Terre e Rocce da scavo" (Plan for the reuse of the Base Tunnel excavation materials) (Annexes B 2.5.1 - B 2.5.2). This approval refers to the detailed design of all the Italian operating construction sites

with reference to the site preparation and the management of the excavated material. Horizontal rules will be applied for all the Italian construction sites, while specific detailed design studies will be directly realized by the construction companies. This will speed up the start of the works.

- **Deliberations n. 3 of 15th February 2022**, approved the remodeling of lots n. 3, n. 4, n. 5, and building lot authorization n. 4.
- **Deliberations n. 7 of 29th March 2022**, authorization to start the construction lot n. 3 «phase tunnel - completion», and allocation of the related resources available. This deliberation allowed the start of the works.

The Observatory, in the context of the Turin-Lyon railway project, played a crucial role in shaping the final layout of the railway route. Its involvement was instrumental for several reasons:

- Examination of Route Alternatives: The Observatory conducted a detailed analysis of various route alternatives for the railway. This process involved the assessment of eleven different options, each with its own implications in terms of environmental impact, costs, and benefits. The Observatory's task was to impartially and objectively evaluate these options.
- Engagement with Stakeholders: During the decision-making process, the Observatory actively interacted with the local communities affected by the project. It held meetings and hearings with representatives from local institutions, experts, and other stakeholders. This engagement allowed for a wide range of perspectives to be considered, listening to community concerns and addressing local needs.
- Development of Technical and Policy Solutions: The Observatory went beyond a consultative role and was tasked with developing technical and policy solutions based on the data collected and stakeholder consultations. These solutions significantly influenced the choice of the final layout by providing well-founded and objective input for optimizing the railway route.
- Redesign of the Route: One of the most significant outcomes was the radical redesign of the original railway route. This entailed substantial changes, including altering the side of the valley crossed. These modifications were made after an extensive process of discussion and assessment of alternatives and received the necessary approvals to proceed with the final construction works.

In summary, the Observatory played a pivotal role in the decision-making process concerning the final layout of the Turin-Lyon railway. It contributed to the analysis of alternatives, gathered input from local communities, developed technical and policy solutions, and led to a substantial change in the original route. This approach marked a substantial shift in the approach to large infrastructure projects, moving from a sectoral view to active engagement of affected communities in determining the final layout.
Further details will be provided in the public consultation box.

In France

The design studies have been officially approved with:

- **Ministère de l'écologie, du développement et de l'aménagement durables Déclaration d'Utilité Publique (DUP) of 18/12/2007**: Declared the Public utility and the urgency of the works needed for the realization of the Turin-Lyon line. (Annex B 3.1)
- **Déclaration d'Utilité Publique (DUP) of 30/03/2011**: Declaration of Public utility by the Prefet of Savoy stating the public utility and the urgency of the works needed for the realization of the Turin-Lyon line In the Villarodin-Bourget area. (Annex B 3.4)
- **Ministère de la transition écologique et solidaire, Déclaration d'Utilité Publique (DUP) of 06/12/2017**: extending the effects of the decree of 18/12/2007 declaring of public utility and urgency the work necessary for the realization of the railway link Lyon–Turin between Saint-Jean-de-Maurienne and the Franco-Italian border.

The following general criteria have characterized the realization of the design studies:
Participatory planning: the local communities have been involved in a continuous discussion during the planning phases.
Choice of the optimal route: various route alternatives were evaluated in the preliminary planning stage with public multi-criteria comparative analysis to identify the best corridor based on the suggestions of the Local Communities.
Priority through the definition in functional phases: the phasing is an essential point as it avoids duplication of the works, construction works of uncertain duration and uncertain conditions of the work site;
Concentration and limitation of interventions: the phasing made it possible to select the maximum benefits while limiting the problems to a minimum; all the significant works are concentrated in few municipalities in Italy and France;
Optimization of land use: the phasing, by selecting and concentrating the areas of intervention, has made it possible to involve almost exclusively sites already compromised for transport uses, with minimal soil consumption;
Opportunity for reorganization: the project design aims at realizing an improved territory in terms of layout, functionality and image, including the future new lay out and functionality of the infrastructures;
Quality of the works: related to the shape of the future infrastructure, their inclusion in the territory and the materials and technologies used during the construction phase;

Optimization of construction sites: work was done in order to reduce the size of the construction sites by optimizing their functions, eliminating the base camps and instead using the accommodation facilities of the area, moving the excavated materials exclusively by rail, carrying out the work in closed and controlled spaces (thus solving the problem of dust and noise), optimizing the economic and employment effects of the territory;
Anticipation of works for the environment: various environmental interventions are planned in correspondence of the construction sites.
Economic impact: discussions with local communities have revealed the possibility of implementing various actions to enhance the economic impact of the project on the territory.

Political commitment

Provide information on the political commitments regarding the implementation of the project and, if relevant, on the global project, including cross-border commitments where relevant.

List and briefly describe the (formal and informal) documents demonstrating these commitments (decisions of national and regional authorities, memoranda of understanding, written agreements, national transport master plans or in sectorial strategies, etc).

As explained above, the realization of this project as part of the Global Project is the result of several international Treaties, demonstrating the strong political commitment for the realization of the NLTL:

- The Franco-Italian Agreement of 15.1.1996 which established an Intergovernmental Commission (IGC)
- A Franco-Italian Agreement was signed on January 29, 2001, in Turin which became Treaty after its ratification by the Parliaments of the 2 Countries, on February 28, 2002, in France and on September 27, 2002, in Italy. This agreement focused on the construction of the works of the common Franco-Italian part, necessary for the construction of a new transalpine rail link between Lyon and Turin for goods and passengers.
- A Franco-Italian Agreement was signed on January 30, 2012 in Rome whereby the Government of the French Republic and the Government of the Italian Republic decided the construction of a new Lyon - Turin railway line which became a Treaty after its ratification by the Parliaments of the 2 Countries, on December 2, 2013 in France and on April 23, 2014 in Italy. For the subsequent phases of the cross-border section, the art. 16 of the 2012 International Agreement provides that each Party finances, with the help of the European Union, the infrastructures located on its territory that are needed to access to the transfrontalier tunnel.
- An Agreement was signed on 24 February 2015 in Paris whereby the Government of the French Republic and the Government of the Italian Republic decide to start the final works of the cross-border section and to entrust the construction to the Promoter called Tunnel Euralpin Lyon Turin.
- The previous agreement (2015) was supplemented by the Additional Protocol of 2016.

On a democratic basis, all the above-mentioned Treaties have been approved by the National Parliaments of Italy and France, highlighting the relevant and "horizontal" political commitment for the realization of this project during the last decades.
Various institutional meetings between Italy and France have confirmed, during the year, the will for completing this relevant project. The last one was held in Naples in February 2020.
Finally, the political relevance of this intervention is confirmed at European level, by its inclusion in all the planning documents related to the realization of the TEN-T Network (see chapter "Priority").
Finally, it is important to identify the remaining actions necessary for the full completion of the project, so that European resources can be exploited at the maximum level, in line with respective planning and applicable co-financing rates, together with the available financial resources at national and regional level. According to the Regulation of the European Parliament and of the Council establishing the Connecting Europe Facility (CEF Regulation), all of the sections of the Lyon-Turin project are eligible for EU funding, (up to maximum 55% for the base tunnel and 50% for access lines). They must demonstrate a high degree of integration in the planning and implementation of the action and be in line with the article 14 of the CEF Regulation Financial resources should be, therefore, fully optimised with the maximum efforts of all parties involved.

Public consultations

Describe the public consultations carried out and the feedback received (or consultations foreseen and their timing).
Provide information on the plans to involve stakeholders during the implementation.

In Italy

With the Turin-Lyon railway project, for the first time in Italy, institutions had to implement a new tool for engaging with local communities. Following the strong protests in Venaus, Val di Susa, in December 2005, the central government intervened at the beginning of 2006 using a dual approach, which was innovative in its division of responsibilities. This division was agreed upon between local communities and the government, with the Institutional Table of Palazzo Chigi serving as the political forum for discussions and the Observatory for the Turin-Lyon railway line acting as the technical body responsible for developing and proposing policy solutions.

The Observatory was a unique experiment and left an indelible mark on public discourse regarding large infrastructure projects in Italy. Only in the early months of 2017, with the introduction of the new public procurement code, did the practice of consultation become mandatory for large infrastructure projects in Italy, following the example set by the Turin-Lyon project. Subsequently, with the National Recovery and Resilience Plan coming into effect, the instrument of public debate was strengthened, and a ministerial commission approved the guidelines.

In this context, the implementation of the National Recovery and Resilience Plan is facilitated by the equation of "large infrastructure = the country's future development = citizens and businesses."

In Italy, the experience of the Observatory in the approval process, from 2006 to 2015, involved over 236 meetings with representatives of local institutions, including 50 municipalities with 16 delegated representatives. It also included extensive benchmarking of national and international experiences, 300 expert hearings, and the compilation of nine in-depth volumes. The Observatory enabled technical experts and stakeholders to establish peaceful relationships with the communities affected by the project, even in the ongoing debate between those in favor and those against the project.

Most notably, after lengthy discussions and considering eleven alternative routes, the Observatory led to a new project that radically changed the original one, even altering the side of the valley that was crossed. With the necessary approvals from the CIPE (Interministerial Committee for Economic Planning), it gave the green light for the final construction works on the Italian side.

However, this was only one of the results of the Observatory. The uniqueness of this experience lies in all the actions taken after agreeing on the project route, which can be summarized as a radical shift in the perspective of accompanying infrastructure. Until its establishment, large infrastructure projects were viewed within a sectoral framework, with the territory playing a minor role and being consulted only for mitigation measures to limit negative effects and compensations for those affected by non-mitigable impacts. This approach contributed to the perception that infrastructure equals damage. Instead, the Observatory made territorialization its mission, aiming to integrate the Turin-Lyon project into the social, economic, and environmental context of the region and pursue policies and actions to stimulate development factors.

Furthermore, the Observatory did not restrict itself to studying alternative routes but also developed the phasing of interventions, assessed environmental benefits and safeguards, and significantly influenced the conception of construction sites as places of value. Notably, the Observatory saw the presentation of the first true plan for the economic and social recovery of Val di Susa: "Smart Susa Valley," a project that, due to its sustainability and technology focus, with the valorization of local resources, remains relevant and forward-thinking nearly a decade after its inception.

Here below the details of various public consultations that have been held for this project during the last decades and many local and national institutions have expressed their approval of the project. Here we provide references for the most recent ones.

Several public consultations with authorities and stakeholders were held in order to discuss about the project: in 2011, in Italy the **preliminary design** *(Progetto Preliminare)* was approved after a first stage of public consultation which foresaw the following phases:

- Announcement on National and Regional newspaper of the launch of the approval procedure of the project and information on the access to the technical and environmental documentation;
- Private Citizens and involved stakeholders can send technical remarks on the project to the Competent Authority (Ministero dell'Ambiente e della Sicurezza Energetica) within the 60 of the Announcement date.
- Regarding the EIA, Regione Piemonte (Regional Competent Authority) had activated n. 3 sessions of Conferenza di Servizi, Technical Consultations opened to the involved public parties: Public Offices, Municipality, Stakeholders interfered.

In 2015, the **final design** *(Progetto Definitivo)* of the project was approved after another consultation stage structured as follows:

- Announcement on National and Regional newspaper of the launch of the approval procedure of the project and information on the access to the technical and environmental documentation;
- Private Citizens and involved stakeholders can send technical remarks on the project to the Competent Authority (Ministero dell'Ambiente e della Sicurezza Energetica) within the 60 of the Announcement date.
- Regarding the EIA, Regione Piemonte (Regional Competent Authority) had launched n. 3 sessions of Conferenza di Servizi, Technical Consultations opened to all the involved public parties: Public Offices, Municipality, Stakeholders interfered.

- Regarding the approval of the Detailed Design, the Ministero delle Infrastrutture e dei Trasporti, had launched n. 2 sessions of National Conferenza di Servizi Technical Consultations opened to all the involved public parties: Public Offices, Municipality, Stakeholders interfered.

Finally, the **design of variant** of the final Design *(Progetto Definitivo)* was approved in 2018 with two Deliberations of the CIPE after an additional public consultation phase:

- Announcement on National and Regional newspaper of the launch of the approval procedure of the project and information on the access to the technical and environmental documentation;
- Private Citizens and involved stakeholders can send technical remarks on the project to the Competent Authority (Ministero dell'Ambiente e della Sicurezza Energetica) within the 60 of the Announcement date.
- Regarding the EIA, Regione Piemonte (Regional Competent Authority) had launched n. 2 sessions of Conferenza di Servizi, Technical Consultations opened to all the involved public parties: Public Offices, Municipality, Stakeholders interfered.
- Regarding the approval of the Detailed Design, the Ministero delle Infrastrutture e dei Trasporti, had launched n. 1 session of National Conferenza di Servizi Technical Consultations opened to all the involved public parties: Public Offices, Municipality, Stakeholders interfered.

As just described, the public consultation held in Italy was structured with a continuous debate with the stakeholders and systematically approved by the Italian Authority (CIPE) considering the results of these debates and issuing specific prescriptions for the realization of the project accordingly. The consultations were carried out both on a National and Regional level. Moreover, within the scope of the **environmental impact assessment** procedures carried out for this project all the public was consulted according to the European and National relevant laws.

In France

As part of the public research subsequently carried out in the Municipality of Villarodin-Bourget, a consultation process was also put in place. Between February 2008 and March 2011, there were more than 40 working meetings held by LTF (now TELT) with various State departments, half of them in consultation with the Mayor of the Municipalities. The Sub-prefect took part in 10 of these meetings, and the Prefect in 4 of them. During the public inquiry, in June 2010, the investigating commissioner organized a public meeting. At the end of the process, the investigating commissioner sent to LTF (now TELT) several questions, which led to the drafting of a report. The commissioner took this report into account in his conclusions, before sending it to the Prefect so that the latter could issue a decree declaring the public utility.

A continuous consultation process continued, leading representatives of LTF (now TELT) to meet regularly with the mayors of the municipalities concerned by the Project, to participate in public information meetings or conferences, in addition to all communication through the press and by welcoming the public at the LTF information center (now TELT) in Modane.

Given the possible damage to the environment, some installations require prior administrative authorization. These are mainly facilities classified for the protection of the environment (ICPE - *"Les Installations Classées pour la Protection de l'Environnement"*), inert waste storage facilities (ISDI) and authorizations to destroy protected species (CNPN). In accordance with the Environment Code, these files are examined by the State services, transmitted in parallel to the municipalities and made available to the public. In addition, public displays (on the internet, site, in town hall and in the press) are made so that everyone can be aware of these files, consult them and make comments. Some works required administrative authorizations according to the regulations of the Environment Code. In particular, construction sites and material storage sites are subject to ICPE (Plants classified for environmental protection) declaration, registration or authorisation.

The following prefectural decrees were issued considering the environmental, urban and heritage impacts:

- AP ICPE registration 17/02/2023 for the deposit site of Les Resses in the municipality of Villargondran.
- AP ICPE registration 16/11/2022 for the Tierces deposit site in the municipality of Villarodin-Bourget.

Within the framework of the authorizations obtained under the environment code for the works of the descending tunnels, and more particularly for the works of the gallery of Saint-Martin-la-Porte which begin in 2015, this information and consultation process was carried out, mainly in 2013 and 2014. It consisted of meetings with the elected representatives of the municipalities concerned. At the request of some mayors, meetings were also held before municipal councils, as well as public information meetings.

All the planning and programming activities at local level are taking into account the realization of this project and the following are example of this participated planning: the Pays de Rhône Alpes Development Contract (CDPRA) and the Savoie Territorial Contract (CTS).

2.2 Status of contracting procedures and authorisations, approvals and permits

Authorisations, approvals and permits

Indicate the general project maturity in terms of authorisations, approvals and permits needed.

This project is the result of a very complex approval process at national level, in France and Italy and at local level. All the approvals have been obtained and no further authorizations are needed to continue with the realization of the project. A specific scheme on all the approvals obtained is provided in the Annex B 4.1, In this chapter we refer to the most relevant authorizations obtained.

Here below the Task involved aggregated per Territory (Italy and France) as a support for the following box (Authorisations, approvals and permits (including environmental).

Authorisations, approvals and permits (including environmental)

For each work package/task, list the authorisations or approvals needed (at governmental, regional, local level, including environmental approvals, right-of-way, state aid notification/decision, etc.) and their status and expected timeline.

Risk factors and mitigating measures (alternative solutions) if the authorisations are not obtained in time should be described in section 3.4.

Task No	Type and Description	Status	Date of award
IT (all tasks)	*Comitato Interministeriale per la Programmazione Economica (CIPE -Committee of the Ministries for Economic Programming), Delibera n. 47 - 03/08/2011: approval of the **preliminary design** studies of the Italian section of the International common cross-border section. (Annex B 2.1)*	Received	*03/08/2011*
IT(all tasks)	*Comitato Interministeriale per la Programmazione Economica (CIPE -Committee of the Ministries for Economic Programming), Delibera n. 19 - 20/02/2015: approval of the final design studies of the Italian section of the International common cross-border section. (Annex B 2.2)*	Received	20/02/2015
IT (all tasks)	*Comitato Interministeriale per la Programmazione Economica (CIPE -Committee of the Ministries for Economic Programming), Delibera n. 30 - 21/03/2018: approval of the **variant of the final design studies** in compliance with the prescription 235 of CIPE's Deliberation n. 19 of 2015. (Annex B 2.3)*	Received	21/03/2018
IT (all tasks)	*Comitato Interministeriale per la Programmazione Economica (CIPE -Committee of the Ministries for Economic Programming), Delibera n. 39 - 26/04/2018: approval of **the amendment of the variant.** (Annex B 2.4)*	Received	26/04/2018
IT (all tasks)	*Approval by the Ministero dell'Ambiente e della Sicurezza Energetica (MASE) N. 248, on September 28th, 2022, of the Piano di Utilizzo delle Terre e Rocce da scavo (**Plan for the reuse of the Base Tunnel excavation materials**) (Annexes B 2.5.1 - B 2.5.2)*	Received	28/09/2022
IT (all tasks)	*Approval act n. 1004.TELT_UE_PROVV.1004.TEC.22 on June 09th 2022, for the **renewed public utility for the Italian section** of the International common cross-border section. (Annex B 2.6)*	Received	09/06/2022
FR (All Tasks)	*Ministère de L'écologie, du Développement et de L'Aménagement Durables (Ministry of Ecology, Development and Sustainable Development), Décret of 18/12/2007 (JO le 20/12/2007) declaration of public utility (DUP) and urgent the work necessary for the realization of the railway connection Lyon–Turin between Saint-Jean-de-Maurienne and the Franco-Italian, excluding works and surface works planned in the territory of the municipality of Villarodin-Bourget, and including compatibility of the planning documents of the municipalities of Saint-Jean-de-Maurienne, Villargondran, Saint-Julien-Mont- Denis, Montricher-Albanne, Saint-André, Avrieux in the department of Savoie, whose effects were extended by decree of 06 December 2017. (Annex B 3.1)*	Received	18/12/2007
FR (All Tasks)	*Prèfet de la Savoie (Prefect of Savoy), Arrêté préfectoral of 12/02/2007, authorizing, pursuant to Articles L.214-1 to L.214-6 of the Environment Code, the work to build the new Lyon-Turin rail link between Saint-Jean-de-Maurienne and the Franco-Italian border. (Annex B 3.2)*	Received	12/02/2007

FR (All Tasks)	*Prèfet de la Savoie (Prefect of Savoy), Arrêté préfectoral of 4/03/2011, granting additional authorization under Articles L.214-1 to L.214-6 of the Environment Code, "initial status" and "follow-up" phases to be carried out in the context of the Lyon-Turin rail link. (Annex B 3.3)*	Received	4/03/2011
FR (All Tasks)	*Prèfet de la Savoie (Prefect of Savoy), Arrêté préfectoral of 30/03/2011, declaration of public utility including compatibility of the Land Use Plan of the municipality of Villarodin-Bourget for the project of works and surface works planned in the territory of the municipality of Villarodin-Bourget within the framework of the new rail link Lyon-Turin, whose effects were extended by prefectural decree of 14 March 2016. (Annex B 3.4)*	Received	30/03/2011
FR (All Tasks)	*Prèfet de la Savoie (Prefect of Savoy), Arrêté Prefectoral n. 1166 - 16/08/2016: this approval relates to the derogation from the law protecting the destruction of protected species ("Dérogations à la destruction d'espèces protégées" of the Conseil National de la Protection de la Nature CNPN) and concerns all the sites linked to the digging of the base tunnel, as part of the cross-border section of the project for a new rail link between Lyon and Turin (NLTL). (Annex B 3.5)*	Received	16/08/2016

Building permits

For each work package/task, provide information on the building permits which must be obtained.

Describe what the permit is for, the authority concerned, the size (land surface) and the kind of works concerned.

Indicate their status timeline.

Risk factors and mitigating measures (alternative solutions) if the permits are not obtained in time should be described in section 3.4.

Task No	Type and Description	Status	Date of award
IT (All Tasks)	All the approvals listed are authorizing the start of the construction works and therefore they have to be considered building permits.	N/A	N/A
FR (All Tasks)	All the approvals listed are authorizing the start of the construction works and therefore they have to be considered building permits.	N/A	N/A

Contracting procedures

Procurement in general

Indicate the project maturity in terms of procurements needed.

Various contracts are currently included in the procurement list of TELT (ongoing and awarded) for the realization of this project for an overall amount of more than 5 billion €.
Procurement activities are performed in accordance with the company's objectives and applicable laws and regulations which are prominent in public sector. In short, the hierarchy of documents is as follows:

- Laws and regulations
- The TELT Procurement Policy
- The TELT Procedures and Processes internal manuals.

TELT's procurement policy aims at awarding contracts not only on the basis of economic and technical criteria, but also measuring sustainability aspects, such us the awarding of contractors that guarantee the use of territory's services.
TELT goes further by introducing evaluation criteria in its calls for tenders based on occupational safety or employment promotion objectives as well as on environmental certifications. Moreover, TELT requires from the selected contractors to subscribe its Code of Ethics.
This process involves also an Independent Contracts Commission which controls all the aspects involved in awarding and executing contracts drawn up by the company.
In addition, the international agreements of 2012 and 2015 stipulate that in order to combat mafia infiltration, TELT is obliged to apply an extremely strict set of Contract Regulations that reconciles the procedure of Italian anti-mafia controls with the supplier assessment provisions of risk mapping, and anti-corruption, of procurement law.

It is worth mentioning that TELT has also obtained the Procurement Excellence Programme Certification by Chartered Institute of Procurement and Supply (CIPS).

Contracts awarded before submission of the proposal

For each work package/task, explain the contracts already awarded, their typology and status. For public procurers, please specify which procurement method has been selected (e.g. EU-wide or national; open, restricted or negotiated, etc). For private companies, please specify best value for money. Where applicable, indicate the starting dates of the awarded contracts.

⚠ *Please note that we do not check or validate the procurement method you chose. The procurement must be in compliance with the provisions set out in the Grant Agreement and compliance may be checked later on (in checks, reviews, audits or investigations).*

The following table is presenting the main contracts currently awarded. Considering the overall global project, TELT has awarded various contracts, for an overall value of 3.83 billion €. We provide below the main ones. All the contracts have been awarded carefully respecting the Italian and French Laws for public procurement procedures.

Main contracts awarded by July 2023

WP & CO	Description	Contractors	Value €
WP 5 CO6-7	T7 LOT 2 - Construction of the base tunnel of the cross-border section of the Lyon-Turin rail link starting from the connections on the France side LOT 2: Construction site 6/7 construction of the tunnel starting from the connections of the La Praz and Saint-Martin-la-Porte descents (2021-C188002-A)	[redacted]	1.660.661.683
WP4 CO5	T7 LOT 1- Construction of the base tunnel of the cross-border section of the Lyon-Turin rail link starting from the connections on the France side LOT 1: Operational construction site 5: Construction work of the tunnel starting from the Villarodin-Bourget/Modane descent attachment (2021-C188001-A)	[redacted]	1.609.276.225
WP6 CO8	T7 LOT 3 - Construction of the base tunnel of the cross-border section of the Lyon-Turin rail link starting from the connections on the France side LOT 3: Operational construction work 8: Tunnel construction work starting from the Villard-Clément portal attacks (2021-C188003-A)	[redacted]	304.827.071
WP4 CO5	S8: Base Modane tunnel works - Villarodin/Bourget - Maddalena - MOE - DL (construction supervision/direzione lavori) Lotto 1 (2018-C180007-0)	[redacted] (mandataria)	39.926.733
WP5 CO6-7	S8: Base tunnel from La Praz and Saint-Martin-la-Porte – MOE – DL (2018-C180008-0)	[redacted] (mandataria)	37.065.990
WP3 CO3-4	S29: Operational Construction Sites 3-4 - Works Management Maddalena Base Tunnel - Susa and Maddalena Interchange Area - DL (construction supervision/direzione lavori) (2019-C180259-0)	Groupement [redacted]	20.642.686
WP3 CO3-4	T13 LOT 1 - Construction works of the base tunnel of the cross-border section of the Lyon-Turin railway link starting from the attacks on the Italian side and works to enhance excavated lands and rocks – LOT 1: Operational construction sites 3 and 4 (CO3 and CO4): construction works of the base tunnel on the Italian side starting from the Chiomonte construction site, both with TBM and with traditional method.	[redacted]	1.099.000.000
WP10 CO00	S27: Project management assistance services Engineering in the works phase (AMO) (2019-C17306-0)	Groupement [redacted]	19.979.510
WP8 CO10	T20 - Removal of abandoned materials and waste and reclamation / safety works of areas C and D / Site of Salbertrand. (2021-C210423-0)	[redacted]	19.979.399
WP9 CO11	S37: Project management for the management and use of excavated materials on the France side (CO11) (2020-C192172-0)	[redacted] (gérant)	19.240.916

WP9 CO11	T12 - Work related to the management and use of excavation materials on the FRANCE side of the cross-border section of the Turin-Lyon railway project (operational site 11)	Groupement [redacted] (mandataire) : [redacted]	799.000.000
WP6 CO8	S8: Base tunnel from the west head – MOE – DL (construction supervision/direzione lavori) (2018-C180009-0)	[redacted] (mandataria)	13.761.630
Horizontal	S53 - Construction insurance benefits for the works of the base tunnel of the Turin–Lyon rail link - LOT 1: Principal liability (2022-C200751-A)	[redacted]	10.670.730
WP1-2 CO1-2	S42 - Provision of construction supervision and high surveillance for operational construction sites CO1 — interconnection tunnel (Bussoleno) and CO2 — outdoor works (plain of Susa). LOT 2: Works supervision and high supervision services for the construction of the open-air works of the new Turin-Lyon railway line in the Susa plain. (2022-C181039-B)	[redacted]	10.391.227
WP8 CO10	S24: Project management service for the management and recovery of excavated materials on the Italian side of the cross-border section of the Lyon-Turin railway project (Operational Site No. 10) (2020-C180351-A)	Groupement [redacted]	10.228.559
WP9 CO11	T10 - Construction of a construction track for the Modane ring road – Lot 2: Underground works carried out with traditional method and open-air works (2022-C181476-B)	[redacted]	9.345.508
WP10 CO00	S36: Security coordination at IT run time (2020-C180571-0)	Groupement [redacted]	7.821.750
WP1-2 CO1-2	S42 - Provision of construction supervision and high surveillance for operational construction sites CO1 — interconnection tunnel (Bussoleno) and CO2 — outdoor works (plain of Susa). LOT 1: Works supervision and high supervision services for the construction of an interconnection tunnel and grafting of the new Turin-Lyon railway line to Bussoleno. (2022-C181039-A)	[redacted]	6.869.503
Horizontal	T5 - Preparatory work for the construction of the western entrance to the base tunnel on the left bank of Arc Lot 1 - reinforcement of dams by resuming the works and carrying over to the rear - diversion and creation of networks. (2021-C192049-A)	[redacted]	6.799.828

Contracts planned during implementation

For each work package/task, explain the contracts planned, their typologies and status. For public procurers, please specify which procurement method will be selected (open, restricted, negotiated, EU wide or national). For private companies, please specify how you will ensure best value for money. Where applicable, please indicate the start dates of the awarded contracts.

⚠ *Please note that we do not check or validate the procurement method you chose. The procurement must be in compliance with the provisions set out in the Grant Agreement and compliance may be checked later on (in checks, reviews, audits or investigations).*

The following table is presenting the main contracts to be awarded for the realization of the project until the end of [redacted]

CO	Description	Status	Value €
WP3 CO3-4	T13 LOT 2 - Construction works of the base tunnel of the cross-border section of the Lyon-Turin railway link starting from the attacks on the Italian side and works to enhance excavated lands and rocks – LOT 2:	[redacted]	216.440.000

	Operational site 10: works to enhance the excavated lands and rocks from all the construction sites on the Italian territory, and environmental requalification works		
WP8 CO9	T16 - Works for the construction of a viaduct over the Arc River, for railway use, in the plain of Saint-Jean-de-Maurienne (CO9e operational site)	[redacted]	37.500.000
WP9 CO11	T21 - Reception and valorisation of inert and sulphated materials from the excavation of the base tunnel of the new Turin-Lyon railway link project (3 lots)	[redacted]	33.090.000
Horizontal	S54 - Strategic consulting, design and implementation of TELT's global communication (4 lots)	[redacted]	9.000.000
Horizontal	S63 - Assistance in the recruitment and management of temporary staff	[redacted]	3.525.000
WP10 CO00	S56 - Environmental coordination services for construction sites on the French side	[redacted]	3.000.000
Horizontal	S52 - Health insurance provision for the staff of the company TELT with residence in Italy for the period between 01/01/2024 and 31/12/2028.	[redacted]	3.000.000
Horizontal	S58 - Carrying out internal audits for TELT (2 lots)	[redacted]	3.000.000
Horizontal	S59 – Translation and revision of documents for TELT's statutory services and bodies (3 lots)	[redacted]	1.960.000

2.3 Financial maturity

Financial maturity

Describe the availability of funds for the project over its lifecycle (budget in balance; use of funds vs sources of funds) demonstrating that the sources of funds cover the project costs. Distinguish between the applicant's own resources, third party resources, grants and other forms of funding of the project and list for each source the fund providers, recipients and use of funds. Provide a diagram of entities participating in the financing structure, either as a receiving party or as provider of funding or financing, or of other support (e.g. guarantee).

Provide details on revenues and other sources of financing needed to complement the CEF support and the degree of confidence in those financial commitments.

For own resources, indicate whether these are already approved internally and put aside for the project, or what conditions need to be lifted to reach approval. Explain the degree of confidence (and why) that these conditions will be lifted. Give details on the planning/timing for the final investment decision.

For resources contributed by third parties, describe the amounts expected, their nature (external equity, debt or other grants). Indicate when approval is expected and explain the degree of confidence (and why) of getting such approval. Indicate if the approval necessitates a due-diligence process and, if yes, describe its scope.

For debt instruments, explain if you (or your partners or associated companies) provide guarantees of repayment, irrespective of the financial performance of the project. Explain the debt structure (layers and their respective seniority) as necessary.

Explain what the alternatives are, if a specific source of financing turns out to be not available.

The financing of this project is secured since the project is financially supported by the two member States (Italy and France) through the 2012 Italy-France Treaty. More specifically, the project is financially supported by the two member States (Italy and France) up to the amount established at article 18 of the 2012 Italy-France Treaty and both States have a financial provision for the project up to their shares (57,9% for Italy and 42,1% for France). Both States have a financial provision for the project up to their shares. More specifically different mechanisms are ser for financing the project:

- Financing from the Italian government: the Italian Government provides financing through the yearly budget law. By December 2024 Budget laws have been adopted for this purpose:
  - State budget Law 24/12/2012, n. 228
  - State budget Law 30/12/2020, n. 178
  - State budget Law 30/12/2021, n. 234
  - State budget Law 29/12/2022, n. 197
- Financing from the French government: the French Government provides financing through the yearly instalments provided by the "Agence de Financement des Infrastructures de Transport de France"
- Financing from the European Union: the European Union provides financing through long-term contracts in the framework of the TEN-T policies funding instruments (TEN-T, CEF, CEF2 programmes).
  - 2004-FR-603b-S: New Turin-Lyon rail link, international section
  - 2005-EU-603a-S: New Turin-Lyon Rail Link – International Section
  - 2007-FR-91209-S: Turin-Lyon railway project: French accesses to the base tunnel
  - 2007-EU-06010-P: New Turin-Lyon Rail Link - Franco-Italian Common Part of the International Section (Studies and Works)

- 2014-EU-TM-0401-M: "Cross Border Section of the New Lyon-Turin Rail Link Mont Cenis Base Tunnel (TBM)"

- Financing from railway tools generated by the traffic on the historic line

Beyond this scheme, the Treaty of 2012 establishes that all the extra costs of the project will be covered by both states at the 50%.

Moreover, in order to maximise the financial sustainability of the project, all the costs are periodically monitored and certified from external entities. As mentioned, the global project is partially financed by the CEF1 program (action number 2014-EU-TM-0401-M). During the GA negotiation and the course of the project, TELT will carefully respect the rules foreseen by European regulation about the Double Financing (Regulation (EU) 2021/1153, Art. 19).

By December 2023 the available funding already secured to the project is 7,9 billion €, differentiated for source of funding between Italy, France and Europe as follows:

- Italy: 4.262 million €
- France: 3.066 million €
- Europe: 575 million €

Looking at this Application we would like to show how the Grant provided by the European Union will cover the eligible costs during the timeline of the project.

Investments costs and Grant development during the timeline of the project (€ million)

	RP1: [redacted]											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A	58,4	29,3	104,5	96,9	102,5	87,9	97,1	102,1	93,0	100,1	95,7	96,5
B	58,4	87,6	192,1	289,0	391,6	479,5	576,6	678,7	771,8	871,8	967,6	1.064,1
C	**29,2**	**43,8**	**96,1**	**144,5**	**195,8**	**239,7**	**288,3**	**339,4**	**385,9**	**435,9**	**483,8**	**532,1**
	RP2: [redacted]											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A	99,1	101,1	113,0	116,7	114,7	114,6	114,2	112,5	112,6	112,2	110,1	115,2
B	1.163,2	1.264,4	1.377,3	1.494,0	1.608,7	1.723,3	1.837,5	1.950,0	2.062,6	2.174,8	2.284,9	2.400,1
C	**581,6**	**632,2**	**688,7**	**747,0**	**804,4**	**861,6**	**918,7**	**975,0**	**1.031,3**	**1.087,4**	**1.142,4**	**1.200,0**
	RP3: [redacted]											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A	117,5	117,7	109,2	116,4	128,6	128,0	127,6	127,1	127,2	127,3	126,7	126,1
B	2.517,5	2.635,3	2.744,4	2.860,8	2.989,4	3.117,4	3.245,0	3.372,1	3.499,3	3.626,6	3.753,3	3.879,4
C	**1.258,8**	**1.317,6**	**1.372,2**	**1.430,4**	**1.494,7**	**1.558,7**	**1.622,5**	**1.686,1**	**1.749,6**	**1.813,3**	**1.876,6**	**1.939,7**
	RP4: [redacted]											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A	123,1	122,4	121,5	120,4	118,7	116,9	116,2	115,4	114,3	112,5	109,9	107,4
B	4.002,4	4.124,8	4.246,3	4.366,6	4.485,3	4.602,2	4.718,4	4.833,8	4.948,0	5.060,5	5.170,4	5.277,8
C	**2.001,2**	**2.062,4**	**2.123,1**	**2.183,3**	**2.242,6**	**2.301,1**	**2.359,2**	**2.416,9**	**2.474,0**	**2.530,2**	**2.585,2**	**2.638,9**

A: Eligible costs (monthly)
B: Eligible costs (cumulated)
C: Grant (cumulated)

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3. QUALITY

3.1 Cost effectiveness and financial management

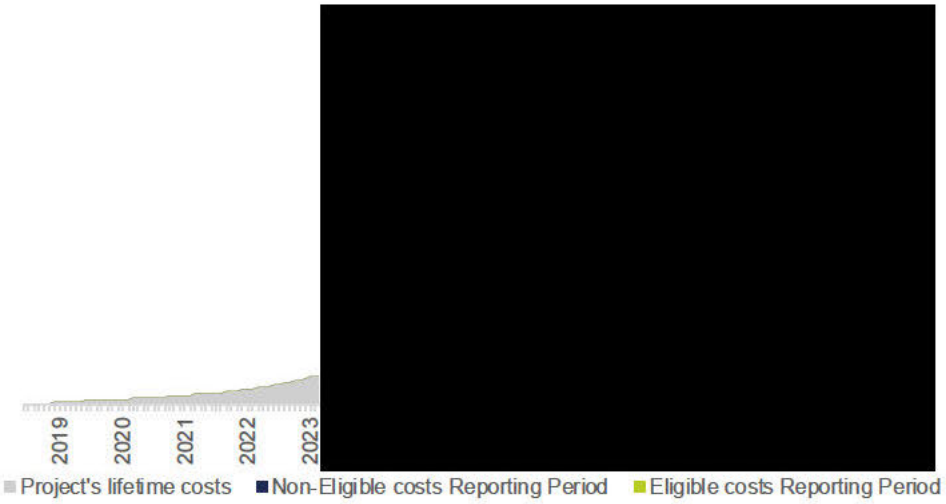
Cost effectiveness *(n/a for prefixed Lump Sum Grants)*

For each work package of the project, explain and justify the level of resources needed for implementing the proposed tasks. These may relate to human resources, financial resources, buying equipment, etc.

Note: *It is important to demonstrate the appropriateness of the estimated costs (in terms of both type and level of costs) needed for the implementation of the proposed tasks.*

For the realization of each work package is based on the award of external contracts. For each Operating Construction Site one main contract for construction work is planned.

Projects S-Curve (certified costs between 2018 and [redacted]



Other contracts might be needed for the realization of complementary works. personnel costs are only included in WP 12, Project Management and Administrative activities. All the other WPs will be realized through subcontracting. In general, all the costs' estimation was done based on a S-Curve which is a chart that shows construction cash flows over a standard project's lifetime and prepared on the basis of the experience of TELT and the actual costs incurred until today.

Here above the S-Curve of the overall project with details related to the reporting period object of this application. In addition, we attach as Annex of B Form the specific S-Curves of each Work Package.

Detail of the reporting period resources needed

Here below the details of the eligible costs per work package and per year and reporting period.

Eligible costs of the projects per WP from 2024 to 2027 in k euro

WP /Task	CO	RP1	RP2	RP3	RP4	TOTAL	CEF-50%
1	CO 01 - Interconnection of Bussoleno	0	0	4.177	37.049	41.226	20.613
2	CO 02 - Susa Plain Works	3.434	28.282	60.936	85.220	177.873	88.936
2.1	CO 02A	0	0	7.965	44.098	52.064	26.032
2.2	CO 02B	0	1.020	33.866	41.122	76.007	38.004
2.3	CO 02C	0	24.146	3.270	0	27.416	13.708
2.4	CO 02D	0	2.581	15.836	0	18.416	9.208
2.5	CO 02E	3.434	535	0	0	3.970	1.985
3	CO 03-04 - Base tunnel Maddalena-Susa	93.189	188.101	213.728	234.485	729.503	364.752

3.1	CO 03-04	93.189	163.746	213.728	234.485	705.148	352.574
3.2	CO 04C	0	24.355	0	0	24.355	12.178
4	CO 05 - Base Tunnel Modane-Maddalena	85.167	50.586	219.951	420.096	775.800	387.900
4.1	CO 05	8.179	13.526	219.433	420.096	661.234	330.617
4.2	CO 05A	76.988	37.060	518	0	114.566	57.283
5	CO 06-07 - Base Tunnel La Praz-Modane-S. Martin La Porte	442.444	538.927	456.918	191.576	1.629.865	814.932
5.1	CO 06	253.358	266.132	225.543	112.262	857.296	428.648
5.2	CO 07	189.086	272.795	231.375	79.314	772.569	386.284
6	CO 08 - Base Tunnel S. Julien Mont Denis-S. Martine La Porte	72.290	88.433	40.417	4.345	205.485	102.742
7	CO 09 - S. Jean de Maurienne Works	85.950	81.802	99.695	87.635	355.081	177.541
7.1	CO 09B-12B	85.950	69.357	69.206	66.425	290.938	145.469
7.2	CO 09C	0	0	4.391	14.707	19.098	9.549
7.3	CO 09E	0	12.445	26.098	6.502	45.044	22.522
8	CO 10 - Valorization of Materials (Italian Side)	49.253	91.550	80.212	28.647	249.662	124.831
9	CO 11 - Valorization of Materials (French Side)	35.602	80.085	112.631	131.035	359.354	179.677
10	CO 00 - General + CO 00P - Prescriptions	6.836	12.782	16.586	17.377	53.580	26.790
11	Horizontal Activities	109.750	105.143	103.398	92.789	411.080	205.540
11.1	insurance	10.189	11.036	12.141	10.654	44.019	22.010
11.2	Engineering	81.395	77.072	77.588	74.982	311.037	155.518
11.3	Interferences	18.167	17.035	13.669	7.153	56.023	28.012
12	Project Management and Administrative activities	80.209	70.264	70.624	68.170	289.267	144.633
	TOTAL	**1.064.124**	**1.335.954**	**1.479.273**	**1.398.423**	**5.277.775**	**2.638.887**
	CEF	532.062	667.977	739.637	699.212	2.638.887	
	CEF - cumulated	532.062	1.200.039	1.939.676	2.638.887		

We decided to design this Application considering one reporting period per year. All the figures are expressed in € current.

Finally, considering WP12 Project Management and Administrative activities, it includes the costs related to TELT SAS personnel and purchase costs, which includes costs of travel, equipment and other good necessary for the realization of this project (logistical cost, professional services, IT services etc.). The Task includes all the project management activities, including the coordination activities with Associated Partners, namely the French Ministry and the Italian Ministry for Infrastructure and Transport (MIT), necessary for the implementation of the project in line with the Grant agreement. The task will ensure the coherence of the implementation of the project as per the Grant Agreement with the TELT annual works plan. We consider **for the other WPs the sole category of subcontracting costs.**

Costs categories

WP 12	Personnel costs	Travel and subsistence	Equipment	Other goods, works and services	TOTAL
%	60%	3%	3%	34%	100%
EUR	**173.560.076**	**8.678.004**	**8.678.004**	**98.350.710**	**289.266.794**

WP 1-11	Subcontracting	Travel and subsistence	Equipment	Other goods, works and services	TOTAL
%	100%	0%	0%	0%	100%
EUR	**4.988.507.908**	-	-	-	**4.988.507.908**

Financial management

Describe in detail the arrangements for the financial management of the project and the monitoring, internal and external audit and evaluation processes, put in place to ensure the eligibility of the expenditure.

TELT will monitor that the Project is implemented in accordance with the Grant Agreement and bears the responsibility for supplying all documents and information that may be required under the Agreement. The expenditure progress will be monitored by the Project Management Team and by the administrative, technical and financial departments of the Company on the basis of the Operating Construction Sites. The structure of this project proposal based on the Operating Construction Sites is conceived in order to ensure an effective, efficient and reliable financial management. The following activities will be performed for managing the CEF fund:
- Monitoring the expenditures to comply with the financial plans;
- Elaboration of guidelines/instructions for documentation of expenditures (e.g. time sheets, invoices) based on CINEA guidelines and monitoring of these documents;
- A structured and harmonised periodic system will be set up for administrative and financial monitoring and audits.

More specifically the control procedure set by the Grant Agreement will be enforced for the realization of the project, especially considering the following articles of the Model Grant Agreement:
19. General Information Obligations
20. Record-Keeping
21. Reporting
22. Payments and recoveries – Calculations of amounts due
23. Guarantee
24. Certificates
25. Checks, reviews, audits and investigations – Extension of findings
26. Impact evaluations

Internal audit and evaluation process
TELT in order to ensure the quality and the evaluation of the financial procedures during the implementation of the project has established specific internal and external bodies and issued policies towards an effective financial management. TELT has established a permanent external and independent Audit Committee with the mission of strengthening the internal and external levels of control and consolidate the financial governance. In addition, the Permanent Control Service is an external body that ensures the proper use of public funds and the economic, financial and technical efficiency. Finally, the Contracts Commission which is composed from independent experts recognised for their competence in the technical, legal, economic and financial aspects involved in awarding and executing contracts drawn up by the company.
TELT has also established a specific internal division directly depending on the Board of Directors named as Statutory Affairs and Internal Audit Department devoted to set up specific internal control processes, ensuring the sound financial management.
Finally, the yearly financial performances of TELT are evaluated and certified by an Independent Body (Organismo di Certification/ Organisme de Certification).

External audit and evaluation process
There are two external control bodies, which are the Contracts Commission and the Permanent Control Service. The Contracts Commission was established by the Article 7 of the Treaty of 30th January 2012 as a specific body in charge of awarding contracts in respect of the European Directives on public contracts carefully respecting the principle of best value for money and sound financial management. The Permanent Control Service (established under Article 8 of Treaty of 2012) is a control body composed by 12 experts appointed by the Italian and French governments and it supervises the implementation of the project and more generally, the operation of the company. It ensures the proper use of public funds and the economic, financial, and technical efficiency carrying out periodic audits, investigations and control on site. In addition, there are three other external governance bodies: Remuneration Committee, which has the duty of establishing the remuneration of the Chairman and the General Director; Ethics Committee, which supervises the implementation of the Code of Ethics, and the Audit committee was instituted through the presidency, with the mission of strengthening the internal and external levels of control and consolidate the governance.

Internal and external accounting control procedures are designed to ensure that TELT's books, records and financial statements are not used to conceal acts of corruption or political patronage.

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3.2 Consortium set-up, governance and organisational structure

Consortium cooperation and division of roles and organisational structure

Describe the organisational structure set up to implement the project.

In particular, explain the distribution of roles and responsibilities between the different partners (Beneficiaries, Affiliated Entities and Associated Partners, if any).

Describe the main contractual arrangements, the governance structure, the lines of communication and decision-making processes. Describe if the governance bodies have already been established; if members have been nominated and the status of approval of the governance rules. List any pending decisions on the organisational structure.

If a special purpose company/vehicle (SPC/SPV) is envisaged, indicate whether a shareholder agreement has already been prepared. If not yet, the case, indicate where you are with the finalisation of the agreement.

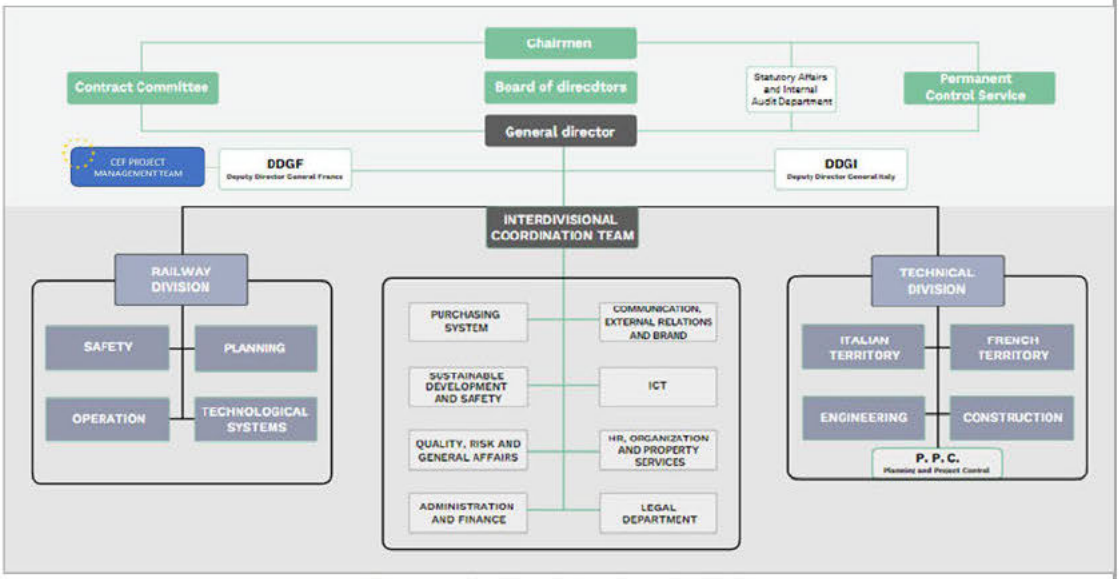
TELT is a simplified joint stock company governed by the Agreement of 30 January 2012 between the Government of the French Republic and that of the Italian Republic for the management of the construction of new Lyon-Turin railway line, constituted under French law and it has its registered office in Chambéry (France) and head office in Turin (Italy). TELT is responsible for the design, realisation and operation of the cross-border section and it will be in charge for the management and operation of the Frejus historical line.

The main mission of TELT is decided in two phases, the first one which aims at the realisation of the project and the construction of the railway infrastructure, and the second one which focus on the management, maintenance, and traffic management of this infrastructure when operational.

TELT is divided into main bodies that monitor and govern the realisation of the project. At the top level of the organisational model of TELT there is the Board of Directors and the General Assembly.

Apart from these bodies, there are two external control bodies, which are the Contracts Commission and the Permanent Control Service. The Contracts Commission was established by the Article 7 of the Treaty of 30th January 2012 as a specific body in charge of awarding contracts in respect of the European Directives on public contracts carefully respecting the principle of best value for money and sound financial management. The Permanent Control Service (established under Article 8 of Treaty of 2012) is a control body composed by 12 experts appointed by the Italian and French governments and it supervises the implementation of the project and more generally, the operation of the company. It ensures the proper use of public funds and the economic, financial and technical efficiency carrying out periodic audits, investigations and control on site.

From an operational point of view, TELT is organised into main divisions and all of them are committed and involved in the realisation of this project. From a technical point of view, the technical division is responsible for implementing the works of each Operating Construction site. More specifically, it is applied a management system of vertical efficiency leaders in each Operating Construction site that are supported by two coordinators in both France and Italy, to also ensure the horizontal efficiency with the sharing of best practices and the capitalisation on both sides of the work. Following, the newly established railway division directed by the Deputy Director General in France, which aims at steering the activities of planning and defining the technical systems for safety and railway operations. Finally, one of the main divisions constitutes the Interdivisional Coordination Team which focus on the company's priorities and overall schedule.



The organisational structure of TELT

This Grant will be managed by a Project Management Team (PMT) under the responsibility of the Financial Division, and it will consist of an appointed Project Manager, various technical managers of the Beneficiary who are responsible for the coordination and management of the project and of its Work Packages, as well as top management representatives who will ensure the compliance with the terms of the Grant Agreement. All the project management activities include the coordination activities with Associated Partners, namely the French Ministry and the Italian Ministry for Infrastructure and Transport (MIT), necessary for the implementation of the project in line with the Grant agreement. These activities will

ensure the coherence of the implementation of the project as per the Grant Agreement with the TELT annual works plan.
In addition, the Commissione Intergovernativa franco-italiana (Franco-Italian Intergovernmental Commission — IGC) was set up on 15 January 1996 to follow on behalf of the governments, the issues relating to the preparation of the construction of the Montmélian-Turin international section of the new freight-passenger railway line Lyon-Turin.
The IGC has evolved and been updated by including in its composition — which was initially only governmental — the Regions (Piedmont and Auvergne - Rhone Alpes) and the European Commission (the coordinator of the Mediterranean Corridor, Iveta Radicova), in the strong conviction that the Lyon-Turin line is a fundamental piece of the trans-European rail network and an essential contribution to the ecological transition of our economies, our transport systems, our societies.

The IGC has therefore been the technical, legal and financial forum that has accompanied and prepared the Summits, Agreements and International Acts approved by the Italian and French Parliaments over the last 20 years; it is a journey that began in 2000, the most recent act of which was the Italy-France Treaty in force since 1 March 2017 for "the start of the definitive works of the Cross-Border Section of the New Lyon-Turin Railway Line". Its tasks of guiding, supervising, and controlling the construction and management of the work have also been integrated and updated in the various international agreements and acts between Italy and France and the resulting Ratification Laws (2001, 2012, 2017). The IGC was assigned the task by the two countries of presiding over the activities necessary for the definition, construction and management of the Lyon-Turin railway line, exercising, on behalf of the states, firstly the functions of guidance, study, in-depth analysis and elaboration, and then, with the establishment of the Public Promoter, of supervision and control over its activities in the project preparation phase, the execution of preliminary works and now in the phase of contracting and construction of the work.

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3.3 Project management, quality assurance and control procedures

Project management, quality assurance and control procedures

Describe the methods to ensure good quality, monitoring, planning and control for the implementation of the project. Explain the main features of the quality assurance plan and quality control system that will be used.

TELT has established an Internal control and management system which precisely sets the organizational structures, standards and internal rules that permit a correct and coherent management of the Company's tasks and responsibilities. The quality of the procedures and the relative control systems are established since 2017, under an Integrated Quality Management System and a Quality, Risk and General Affairs Department is established for this purpose. The project management team will be responsible for ensuring the compliance with the Integrated Quality Management System for all the tasks covered by this Grant.
The Integrated Quality Management System is certified by [redacted] which is French [redacted], in accordance with ISO 9001:2015 (Quality), ISO 14001:2015 (Environmental Management Systems), ISO 45001:2018 (Occupational Health and Safety) and ISO/IEC 27001:2017 (Information Security Management Systems). TELT has also obtained some certifications concerning the UNI EN ISO 9001, UNI EN ISO 14001 or Equivalent, OHSAS 18001, UNI EN ISO 27001, UNI EN ISO 45001, ISO 50001, ISO 37001, QUALIBAT, MASE/France Chimie Joint System Certification n°RA 2020-070 (asbe stos and lead decontamination).
Considering the public nature of the project and the resources available for its implementation, TELT's organisation, management and control model pursues excellence through:

- the quality of the organisation (effectiveness and efficiency in the regulation of activities);
- the ethical nature of all operations (compliance with "corporate values" in particular to with regard to legality – in managing its activities).

Against the backdrop of these general guidelines, however, as mentioned TELT is also aware that it is responsible for the realisation of a project that is the subject and symbol of a dispute that has often transcended the nature of a railway infrastructure: for this reason, it has equipped itself with a system capable of going beyond a simple albeit indispensable capacity, to include administrative-managerial efficiency and strict compliance with regulations, while also embracing the essential requirements of attention to the local territories, respect for local communities and additional sensitivity to the professional environment, defining, in the light of these multiple requirements, the main thrusts of its management policy:

- rigour in planning by taking as a strategic pivot the fulfilment of the objectives of the Grant Agreement;
- major contracting role with full assumption of this task on behalf of the states (after completion of the project phase) through the transparency of the actions, the fight against fraud and corruption, the quality of contracts, the safeguarding of competition and the reduction of risks (also with an appropriate insurance strategy);

- centrality of work and safety, starting with the safety of workers, first and foremost on construction sites and in offices (with the goal of 'zero mortality'), but more generally by considering every nature of activity (with particular attention also to data security, a safeguarding of privacy);
- commitment to the environment by considering not only the effects of the anthropisation generated by the work, but also human and social relations, with the aim of not only avoiding "reducing value(s)" from the territory but indeed of "creating value(s)" from a local and binational perspective.

These principles represent the strategic input to allow the individual Departments to seek a specific level of cultural initiative, each within its own context, with a multidisciplinary scope and considering the relationship with the local communities to be natural and diary, based on consultations in the designated offices (Patto per il Territorio in Italy and Démarche Grand Chantier in France). TELT's general policy is expressed in company policies published on the company's website, such as the quality system policy, environmental policy, worker safety policy, information security policy, personal data processing policy, human resources policy, procurement policy and anti-fraud and corruption policy. These requirements are essential for TELT, but instead of being considered as objectives to be achieved, they become the standard starting points for a higher level of cultural legitimacy, which has at its heart the challenge of "multidisciplinary excellence" and the search for "added value" in all fields, from social to the environment, from landscape to technology, from training to safety.
In addition, the international agreements of 2012 and 2015 stipulate that in order to combat mafia infiltration, TELT is obliged to apply an extremely strict set of Contract Regulations that reconciles the procedure of Italian anti-mafia controls with the supplier assessment provisions of risk mapping, and anti-corruption, of procurement law.
Finally, In the innovation process, following international best practices guiding safety management on construction sites, such as "Participatory Safety," it is crucial to plan actions and initiatives aimed at empowering workers to take an active role in their own safety. This should occur within a collaborative environment that facilitates the active involvement of various stakeholders in managing procedures. The objective of these activities is to transform safety and health management on the construction site by fostering widespread awareness of procedures and risks associated with the work, extending from the construction hierarchy to each individual worker.
A pivotal component for implementing a "Smart Construction Site" will be the synergy between information digitization, web platforms, and cloud storage. In this way, TELT's representative on the construction site, equipped with a tablet or smartphone running the necessary applications, can interact and directly access pertinent information. This includes systems for access control, transportation of materials and personnel, logistics management, fire prevention systems, and more. Construction sites are already equipped with systems ensuring power supply continuity, machines with automatic or remote guidance, advanced solutions for Tunnel Boring Machines (TBM), as well as continuous monitoring of occupational health and safety (OHS) for dust, quartz, asbestos, gas, and radiation.

Furthermore, attention is given to microclimate and comfort management, incorporating dust removal systems, temperature and humidity control, rest areas, dining facilities, and other personnel services, as recommended by ISO 45001.

Finally, the project management activities include the coordination activities with Associated Partners, namely the French Ministry and the Italian Ministry for Infrastructure and Transport (MIT), necessary for the implementation of the project in line with the Grant agreement. These activities ensure the coherence of the implementation of the project as per the Grant Agreement with the TELT annual works plan.

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3.4 Risk management

Risk management methods and procedures

Explain how risk management is part of your project management approach and how you address risk management in general. Mention only methods and major elements (details are to be provided in the risk assessment grid below). Indicate whether a risk management plan is in place and explain its main features.

The Internal Risk Monitoring and Management System (SCI-GR, Sistema di Controllo Interno e di Gestione dei Rischi, SCI-GR) is a crucial point in the governance of TELT. The SCI-GR is based on a preventive approach and is one of the tool that helps the governing bodies to take decisions.
Risk Management is related also to the compliance with ISO 9001 international quality certificate. Risks are evaluated in the framework Integrated Quality Management System of TELT. In particular, since September 2017, risk management has become part of the Integrated Quality Management System (SGI, Sistema di Gestione Integrato) related to Quality, Environment, Occupational Safety and Data Security. The first four priority risk analyses for TELT were completed In November 2017, in the fields of Environment, Safety at work, Corruption and Contracts. These risk analyses were devoted to identify the main critical elements with potential impact on TELT's activities as well as, the mitigating measures and

the risk response plan. In general, the risk management process is based on the PDCA (Plan-Do-Check-Act) method. In addition, the risk management system is based on three levels. The first level is the most important because it covers 100% of the activities, has a preventive measure and relates to diary works activities carried out by all the professionals in the realization of this project. In fact, all the professionals are trained to identify promptly potential risks impacting on their activities and they are fully aware of the rules and recommendations of the Internal Risk Monitoring and Management System.
The second level of risk control, with particular attention to the risk families that TELT has prioritized, is attributed to the Risk Manager of TELT with the support of additional second level control functions od other departments of TELT. These functions are independent and must monitor the compliance with the guidelines, standards and rules established, identify and assess the risks and propose the actions to be taken to eliminate or mitigate them. Finally, there is the third-level role under the responsibility of the Permanent Control Service, the Contract Commission and the Ethics Committee: these three bodies carry out an independent process to assess, define and develop the strategies, operations and mitigating measures related to the risk management in order to ensure the continuous improvement of the organization.
For construction works various risks are potentially impacting on the proper achievement of the objectives, and among them we point out the following ones:

- Accidents occurred during the works.
- Delays in the supply of raw materials.
- Environmental risks due to the Geology.
- Failure to comply with the terms of the contract by the contractors.

In addition, TELT has endowed an insurance policy based on an "all risk" approach, covering any civil and environmental liability for damages caused during the implementation of the project. Contractors are also applying rigid protocols for the risk management.

Risk assessment grid

Describe critical risks, uncertainties or difficulties related to the implementation of your project, and your measures/strategy for addressing them. Include significant risks, factors of uncertainty and major elements of complexity that may affect the project implementation, whether of political, institutional, financial, organisational, social and/or technical nature.

Indicate for each risk (in the description) the impact and the likelihood that the risk will materialise (high, medium, low), even after taking into account the mitigating measures.

***Note:** Uncertainties and unexpected events may occur in all organisations, even if very well-run. The risk analysis will help you to predict issues that could delay or hinder project activities. A good risk management strategy is essential for good project management.*

Risk No	Description	Work Package No	Proposed Risk Mitigation Measures
1	Risks related to tendering procedures (Legal dispute initiated by tenderers, delays in the launching and awarding of the tender, lack of valid offers etc.). Impact: medium Likelihood: medium	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	Constant monitoring of the gantt chart of the project and anticipation of procedures when possible. Integration of the procurement team by external experts. In case of legal dispute, make a claim to an out-of-court dispute resolution system and opt for a legal resolution only as last resort. Update of the value of the contracts if needed (inflation, price of the raw materials, use of official price list.) This risk is under control by the administrative department, the procurement department and the general management of TELT.
2	Environmental risk impacting on the construction works (unexpected externals conditions during the excavation, e.g. dangerous material, subsoil waters) Impact: high Likelihood: medium	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	Geotechnical campaigns constantly updated during the construction works, constant environmental monitoring of the construction site and dedicated budget line (CO 00). Rigid protocols applied by the contractors. Constant updates on the safety and security protocols on the basis of the conditions of the environment. Specific site for the storage of dangerous materials are foreseen. This risk is under control by the technical department and the general management of TELT.

3	Missing of data impacting on the operating aspects and need to update the design studies Impact: medium Likelihood: low	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	The Beneficiary implements other methodologies to gather the required information and eventually implements ad hoc surveys This risk is under control by the technical department and the general management of TELT.
4	Delays in the realization of the construction works if compared with the timeline of the Gantt chart Impact: high Likelihood: medium	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	Constant update and monitoring of the Gantt chart of the Operating Construction Sites so to permit to eventually reschedule the tasks. The staff of professionals and the pool of external contractors responsible for the realization of this initiative are aware of the rules and of the rigid timeframe of the project. Periodic project meetings at all levels (institutions, contractors, top management etc.) will be organized to monitor the status of the Project. This risk is under control by the technical department, administrative department and the general management of TELT.
5	Damages or failures of the equipment and technical materials during the construction works causing delays Impact: high Likelihood: medium	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	Penalties included in the contracts for damages and failure depending on the causes (maintenance). Immediate substitution of material of guaranteed by legal clauses in the conctracs. This risk is under control by the technical department, administrative department and the general management of TELT.
6	Unexpected geological characteristics during the excavation causing delays Impact: high Likelihood: medium	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	Geotechnical campaigns constantly updated during the construction works, constant environmental monitoring of the construction site and dedicated budget line (CO 00). Rigid protocols applied by the contractors. Constant updates on the safety and security protocols on the basis of the conditions of the environment. Specific site for the storage of dangerous materials are foreseen. This risk is under control by the technical department, administrative department and the general management of TELT.
7	Security issues Impact: low Likelihood: medium	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	Extended protocols with police and military forces to ensure the regular flow of works. This risk is under control by the technical department, administrative department and the general management of TELT.
8	Risks related to the availability of space for the Operating Construction Sites Impact: medium Likelihood: low	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	Procedures and protocols for implementing public authorities decisions related to the use of space for the realization of the project. This risk is under control by the technical department, administrative department and the general management of TELT.
9	Financial risk Impact: high Likelihood: low	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	Constant update and revision of the project budget on the basis of the actual progress of the construction works and negotiation with the involved institutions (French, Italian Governments and European commission)

			This risk is under control by the administrative department, the procurement department and the general management of TELT.
10	Accidents occured during the works Impact: high Likelihood: low	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	TELT is aiming at 0 accident policy through various measure: constant monitoring by the technical department to ensure the compliance with the Safety and Coordination plan. Continuous updating of the Safety and Coordination plan. Costs for safety and security determined by the Safety and Coordination Plan can't be discounted during the tendering process. Coordinate with Administration and Personnel to implement inspections and enforcing the respect of the relevant law on safety by the contractors and suppliers. This risk is under control by the technical department, administrative department and the general management of TELT.
11	Failure to comply with the terms of the contract by the contractors Impact: high Likelihood: low	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	Possibility of termination of the contract for non-fulfilment or failure of the contractor in the execution of the contractual terms. The contractors are required, as part of any tender response, to provide details of the current financial position, capacity to undertake the project being tendered, current projects in terms of any programming delays or cost overruns. This risk is under control by the administrative department, the procurement department and the general management of TELT.
12	Increase in material prices Impact : high Likelihood : Medium	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	Continuous monitoring of the raw material market; Negotiating fixed contracts for an extended period; diversifying sources of supply; using contractual agreement with suppliers to limit escalation; adaptation of the contracts in case on the bases of regulatory provisions. This risk is under control by the administrative department, the procurement department and the general management of TELT.
13	Delays in material delivery Impact : high Likelihood : Medium	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	Accurate planning of procurement timelines; reserve essential materials in advance; close collaboration with suppliers to monitor timelines; Identification of alternative suppliers. This risk is under control by the administrative department, the procurement department and the general management of TELT.

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3.5 Communication and visibility

Communication and visibility

Describe the communication plan and strategy to provide visibility to the EU funding (e.g. billboards, reports, websites, brochures, information leaflets, reports, factsheets, newsletters, press articles, presentations).

Provide the websites being used for this purpose, the Social Media accounts and the communications' contact person.

***Note:** Please note that we will no longer pay for project websites which are not hosted on participants' websites; costs for separate project websites are no longer eligible.*

The scope of the project encompasses a multitude of actors and stakeholders. The intense media attention surrounding the project requires the dissemination of fresh and regular contents concerning the promoter's activities on relevant issues, such as the construction sites, the environment and daily impacts. In collaboration with the other TELT departments, the Communication department acts in both Italian and French side, taking into account the specificities linked to the territories, which require a strategic and localised approach.
Communication is a key aspect, particularly for a company like TELT, a public promoter and coordinator of this project proposal. The company's positioning in Europe allows it to effectively communicate its values and competencies as well as the status of its construction sites through an annually planned communication strategy. Collaboration and Innovation have always been at the heart of TELT's activities. Constructing large infrastructure works is by definition a collaborative undertaking, requiring the interaction of multiple institutions, companies, professionals. In addition, major works are complex, long-term projects for which continuous updating of practices and techniques to the best state of the art available on the market is necessary. Only with the constant search for excellence can the environmental, economic and social sustainability of the works realized be guaranteed and the use of the resources made available by the States and Europe be made more efficient. Round tables, in-person and virtual meetings with other companies, research centers or institutions, in order to share experiences, techniques and working methodologies on concrete topics at various levels of professionalism, from management to operational experts, are essential. Among the various permanent activities carried out by TELT for the promotion of the new Turin-Lyon axis we mention the following.

Forum	Topic	Collaboration
1 [redacted] / [redacted]	Business models and railway safety	Memorandum
2 [redacted]	Safety and Security aspects	Memorandum
3 [redacted]	Various	Memorandum
4 [redacted]	Various	Memorandum
5 [redacted]	Safety and Security aspects	Memorandum
6 [redacted]	European project management	Memorandum
7 [redacted]	Sicurezza e Security	Round tables
8 [redacted]	Various	Round tables
9 [redacted] / [redacted]	Various	Round tables
10 [redacted]	Tunneling	Round tables
11 [redacted]	Plants and maintenance	Events
12 [redacted]	Tunneling	Events
13 SIFER	Tunneling	Events
14 Workd Tunnel Congress (WTC)	Tunneling	Events
15 Expo Ferroviaria	New mobilities	Events
16 Innotrans	New mobilities	Events
17 Smart City Expo World Congress	New mobilities	Events

TELT Participation to round tables, events and dissemination forum

Participation in international public events, fairs and congresses in Europe, in order to tell the world about TELT's project and to monitor technological and regulatory developments in the field of transport and tunnelling construction. TELT has always been present at many international congresses such as: [redacted]-WTC-SIFER-EXPOFERROVIARIA-TEN-T DAYS, promoting European values and projects. The following images are showing some of the stands realized by TELT in the past years.

TELT Participation to public events with dedicated areas

For these reasons, within this project, special attention will be given to ensure publicity and transparency for CEF funding informing the public of the role of the European Union in the implementation of the project, through planning in a project's Communication Strategy the communication objectives and the communication activities and tools tailored on the target groups to be reached during the course of the implementation.
Dissemination will be a core part of it, to ensure that the wider group of stakeholders and the beneficiaries will be reached by information on the benefits of the project, and the results obtained.
Communication and visibility activities come at no costs for the CEF programme, as they will be performed within the regular activities of TELT internal staff.
According to the EU specific rules, any report, brochure or other documentation connected with the project will mention the EU co-funding through the CEF Programme thus ensuring visibility (please see below).

Co-funded by
the European Union

The funding received will also be emphasized in corporate intranet sites and further visibility would result from publication of the approval of co-financing through press release and on local and national media.
An information page on the progress of the operation will be created on the institutional site of TELT available in French, Italian and English - *https://www.telt-sas.com/en/telt-homepage/*

A communication plan will define the additional events to be realized during the course of the project to disseminate the project results.

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3.6 Sustainability and maintenance strategy

Sustainability and maintenance *(for Works topics)*

Describe the follow-up of the project after the EU funding ends. How will you guarantee the proper maintenance and continued operation of the investments made?

Describe in detail the strategy (periodicity, components, financing, actors) and practical measures that will be put in place.

Sustainability policies of TELT: The applicant has issued a three-year 2022-[redacted] Sustainability Plan approved by the Board of Directors. It represents TELT's strategic vision of sustainability which corresponds to some of the global challenges (United Nations Sustainable Development Goals, or European Sustainable Development Goals) and underlines the commitments made by the Promoter, through the Integrity and Sustainability Pact, into measurable qualitative and quantitative objectives. The main challenges and objectives that TELT has set through this Plan are the participatory planning, the minimisation of land consumption, the optimisation of the use of excavated materials, the quality of the works, the improvement of working conditions in the Operating Construction Sites and safety, the environmental protection and the valorisation of the territory's cultural heritage. To reduce greenhouse gas emissions, it is first necessary to be able to quantify them. The impacts of the works were calculated using the Carbon Footprint®5, which responds to this logic by proposing a method of estimating the greenhouse gas emissions induced by an activity or project over the entire life cycle.
In addition, TELT publishes periodically Sustainability Reports according to the most updated international and European standards.
To reinforce this intent, TELT has since 2018 adopted a shared French-Italian Environmental Policy that aims to promote a sense of responsibility towards the protection and preservation of the environment and to share the same values with external firms that are called upon to work for TELT, essential partners

for the achievement of the objectives. In line with the objectives defined in the Environmental Policy, TELT continuously pays great attention to the territories crossed by the works, committing itself to bringing added value in particular in terms of biodiversity and implementing a vast programme of measures to benefit protected species and habitats. Flora and local ecosystems are another of the environmental aspects of particular importance to the Company. Moreover, during the course of 2022, TELT has continued its relationships with universities and research organisations, inaugurating joint study projects on the themes of innovation, sustainability and economic development. The management of the excavated materials constitutes also an activity that promotes the sustainability goals of the project as it has an objective the 60% reuse of the materials and the exchange of them between the French and Italian side (MATEX Agreement).
Maintenance Strategy of TELT: Once operational the base tunnel will be managed and maintained by TELT in its role of infrastructure manager, the transfer to this role is preparatory to the amendment of the agreement on the management of international stations. TELT will manage the historic line and the new line, with great synergies in terms of planning of the interventions for all ordinary and extraordinary maintenance. The applicant will implement a maintenance strategy according to the latest and most updated international and European railway standards. Maintenance Plans have been issued together with all the designed studies.
Maintaining an infrastructure as significant as the Euralpin Lyon-Turin Base Tunnel is a complex and costly endeavor. However, it is essential for ensuring safe and efficient operation of this critical transalpine connection. A robust maintenance plan can help prevent unexpected failures, reduce downtime, and extend the infrastructure's lifespan. It is crucial for the competent authorities and railway operators to allocate adequate resources for regular and preventive maintenance of the tunnel and its associated systems.

Tunnel Maintenance
The tunnels traversing the Alps are exposed to extreme weather conditions, including freezing temperatures, heavy snowfall, and ground movements. Regular maintenance is crucial to ensure their safety and accessibility. This should encompass:
- Regular Inspections: To identify any structural damage or water infiltration issues.
- Routine Cleaning: To remove debris and snow accumulation, maintaining clear passages.
- Constant Ventilation Monitoring: To ensure the air inside the tunnel remains safe to breathe.
- Road Surface Inspection: To guarantee the road surface is in good condition without potholes or defects.

Railway Systems Maintenance
The maintenance of the railway infrastructure within the tunnel is vital to ensure the safe operation of trains. This should involve:
- Rail Inspections: To detect rail wear and assess the need for replacements.
- Maintenance of Signaling and Traffic Control Systems: Ensuring safe and efficient train operations.
- Monitoring of Power Supply Systems: To prevent power interruptions.

Maintenance of Tunnel and Railway Equipment
3. Tunnel Equipment: The tunnel is equipped with various systems, including lighting, ventilation, safety, and communication. Maintenance of these systems is paramount for safety and efficient tunnel operation. This includes:
- Regular Lighting Inspections: Ensuring proper functionality.
- Ventilation System Maintenance: To maintain clean and well-circulated air.
- Safety System Checks: Such as fire prevention systems to ensure they are operational.
- Continuous Monitoring of Communication Systems: For reliable connectivity between tunnel personnel and trains.

Regular maintenance will not only enhance safety but also optimize the operational efficiency of this fundamental transcontinental link.

In addition, it's imperative to recognize that the journey doesn't conclude with construction. The long-term success of this fundamental infrastructure is based on a commitment to extraordinary maintenance. Ensuring the ongoing safety, efficiency, and sustainability of the railway demands a strategic and consistent approach to extraordinary maintenance. This involves vigilant inspections, prompt repairs, and the continuous adaptation of maintenance protocols to evolving technologies and environmental conditions. The foresight applied in the project's planning and execution must now extend to its post-construction phase, solidifying the Turin-Lyon railway as a model not only for thoughtful development but also for responsible and effective maintenance practices.

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4. IMPACT — COST-BENEFIT ANALYSIS

4.1 Demand analysis

Demand/traffic forecast study

Provide the results of the demand/traffic forecast study (if any). Give an outline of the overall context (including date of completion) and scope of the study, explain the methodology chosen and the assumptions made regarding the demand growth rate and the utilisation rate on completion of the project. Provide the list of indicators and their sources of verification (e.g. institution or organisation collecting statistical information, website, database, etc.). If the study carried out goes beyond the scope of the project, give an overview of the demand analysis of the global project and explain how it is related to the project. Clarify if TEN-T/CEF or other EU programmes have provided financial support for the study.

TRAFFIC FORECAST APPROACH

The determination of traffic volumes has been carried out sequentially in terms of demand projection (mobility evolution) and traffic distribution by alpine crossings (diversions and inductions). These steps are applied separately to the reference situation and the project variants.

The calculation of the evolution of mobility is based on the assumption of a linear statistical link between the change in real GDP (constant euro) of France and Italy, and that of passenger and freight transport volumes. This evolution of mobility is expressed in average annual growth rate and applies from the base year 2015. The constructed demand model takes into account also:

- **Time- or price-related traffic shifts**, based on the assumption of a punctually linear statistical link (arc elasticity): (i) between the price/time variation of a mode and its traffic variation: this is then a so-called "direct" elasticity; (ii) between the price/time variation of a mode and the traffic variation of a competing mode: in this case, this is a so-called "cross" elasticity.
- **Capacity constraints of road tunnels and urban motorways**, on the basis of the speed flow curves used in TELT's freight transport studies[3].
- **Capacity constraints of passenger rolling stock**; assumptions for the number of long-distance passenger services for the different stages are detailed in the description of the scenarios considered on the Alpine crossing and its access (see CBA Report);
- **Capacity constraint of freight train paths**; the freight capacity assumptions for the various stages are also detailed in the description of the scenarios considered on the Alpine crossing and its access (see CBA Report); a transfer of traffic from rail to road shall be applied for each year, corresponding to the new traffic of the year which cannot be traced within the limit of capacity expressed in number of paths;
- **Induction of passenger traffic and Induction of freight traffic**: shifted flows from outside the perimeter;

To establish traffic forecasts, an elasticity set was extracted from the comprehensive studies conducted between 2006 and 2011 in order to represent the price and supply sensitivities of demand by mode at levels estimated by previous statistical analyses (see CBA Report for elasticity parameters). Various adjustments have been made to the elasticity estimates used in the 2019 evaluations in order to take into account more precisely the effects of the project:

➔ Distinction of freight and passenger modal shift elasticities vis-à-vis the road price on the Mont Blanc/Fréjus axis on the one hand and on Ventimiglia on the other. The elasticity on Ventimiglia is aligned with the estimates of the CGDD in the plain (Projection of transport demand over the long term, 2016);

➔ Hypothesis of gradual amplification of passenger modal shift elasticities vis-à-vis road or rail prices after [redacted] according to the trajectories given by [redacted] (Modal choice criteria in rail transport, [redacted] 2018);

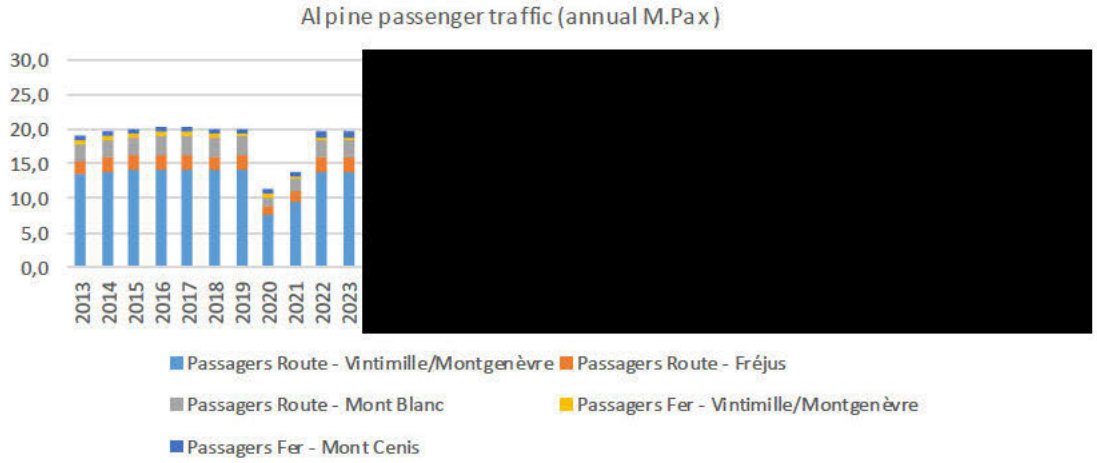
➔ Change of basis for the calculation of the induction of rail passenger transport in a project situation, based on the traffic of the reference situation and not from the total unconstrained run-of-river potential, consistent with the link between service differential and traffic gain.

TRAFFIC FORECAST RESULTS

According to the macroeconomic and forward-looking assumptions previously established, the projection of total passenger transport demand on the Western Alpine arc shows a gradual recovery of mobility after the significant decline in 2020 and 2021 due to the COVID-19 crisis and health restrictions. While the market showed very modest growth between 2009 and 2019 (+0.2%/year), the period 2021-[redacted] preceding the commissioning of the base tunnel and the first part of the accesses would see more

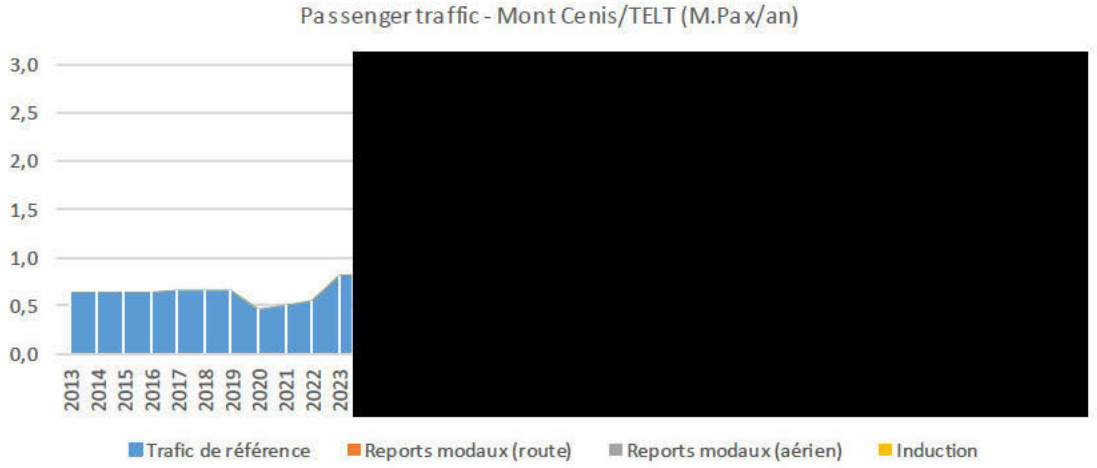
[3] PRELIMINARY DRAFT REVISION, SUBMISSION N 41, Passenger traffic study, TELT, 20/12/2010; PRELIMINARY PROJECT REVISION, SUBMISSION N 46, Freight traffic forecasts, TELT, 21/01/2011

marked growth (+1.5%/year) in line with the various national and European recovery plans. The year [redacted] would see a renewed mobility linked to the launch of new high-speed services on the new line (+5%), followed by moderate growth of 1%/year until [redacted]



Passenger traffic forecast over the western Alpine arc (annual M.Pax) (source: [redacted] 2023)

Passenger rail traffic on the Mont-Cenis axis (new and historic line) would experience a gradual recovery between 2022 and [redacted] with a stabilization between 600 and 700,000 pax annually limited by the number of services deployed on the line. From [redacted] half of the gain in rail passenger traffic would be spread over modal shifts (road and air) and half to induction related to new services deployed. The expected growth (excluding the ramp-up of services) would make it possible to exceed 2.0 M.Pax annually and to reach 2.5 M.Pax annually around [redacted]. In the absence of the deployment of new services or changes in service levels in the medium term, traffic would remain stable between [redacted] and [redacted] The corresponding growth rate between [redacted] and [redacted] would be slightly higher than 2.0%, i.e. in the light of the overall evolution of mobility on the axis.



Forecast of rail passenger traffic on the Mont-Cenis axis (M.Pax/year) (source: [redacted] 2023)

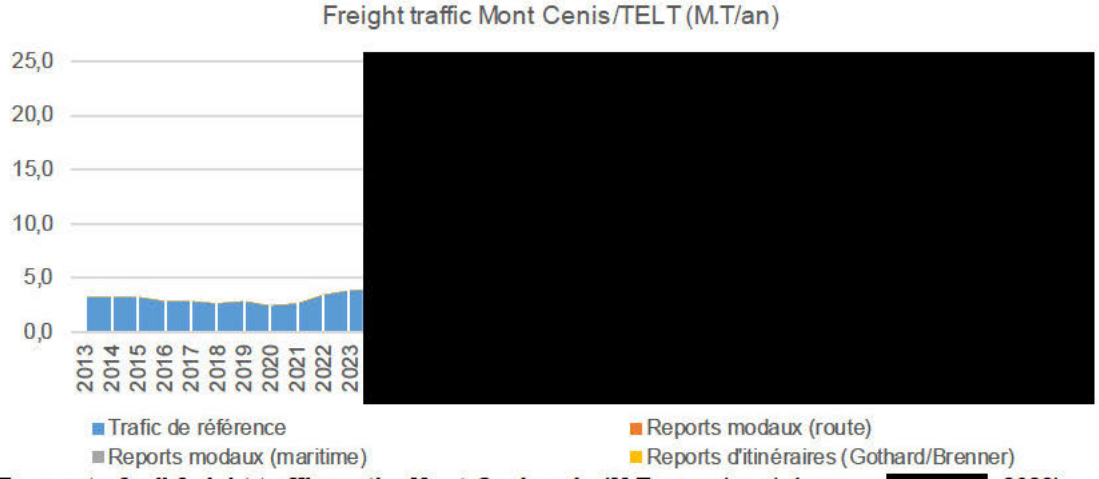
As for freight traffic, the new prospective trajectory defined by integrating the COVID-19 crisis makes it possible to propose a possible evolution for freight traffic on the western Alpine arc: the years following the trough of activity in 2020 take up the orientations given by the recovery policies, and the forecasts for the growth of economic activity with an average growth rate of 1.6% between 2019 and [redacted] In [redacted] freight transport is expected to increase more significantly (+2.5%) due to the attraction of new markets not previously present on the western arc, combining for example routes via the new line and the Gotthard tunnel. Beyond [redacted] the overall growth of freight transport in the western Alpine arc would follow a steady growth rate of 1.3% per year.

Freight traffic forecast over the western Alpine arc (annual MTonnes) (source: [redacted] 2023)

Forecasts for freight transport by rail on the Mont-Cenis axis (new and historic line) also show a recovery after 2020 with a sustained slope of 12%/year to exceed its historical high point of 2006 in [redacted] before the commissioning of the base tunnel, mainly in anticipation of the deployment of a line to European standards.

The level in [redacted] is very important with a 1.7-fold increase in rail traffic, with average loads and rapidly optimized traction conditions. 90% of this new traffic would consist of modal shifts from the road mode, and 8% of shifts or combinations of routes with other Alpine tunnels (mainly Gotthard).

Carry-overs from the marine mode would remain marginal throughout the operating period. After [redacted] rail traffic would grow continuously at 2.3%/year at a faster pace than the overall market in the western Alpine arc, reaching 20 MT after [redacted]



Forecast of rail freight traffic on the Mont-Cenis axis (M.Tonnes/year) (source: [redacted] 2023)

4.2 Economic and financial analysis

Socio-economic impact analysis

Describe the general socio-economic impact of the project.

Describe whether the project (or the wider global project) has the potential to generate cash revenues, and what are the limitations (legal, regulatory, or commercial, if any), that constrain the revenues generation to the levels you have estimated.

Provide details on the expected revenues and their timeline (e.g. number and diversity of users). Describe if the users are sensitive to prices and if they are captive. Provide indications concerning the degree of certainty of your

assumptions and estimations. Explain whether the project will operate in an autonomous manner or whether the expected level of revenues depends on the completion of additional investments or processes.

For Works proposals required to submit a full CBA, describe the main results of the economic analysis of the cost benefit analysis (Economic Rate of Return (ERR) and Economic Net Present Value (ENPV). If the scope of the economic analysis addressed by the CBA is wider than the scope of the project, explain the difference in scope between the CBA and the project and to what extent findings of the CBA are relevant to the project. Please upload the CBA report and the CBA cash flow template filled in.

For Works proposals required to submit a simplified CBA, provide information under this section and submit the simplified CBA calculator filled in. No need for a separate CBA report.

For the CBA report, please use the unitary values referred to in the Handbook on External Costs of Transport.

Note:

For more guidance on CBA, see CINEA Guide on economic appraisal for CEF Transport Projects, DG REGIO Guide to Cost-Benefit Analysis of Investment Projects and DG REGIO CBA Economic Appraisal Vademecum.

The full CBA for the Global Project is presented in detail in the attached CBA Report. The following data recap the main outcomes of the economic analysis.

In order to ensure consistency within the analysis, all amounts in the CBA have been computed in constant €2023 values; figures stemming from estimations made in previous years have been converted into 2023 values by means of the application of the NLTL Index. NB: the figures in the tables in this box come from the application of appropriate factors to convert financial costs into economic costs.

The net present values of the components of the economic analysis are as follows:

Components of the economic analysis (net present value, M€2023)

Component	Economic NPV (M€2023)
Capital expenditure, of which…	**-23 507**
…Alpine accesses - Italian side (connection to Turin and upgrade of Bussoleno-Avigliana 1st phase)	*-1 842*
[redacted]	*-574*
…Alpine crossing - TELT (preliminary and exploratory works)	*-2 284*
…Alpine crossing - TELT (base tunnel)	*-11 067*
…Alpine crossing - TELT (historical tunnel doubling avoidance)	*1 055*
[redacted]	*-5 027*
…Alpine accesses - Italian side (Bussoleno-Avigliana 2nd phase)	*-1 236*
[redacted]	*-1 105*
[redacted]	*-929*
[redacted]	*-497*
Operating expenditure, of which…	**2 238**
…Railway operation and maintenance	*-1 304*
…Road operation and maintenance (passengers)	*409*
…Road operation and maintenance (freight)	*3 133*
Economic benefits and costs, of which	**41 339**
…Passenger user surplus (time and costs)	*6 325*
…Freight user surplus (time and costs)	*22 037*
…Passenger external costs	*6 262*
…Freight external costs	*6 713*
Economic residual value	5 341
TOTAL	25 417

Source: [redacted] 2023

The socio-economic profitability indicators calculated for all the developments carried out (base tunnel and access) and their long-term effects ([redacted] and residual value over [redacted] lead to the conclusion that the project lies within socio-economic convenience ranges; the sensitivity analysis (see the CBA Report for details confirms this outcome). To produce these indicators, for the record, the Italian parameters recommended by the Ministero delle Infrastrutture e dei Trasporti are applied (discount rate of 3%, opportunity cost of public funds of 30%).

Socio-economic profitability indicators

Indicator	Value	Unit
TOTAL ENPV	25 417	M€2013
TOTAL ENPV per invested euro	1,08	-
TOTAL ENPV per invested euro except european subsidies	1,20	-
EIRR	7,0%	-

B/C Ratio	2,60	-

Source: [redacted] 2023

Financial analysis

Describe the financial viability/sustainability of the project over its lifecycle (budget in balance; use of funds vs sources of funds).

For works proposals submitting a CBA, mention the value of the financial indicators after CEF funding (i.e. assuming that CEF support is granted for the amount requested (Financial Rate of Return FRR (C after CEF) and Financial Net Present Value FNPV(C after CEF)). Compare the profitability achieved after CEF funding with national and international benchmarks for the sector.

For projects with negative FNPV and with FRR smaller than the discount rate, explain why or under which conditions (e.g. other grants, reduction of costs) you would still proceed with the project despite its insufficient financial viability and illustrate how the project would be at least financially sustainable (i.e. not likely to default and therefore not putting at risk the commitment from the EU budget) by showing that the cumulated cash flows are always positive. Unprofitable/nonviable projects need to demonstrate their sustainability, for example by benefitting from other sources of support (such as national/local grants or operational subsidies) or revenues that can compensate negative cash flows or by the applicant's commitment and financial capacity to cover the remaining gap or absorb potential losses or accept deferral of profits.

Describe any financial risks associated with the implementation of the project.

The full CBA for the Global Project is presented in detail in the attached CBA Report. The following data recap the main outcomes of the financial analysis. The net present values of the components of the financial analysis are as follows:

Components of the financial analysis (net present value, M€2023)

Component	**Financial NPV (M€2016)**
Capital expenditure, of which…	**-17 928**
…Alpine accesses - Italian side (connection to Turin 1st and upgrade of Bussoleno-Avigliana 1st phase)	*-1 642*
[redacted]	*-504*
…Alpine crossing - TELT (preliminary and exploratory works)	*-1 986*
…Alpine crossing - TELT (base tunnel)	*-8 956*
…Alpine crossing - TELT (historical double tunnel avoidance)	*979*
[redacted]	*-3 773*
…Alpine accesses – Italian side (Bussoleno-Avigliana 2nd phase)	*-679*
[redacted]	*-627*
[redacted]	*-527*
[redacted]	*-212*
Operating expenditure	**1 342**
…Railway operation and maintenance	*-786*
…Road operation and maintenance (passengers)	*261*
…Road operation and maintenance (freight)	*1 869*
Revenues	**1 490**
Financial residual value	**2 163**
FNPV without subsidies	**-12 929**
Funding gap rate	**72,1%**

Source : [redacted] 2023

Components of the financial analysis including grants (net present value, M€2016)

Indicator	Financial NPV (M€2023)
FNPV without subsidies	-12 929
EU contribution - present submission (base tunnel)	2 326
FNPV with CEF contribution	-10 602
Other public subsidies (including previous EU subsidies)	15 601
…of which past European fundings (not discounted)	859
…of which road operation and maintenance costs savings	2 129
…of which other public contributions	12 613
FNPV with all grants	4 999

Source : [redacted] 2023

The financial profitability indicators calculated for all the developments carried out (base tunnel and access) and their long-term effects ([redacted] and residual value over [redacted]) show that the financing plan is based largely on public funding, both national and European. European funding is being used to complete the financing plan as follows:

1) Past European contributions are not enough to shift the net financial present value into a positive range.

2) The addition of the expected European contribution in this call for projects does not in itself shift the net financial present value into a positive range, as this grant is in relation to just over half of the eligible amounts of the cross-border section only.

3) Additional European funding on the remaining part of the cross-border section and on Italian and French access will be necessary to ensure the financial viability of the operation.

4) The other public subsidies are composed of European past subsidies, road operation and maintenance costs future savings and other future fundings to be defined from the Member States and the European Commission.

If we consider that all the funding is obtained, either at the national or at the European level, then the usual financial indicators are no longer relevant insofar as there is no equity capital mobilised on the project, and therefore no financial profitability of its own.

Financial profitability indicators

Indicator	Value	Unit
FNPV without subsidies	-12 929	M€2023
FIRR without subsidies	n/c	-
FNPV with EU subsidies (present submission only)	-10 602	M€2023
FIRR with EU subsidies (present submission only)	n/c	-
FNPV with all grants	4 999	M€2023
FIRR with all grants	>5%	-

Source : [redacted] 2023

4.3 Social, environmental and other impacts

Impact on congestion, modal split, safety and security, service quality, noise air pollutants

Describe the expected positive and/or negative impacts of the project on time savings, optimisation of existing capacity and service quality. If quantified in the CBA, mention the total monetary value of such impacts (€ Net Present Value (NPV)) and the main assumptions in terms of quantities (e.g. change in number of hours or vehicles) and unit values (e.g. €/hour or €/vehicle/km).

Describe the expected positive and/or negative impacts on modal split.

Describe the expected positive and/or negative impacts on safety and security. If quantified in the CBA, mention the monetary value of such impacts (€ NPV) and the main assumptions in terms of quantities (e.g. change in number of accidents, injuries and fatalities) and unit values (€/accident).

Describe the expected positive and/or negative impacts of the project on noise emissions. If quantified in the CBA, mention the total monetary value of such impacts (€ NPV) and the main assumptions in terms of quantities (e.g. change in number of trains) and unit values (e.g. €/train).

The project contributes to improve the safety and the Quality of rail services

Safety Improvement

The global project's rail system safety was analyzed in detail by a specialized committee of the Lyon – Turin CIG (Intergouvernamental Committee). Principles consistent with European and national legislations were defined and the specific risks of a number of situations and scenarios were analyzed and drawn up in a reference document entitled "Lyon - Turin CIG safety principle". A detailed risk analysis was also carried out to define reliability levels and identify critical interactions and the means needed to limit their effects and redundancies in terms of critical systems. The safety demonstration is based on the reference system definition, the statistical data available from French and Italian national infrastructure managers and from Eurotunnel, and the critical scenarios defined by the CIG in its "safety criteria". The acceptability thresholds used are the ones included in the Italian decree relating to "safety in rail access tunnels".

And finally, a safety validation process, based on a "Safety report", was drawn up to ensure the continuity of the safety measures taken throughout the project's life up to full-scale implementation.

Furthermore, **the impact of the realization of the project in terms of modal shift along the corridor has indeed a relevant beneficial effect on the safety of transport flows, shifting them from road to rail, decreasing the external safety costs of transport**. In the CBA, this is assessed along the entire reference period in monetary terms as bringing benefits, per type of traffic, as follows:

- Reduction of accidents in passenger flows: 120 M€
- Reduction of accidents in freight flows: 8,830 M€

therefore totaling benefits for almost 9 billion € in terms of increased safety of national and international transport flows.

1. **Improve the Quality of rail services**

The global project is technically designed to cope with a "design traffic" level equal to or higher than the traffic projections in the medium term. It will thus accommodate mixed rail traffic involving:

- High-speed passenger trains running at a speed of up to 250 km/h;
- Wide-gauge rolling motorway trains running at a speed of 120 km/h, with a maximum tonnage of 2050 metric tons;
- Conventional and combined transport freight trains running at speed of 100 and 120 km/h with a max tunnage of 1800 metric tons.

The ERTMS signalling system (level 2) provides a nominal operating situation with a very high-quality level. The operating model indicated above requires a very high level of infrastructure availability (99.5%), and very robust timetables, to provide rail companies with a very high level of quality.

The traffic control and monitoring systems will be doubled up (two PCCs are provided, one in France, and the other in Italy, with a regular changeover from one to the other), so as to provide rail operation continuity transparently)

in the event of a problem on one system. The exchange of information with rail companies is scheduled.

The simulations carried out on timetables demonstrate a robustness able to absorb the limited late running of a train (normal event within the operation of a rail service), without impairing the schedules of other trains.

The structure, with respect to equipment and installations, is designed to ensure operating regularity and management robustness.

2. **Noise and air quality**

The modal shift triggered by the new tunnel also brings benefits in terms of reduced acoustic and air pollution. In the overall time horizon, such benefits are estimated in the CBA in terms of reduction of the external cost of noise and air pollution generation of transport operations, as follows:

- Reduction of noise from passenger transport: 30 M€
- Reduction of noise from freight transport: 400 M€
- **Total reduction of the external costs of noise: 430 M€**
- Reduction of air pollution from passenger transport: 50 M€
- Reduction of air pollution from freight transport: 610 M€
- **Total reduction of the external costs of air pollution: 660 M€**

3. Time savings

Another relevant type of benefit generated by the new transport system layout is the time savings made possible for transport flows of passengers and goods. The CBA estimates the monetary value of such benefit as follows:

- Time savings for passengers: 1,390 M€
- Time savings for goods: 7,980 M€

Hence, the project allows time savings for the mobility of people and goods totaling more than 9 billion €.

Environmental and climate impact

Describe the expected positive and/or negative impacts of the project on the climate change targets (such as the Paris Agreement and the 2030 Climate and energy framework).

*Describe the expected positive and/or negative impacts of the project on the emission of air pollutants such as Particulate Matter - PM2.5, Nitrogen oxides - NOX, Sulphur Dioxides – SO2, etc. If quantified in the CBA, mention the total monetary value of such impacts (€ NPV) and the main assumptions in terms of quantities (change in tonnes or vehicle*km) and unit values (e.g. €/tonnes or €/vkm).*

Specify if the project helps to reduce greenhouse gas emissions (GHG) and limit global warming. Explain how it impacts upstream and downstream emissions (e.g. emissions from purchased electricity as well as full life cycle). For works proposals submitting a CBA, also include the total monetary value of such impacts (€ NPV) and the main assumptions in terms of quantities (avoided tonnes of GHG) and unit values (e.g. €/tCO2equivalent).

Describe how climate change has been taken or will be taken into consideration when designing the project and its components.

Describe how the project is consistent with the climate proofing of infrastructure mitigation pillar (including how the cost of greenhouse gas emissions have been integrated in the economic evaluation, how it is consistent with the energy efficiency first principle and how it is consistent with the emission targets for 2050; for details, see Commission Technical guidance on the climate proofing of infrastructure).

Describe in detail the measures that are foreseen to monitor, prevent and mitigate a negative impact on the environment, and provide an estimation of the associated costs.

The environmental impact assessment was updated in 2019 in line with the principles developed by ADEME in the Bilan Carbone® method. This assessment is updated at 2019 values. It is a simplified version but consistent with the overall approach taken in previous studies, through taking into account the following elements:

- emissions during the design and construction phases
- emissions avoided during operation

These estimations thus make it possible to identify the points that emit the most in order to identify materials, processes and implementation methods that have the least impact. On the other hand, it is possible to know the "equilibrium point" of operation with regard to greenhouse gas emissions.

Emissions during the design and construction phase require an investigation of the different components of the programme, the materials used, the site logistics and the implementation processes of each operation. The table in the "telt-in-motus" document explicitly mentions the source values, the estimates made and the basis for calculating unit values.

The carbon footprint in the operation phase includes the additional emissions related to the operation and maintenance works on the new infrastructure, i.e. all the emission related to the activity of the infrastructure manager; and differential emissions of transport flows. The latter component is based on the differential estimation of vehicle journeys between the reference and project situations. The corresponding emissions are estimated according to the chosen methodology (European Commission, Italy, France), by means of:

- an assumption of average load of private vehicles and lorries;
- a hypothesis of consumption of private vehicles and lorries;
- a hypothesis of distribution of the private vehicle fleet;
- a hypothesis of emission factor per liter of fuel consumed;
- railway internal energy efficiency improvement, thanks to the shift from a 30/1000-slope line to a 12/1000-slope line permitting to limit the number of locomotives per freight train and the traction energy use per ton transported;
- railway modal shift from road/maritime (freight) and road/air (pax) leading to energy savings thanks to the reliance on a mass-transport mode (less energy used per ton.km or pax.km, and use of electricity engines rather than thermal ones).

The average vehicle load assumptions are derived from previous studies (see the documents mentioned above), as follows:

- Private vehicles:
  - Estimates from Eurostat sources and TELT surveys 2006
  - Constant ratio of 1.345
- Heavy goods vehicles:
  - Functional delivery to the CIG, ETUDES DE TRAFIC FRET - 09/07/2013
  - growth from 10 T/ap in 2004 to 11.4 T/ap in 2010
  - growth continued until 2020
  - stable from 2020 with an alignment on 15 tonnes/heavy vehicle

The consumption assumptions for private vehicles and heavy vehicles are as follows, constant over time:

- LV: 6 L/100 km
- HV: 35 L/100 km

The assumptions for the distribution of the private vehicle fleet are the following:

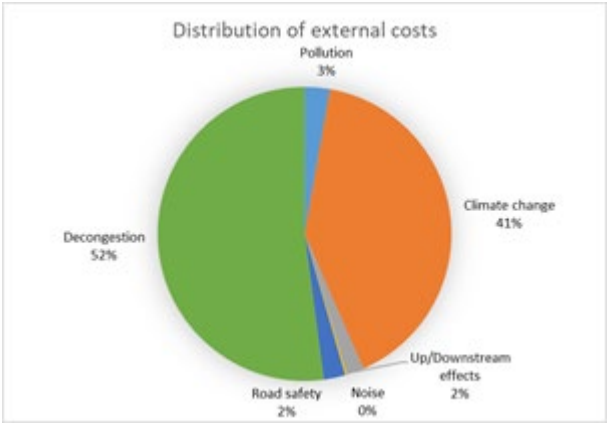
- Private cars: 17% of electric engines in [redacted] 37% in [redacted] and 58% in [redacted]
- Trucks: 5% of NGV and 5% of electric engines in [redacted] 18/40% in [redacted] 32/45 in [redacted]

The emission factors by fuel type are derived from the European Commission's and the Italian and French authorities' tutelary values (ADEME, CO2 posting of transport performance, 2012).

Concerning the monetarized impact of GHG and pollutants, for instance illustration below, indicating that the external costs avoidance due to railway internal energy efficiency upgrade and railway modal shift from other modes would represent more than 11 B€ (NPV) broken down into:

- 48% for the passengers users
- 52% for the freight users

Breakdown of the external costS



The illustration above shows that the external costs are divided as follows:

- 52% as road decongestion: speed-flow curves models has been made applied on the Frejus and Mont Blanc tunnels where time losses due to saturation are estimated for the reference and project scenario, and valued with the standard value of time;
- 41% of GHG emission avoidance (the internal railway efficiency weights more than road modal shift as this sector is supposed to reach almost carbon neutrality on the long run);
- 3% of pollution avoidance (the internal railway efficiency weights less whether the road fleet is expected to increase quickly its energy and pollution performance);
- 2% of up and downstream effects;
- 2% of road safety;
- Less than 1% of noise.

The results provided above are based on the "Technical guidance for integrating climate issues into infrastructure projects for the period 2021-[redacted]":

Carbon values for France and Europe

Carbon value	2018	2020	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Europe €2016/TeqCO2	-	80	165	250	390	525	660	800	-	-

Source: Technical guidance for integrating climate issues into infrastructure projects for the period 2021-[redacted]

Climate resilience *(for Works topics)*

Describe the climate proofing exercise and how it was taken into consideration when designing the project and its components in line with the Commission Technical guidance on the climate proofing of infrastructure. Summarise the findings of the vulnerability assessment to identify the climate hazards to which the project is more sensitive (because of the its type or location).

If significant risks are identified, explain how the vulnerabilities were embedded in the decision-making process so that they can be addressed and mitigated and what relevant measures were taken to ensure the resilience of the project to climate change.

The appraisal of the carbon footprint has been carried out, since the screening list proposed by the climate proofing guidance indicates that the project should take this kind of assessment. With reference to the climate proofing process for climate change mitigation, the process for this type of project categories will also include a detailed analysis which includes the following main steps: **(1)** definition project's boundaries; **(2)** definition of the assessment period; **(3)** emission scopes included;**(4)** quantification of project's emissions.

(1) Three geographical boundaries have been defined: French section (connection between Lyon and Saint-Jean-de-Maurienne), Cross-border section (including the main tunnels) and the Italian section (connection between Chiusa di San Michele, Susa valley, and Torino). Furthermore, three phases of the project lifecycle have been defined: the conception phase, the construction phase and the operation phase.

The conception phase includes the elaboration and design of the project and exploratory galleries. The GHG emission considered are the ones produced by the engineering studies. The construction phase includes the construction of the line and the structures, extraction and use of materials during use and machine constructions.

Finally, the operation phase includes the energy consumption of the new trains and avoided emissions, which derive from modal shift, such as emissions for the reference situation, for all transportation modes (rail, road, air) and emissions for the project situation: trains (see above), and all transportation modes after implementation. For all the traffic are considered direct and indirect emissions of the vehicles (fuel consumption, upstream emissions for oil refining, vehicles construction emissions) and emissions of electricity consumption. The perimeter concerned at this stage includes future railway infrastructure and the whole geographic perimeter involving origin-destination lines impacted by the project, differentiating freight and passenger transportation.

(2) The conception phase accounted from the public inquiry in 2021 to final exploratory works in 2017, the construction phase started in 2015 and will end in [redacted] before the base tunnel commissioning, and the operation phase will start in [redacted] and end in [redacted] (same period as the socio-economic assessment).

The presented assessment has been held in 2011 for the public enquiry studies. The carbon footprint assessment has been updated in 2020 for some construction stage specific items. Even with new dates and revised assumption, for the same perimeter, the results are at the same order of magnitude.

(3) The carbon footprint for the TELT project includes the three phases of the project, generated and avoided emissions. Details of the scope estimated is presented in the following table:

Presentation of the structure for the Carbon Footprint ®

Generated emissions by the project	Avoided emissions by the project
1. Conception stage	
- Engineering studies - Construction of exploratory galleries	
2. Construction stage	

- "Life of the site works" - Construction of the line - Construction of tunnels - Construction of tunnels - Construction of railway buildings - Construction of rolling stock	- Non-construction of heavy trucks
3. Operating stage	
- Traction energy supply for trains - Operating buildings day to day running	- Modal shift from road to rail for passengers - Modal shift from air to rail for passengers - Modal shift from road to rail for freight

Source: [redacted] 2023 after LTF[redacted] 2011

(4) The overall Carbon Footprint assessment aims at comparing the different items of the three phases so as to make a complete assessment by sum up the emissions generated by the project with the emissions avoided by the project. The following table synthesize the quantification of project's emissions up to [redacted]

Summary of carbon footprint emission items by phase (k.teqCO20)

Carbon footprint up to [redacted]	kt.eq.CO2
1. Conception stage	**92**
Studies and exploratory galleries	92
2. Construction stage	**10 879**
Works for the future line	8 920
Rolling stock	3 787
Non-manufacturing of HGV	-1 827
3. Operating phase	**-14 201**
Maintenance and renewal **of infrastructure**	169
Traction energy (passengers)	142
Traction energy (freight)	-412
Modal shift (pax: road to rail)	-1 166
Modal shift (pax: air to rail)	-1 740
Modal shift (freight: road to rail)	-10 848
Modal shift (freight: short sea shipping to rail)	-346
Total emission generated	13 110
Total emission avoided	-16 339
Total net emission	**-3 230**

Source: [redacted] after LTF[redacted] 2011 and proper estimation in 2021 and 2023

The conception stage still represents a small source of GHG emission, and the attention should be given more on the construction and operating phase which weights most of the emission of the project. As for the construction stage, the first version of the carbon footprint appraisal estimated the total emission for the future line up to +9,64 million teqCO2 of which +8,95 million teqCO2 have been updated regarding the progress of technical studies in particular on the excavation. It led to adjust this subitem emission up to +8,22 million teqCO2, and the full works for the future line up to +8,92 million teqCO2.

The analysis of the operating phase leads to estimate a growth of traction energy emission for the passenger train where new circulation are commissioned but a net reduction for the trains where the number of locomotives and the energy efficiency compensate the new circulations. The modal shift constitutes the main savings in the GHG emission, principally for the freight on the road to rail modal shift in the short and middle term. The monetization of the total GHG emission of the project for the conception, construction and operating phases, discounted according to the assumptions of the cost benefit appraisal weights 1,4 net billions of euros before [redacted] of which:

- 3,2 billion euros of generated emission, mainly on the short term during the construction phase, marked up due with the discount rate.
- -4,6 billion euros of avoided emission, related mostly to the modal shift during the operating phase, marked down with the discount rate on the long run.

After the presentation of the FitFor55 package, UIC, the international Railway Association, recalls the following arguments in favour of the railway sector in its 10/2021 press release: "Rail has already been playing its part and is the only transport mode to have reduced emissions. In 2010, as part of the UIC/CER "Environmental Strategy for [redacted] and Beyond", leading members of UIC committed to reducing emissions by 30% by [redacted] and annual data submitted shows that this target has already been reached (28% location-based; 38% market- based). This has been achieved through a combination of energy efficiency measures and a continuous increase in electrified routes. Rail is continuing to innovate to become even more efficient and phase out diesel from the fleet. It is on track for the 55% target for [redacted] and net zero before [redacted] and is mobilising efforts to win a greater share of freight and passenger transport."

Applied to our project, if we focus on the passengers' modal shift to rail, the GHG emission reduction represent a cut of:

- 40 geqCO2/pax.km (road) down to 2 geqCO2/pax.km (rail) for the period [redacted]
- 125 geqCO2/pax.km (air) down to 2 geqCO2/pax.km (rail) for the period [redacted]

As for the freight shippers' modal shift to rail, the GHG emission reduction is up to:

- 35 geqCO2/ton.km (road) down to 2 geqCO2/ton.km (rail) for the period [redacted]
- 30 geqCO2/ton.km (short sea shipping) down to 2 geqCO2/ton.km (rail) for the period [redacted]

In the 2000' years, the Frejus road tunnel registered around 25 M.tons which transited through the Alps for an average of 800-km-long trips. The corresponding yearly GHG emission with a unit factor of 80 geqCO2/tkm amounted around 1 600 000 teqCO2. The project compensates its construction emissions around [redacted] with modal shift benefits.

After its construction emission compensation, the Lyon Turin Railway project would permit to avoid around 300 000 teqCO2 each year, i.e. -18% of the reference emissions. In the same time, the road sector would follow a trend of decarbonation which would be complementary to the project effect, in order to reach jointly the objectives of the FitFor55 package defined above.

The project will thus constitute one of the major levers to achieve the climate goals defined commonly by the Member States at constant level of traffic after [redacted]

The following risks has been identified and appraised for the whole project:

Theme	Impact	Risk probability	Risk incidence	Risk level
Heat waves	Air quality and discomfort in the tunnels	Moderate	Median	Median
	Station thermal discomfort	High	Moderate	Median
	Rail deformation	Moderate	Major	High
	Other materials damages	Moderate	Moderate	Median
Drought	Project water consumption towards water availability	Négligeable	Négligeable	Low
	Weakening of watercourse or increase in temperate	Moderate	Minor	Low
	Water pollution	Moderate	Moderate	Median
	Vulnerability of landscape	Moderate	Moderate	Median
Wildfires, forest fires	Forecast and landscape fire	Moderate	Moderate	Median/6
	Materials and equipment fire	Moderate	Moderate	Median
	Fire frequency increase	Moderate	Moderate	Median
Floods and extreme rainfalls	Ground water elevation	High	Major	High
	Watercourse path change	Moderate	Moderate	Median
	Watershed retention capacity modification	Moderate	Moderate	Median
Landslides	Rockslides	High	Major	High
	Mudslides	Moderate	Moderate	Median
Cold waves	Snow loads on structures	Moderate	Minor	Low
	Materials damages due to low temperatures	Moderate	Minor	Low
	Operation interruption (access, connectivity)	Moderate	Moderate	Median
	Energy access cutting off	Négligeable	Négligeable	Low
Freeze, Thaw	Freeze / thaws damages	Not appraised	Not appraised	Not appraised

As stated in the guidelines provided by the European Commission: "Project Cycle Management (PCM) is the effective and efficient planning, organizing, coordinating and auditing of a project throughout its phases, from planning to implementation and operation to decommissioning."

The climate change management plan takes into account the impact and probability of the major risk identified to define the measures taken in the project design in terms of risks adaptations and mitigations. **Further details can be found in the Climate Proofing Annex.**

Decision-making tool, input for policy making or development of best practices *(for Studies topics)*

Show how the project will have an impact as decision-making tool or input for policy making or development of best practices.

Who will use the output of the project and for how long? Describe the extent to which the output will be relied on for decision-making, possibly in relation to other studies and future projects, and at what level, (e.g. a future CEF Transport action, national project, global project, etc.). Describe the relevance and economic value of those future projects in terms of costs and benefits. Explain the degree to which elements of the project could be used to develop best practices.

Not Applicable

Interoperability and accessibility

Describe if and how the project contributes to increased interoperability of transport systems and/or modes in the TEN-T network.

Describe if and how the proposal enhances the accessibility for passengers and/or goods to the TEN-T network (e.g. cross-border dimension, effect/contribution to territorial accessibility, including for outermost regions and islands).

The new Turin-Lyon railway line, being one of the 9 axes of the European TEN-T transport network, with an extension for 3.000km, connecting 7 European corridors from East to West, constitutes at the same time part of a large interoperable network. The interoperability as presented by the European Directives represents the ability of a rail system to allow the safe and uninterrupted movement of trains which accomplish the required levels of performance. In accordance with the Directive 2008/57/EC 'Interoperability of the Rail System within the Community' of the European Parliament and of the Council it is appropriate to improve the interlinkage and interoperability of the national rail networks as well access to those networks by implementing necessary measures in the field of technical standardisation in order to enable citizens of the Union, economic operators and competent authorities to benefit to the full advantages deriving from the establishment of a single European railway area. In particular, the Turin-Lyon line is part of this Trans-European interoperable rail network and it will be implemented according to the Technical Specification of Interoperability for structural subsystems closely related to the role of the Infrastructure Manager, as derived from the European Directives.
The Turin-Lyon project, being part of the Global Project provides a series of advancements and improvements in railway conditions at International and European level. With this regard, it is worth to mentioning the implementation of technical, infrastructural and administrative initiatives devoted to strengthening rail interoperability and accessibility at other European borders, such as the entry into service of the Ghotard and Ceneri base tunnels. The opening of this new alpine line triggered the growth of new international rail transport services, the improvement of the quality of the transport and, together with the increase in road prices, it generated a significant reduction in the share of the road in favour of other modes of transport (traffic data are described in detail in the Global Project chapter and in the demand analysis).

The construction of the New Turin-Lyon rail link, with the commitment to pursue the objective of railway interoperability between different States of the European Union, will provide an excellent compatibility between the characteristics of the national networks. This cross-border project structured as a long railway plain line requires, since the early design stages, to respect a series of approval steps which aim to ensure safety of the railway and its compliance with the interoperability requirements described in the International Standards. In particular, for all the AV/AC (high speed/high capacity) sections that are part of the interoperable corridors, the Parliament of the European Community has issued, over the years, the Technical Specifications for Interoperability that are input for the design and realization of the investments foreseen by this project. It is clear that the compliance with the TSIs is a necessary condition for the safe integration of the international section into the trans-European rail system, to which it will be connected through both the French and Italian sections.

Innovation and digitalisation

Describe if and how innovative technologies are being used to reach the project's objectives.

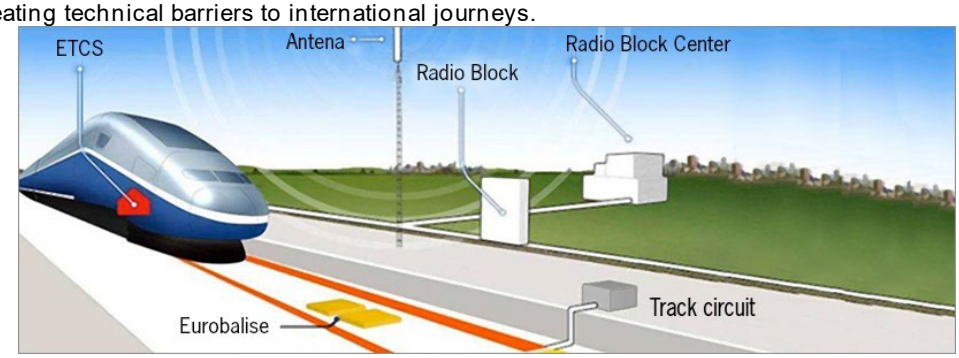
Describe if and how the digitalisation forms part of the project (or its use).

In case the project is making use of results from EU-supported research projects, please give the reference of the EU research project.

This project will be realized by implementing state-of-the art technologies.
The Italian railways are among the first in Europe to adopt the level 2 European Rail Traffic Management System/European Train Control System (ERTMS/ETCS) on the new lines of the High Speed/High-Capacity network. The system - based on the European standard - allows trains from different countries to circulate without interruption on all European lines that are equipped with it and is capable of guaranteeing the safe movement of trains with the adoption of functions and technologies at the avant-garde.

The line will be equipped with the SCCM system (Multi-station Command and Control System) ACCM equipment (multi-station computerized central apparatus) one of the systems of the highest technological level in the railway signalling sector, it is a real "control room" which, thanks to the latest generation technologies and infrastructural upgrading make the infrastructure more reliable by increasing the standards of regularity and punctuality of railway traffic.

Currently there are more than 20 train control systems across the European Union. Each train used by a national rail company has to be equipped with at least one system but sometimes more, just to be able to run safely within that one country. Each system is stand-alone and non-interoperable, and therefore requires extensive integration, engineering effort, raising total delivery costs for cross-border traffic. This restricts competition and hampers the competitiveness of the European rail sector vis-à-vis road transport by creating technical barriers to international journeys.



ERTMS components

As a unique European train control system, ERTMS is designed to gradually replace the existing incompatible systems throughout Europe. This will bring considerable benefits to the railway sector as it will boost international freight and passenger transport. In addition, ERTMS is arguably the most performant train control system in the world and brings significant advantages in terms of maintenance costs savings, safety, reliability, punctuality and traffic capacity. This explains why ERTMS is increasingly successful outside Europe, and is becoming the train control system of choice for countries such as China, India, Taiwan, South Korea and Saudi Arabia. The ERTMS has two basic components:

1) ETCS, the European Train Control System, is an automatic train protection system (ATP) to replace the existing national ATP-systems;
2) GSM-R, a radio system for providing voice and data communication between the track and the train, based on standard GSM using frequencies specifically reserved for rail application with certain specific and advanced functions. For more information on GSM-R, please click here.

ERTMS aims at replacing the different national train control and command systems in Europe. The deployment of ERTMS will enable the creation of a seamless European railway system and increase European railway's competitiveness.

Building Information Modeling (BIM) is a sophisticated and comprehensive approach to construction and project management that seamlessly integrates data and information throughout every stage of a project's life cycle, from initial feasibility assessments to actual construction and ongoing operation. It also promotes effective communication and collaboration among the diverse professionals involved in a project.

In the context of this project, this technology plays a pivotal role. TELT utilizes BIM to create a digital representation of the entire project, encompassing architectural designs, structural plans, building systems, material specifications, component details, construction phase schedules, cost estimations, and even maintenance requirements. This digital model serves as a central hub for all project-related information, enabling real-time updates and collaboration among architects, engineers, contractors, and other stakeholders within the TELT project.

By maintaining and updating this comprehensive database of project information, TELT harnesses the power of BIM to streamline project coordination, preventing discrepancies or conflicts in design and planning. This approach results in faster construction timelines, cost savings, enhanced reliability, and reduced susceptibility to errors or risks, thereby ensuring the TELT project's success. Moreover, TELT empowers its project managers and decision-makers with accurate and up-to-date information, improving the overall effectiveness of their choices in the management and execution of the project. In this way, TELT benefits from the innovative and efficient capabilities that Building Information Modeling offers in the construction and operation of the Lyon-Turin tunnel project.

Moreover, partnerships with the international research community have become an integral part of the nature of the company. Research themes are multidisciplinary, encompassing not only hard sciences but also organizational, sociological, and, more recently, artificial intelligence topics. TELT also serves as a hub for other partnerships with leading actors in Europe, including, for example, [redacted]

[redacted] and [redacted]. Each joint development agreement allows TELT to enhance its expertise in core areas such as sustainability, safety, and technological innovation, exchanging experiences with some of the most qualified entities in Europe. This aligns with the multistakeholder logic of the Global Compact and with SDG9 "Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation."

Since 2015, TELT has established collaborations with leading research institutions in Europe and worldwide. The primary partnerships have fallen into two categories:

- Commissioned Studies: Involving a specific scope, TELT has enlisted researchers to address complex technical problems.
- Research Projects: The infrastructure and the public promoter's organization itself have become subjects of experimentation and in-depth study across various knowledge domains.

The 2022 collaborations include 21 activated or ongoing projects and 15 partnerships with research institutions. Between 2021 and 2022, TELT invested approximately €878k in research, including scholarships and equipment. These investments are part of the normal fund management for the project and reflect the public promoter's strategy to enhance critical themes for the base tunnel realization (environment, engineering, construction, etc.).

TELT's partners are located in France and Italy, the two nations primarily involved in the new line's construction. However, some scientific partners have expressed interest from other nations, and an extensive research project with the University of Montreal is currently underway.

In 2022, TELT joined Claire, a network that forms a pan-European Confederation of laboratories for artificial intelligence research in Europe. The groups and organizations involved commit to working collaboratively to achieve European excellence in AI, with a specific focus on human-centric approaches. As a Promoter of a symbolic innovation project, TELT is attuned to the theme of artificial intelligence serving major infrastructures and is dedicated to the goal of realizing the "Connected Tunnel."

The agreement, allowing the cross-border transport of excavation materials to the "Cantiere unico" (unique construction site) of the Turin-Lyon railway, and requiring over three years of work, was approved during the session of the Intergovernmental Commission held in Rome in December 2022. The agreement is now operational, marking the first instance in Europe where the binational reuse of excavation materials within transborder construction sites of the same project is permitted. This establishes the collective construction sites as a single site, the perimeter of which is defined in the 2012 International Treaty.

The optimization of excavation material reuse is closely tied to innovation. To address this, TELT has formed the following collaborations:

- Advantex: A research project in collaboration with the [redacted] (Departments of [redacted] and [redacted] to provide early characterization of excavation materials. In 2021, the research team worked on a sample from the La Maddalena geognostic tunnel, aiming to present innovative solutions in the realm of circular economy.
- [redacted] A Franco-German R&D partnership funded by the EU Commission.
- [redacted] and [redacted] Partnerships for knowledge exchange and experience sharing.
- Carisma: A project for which TELT collaborated with [redacted] the international foundation working to promote, lead, and enhance innovation processes through research projects. TELT participated in the European call "Circularity, Resilience, and Intelligence in the Construction, Maintenance, and Use of Transport Infrastructure."

Competition

Describe the expected positive and/or negative impacts of the project on regional and national competition.

1. Competition at European level

The planned works for the New Turin Lyon project are aimed at creating greater competition and increasing the capacity and potential of the line, thus making it possible to increase passenger services and freight traffic, which will allow a shift of traffic from road to rail and have several competitive impacts that will help to create a more efficient and customer-responsive industry within the European union.

The rebalancing of trade between transport modes within the European commercial area constitutes a major advancement while it will have positive effects in the European Union by facilitating trade whose the origin or destination is the Iberian Penisula on the one hand and the countries of south-eastern Europe on the other hand. In addition, it is also considerable the improvement of land exchanges between Western Europe to the whole Mediterranean region and corridors as part of the global project.

With this regard we underline that, according to the Work Plan of the Mediterranean Corridor, the overall modal split for international freight flows between the Countries of the Corridor is transported by the 66% via road, 9% via rail and 25% via maritime transport. Corridor countries have strong cross-border exchange flows at regional level with each other and with the rest of Europe; in particular Catalonia and Lombardy, but also Piedmont and Rhone Alpes appear as the predominant generators of trade flows in

this part of the Corridor. An improvement of the infrastructure performances along this network will result in a facilitation of the trade, with great impacts on the economic sector, but also on the social wellbeing.

2. **Competition at regional and local level**

In terms of regional competition, the Mediterranean Corridor, to which the Turin-Lyon section belongs, concerns 18% of the European population representing the 17% of the EU GDP (Source: Eurostat). To support the economic development of these territories, an efficient infrastructure alternative to road transport is essential.

Alpine territory's competition is expected to be affected positively by the upgrade of the infrastructure thanks to thew increased accessibility, the construction of new stations and the increased services.

This project has several aims by enabling the extension of the high-speed network: this new line will make it possible to increase the frequency of high speed trains and to implement high-speed regional services. In addition, faster travelling times will have as a result to boost both travel and trade through the Alps, rebalancing the cargo flows between different modes of transport and increasing the quality of the services for local tourism

Today around 46.3 million tons of goods cross the Western Alps, between Italy and France, and currently more than 92% are transported by road (Source: Bundesamt für Verkehr (BAV), Ufficio Federale dei Trasporti. Includes Ventimiglia, Montgenèvre, Mont Cenis, Fréjus, Mont Blanc). It is estimated that at least half of these goods will be able to use the New Turin-Lyon line (Source: [redacted] This result will save 40% of energy, making rail transport more competitive, with considerable benefit for the environment.

As for freight, this new line represents a concrete and long-term alternative to road transport. This new route will ensure a highly effective link for businesses needing to transport merchandise, with a great variety of rail transport services (traditional, combined, [redacted]).

The main effects that the new infrastructure will generate on the competitiveness of the territories is described below:

- Greater interchange: with the creation of a tangible alternative to road transport, it will be possible to intercept the increase in the circulation of goods, as seen through the other Alpine passes;
- Greater capacity: the extended compliance with the European standard will allow the passage of trains with the improvement of rail capacity
- Improved environment: a train eliminates 60 heavy goods vehicles travelling on the road networks;

Better source allocation: rail transport costs decrease over time compared to the road costs increase

Regional and local development and land use

Describe the expected positive and/or negative impacts of the project on regional and/or local development, and land use. Assess the impacts on the neighbouring regions.

Indicate if the project is linked to urban development plans, or if it will contribute to increasing the land value.

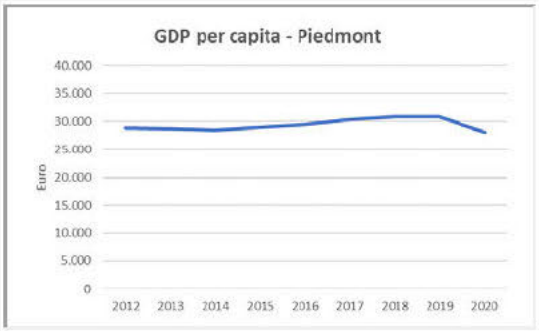
This project, as part of the Global Project will generate relevant impacts on the Regional and local development.

1. **Regional and local development**

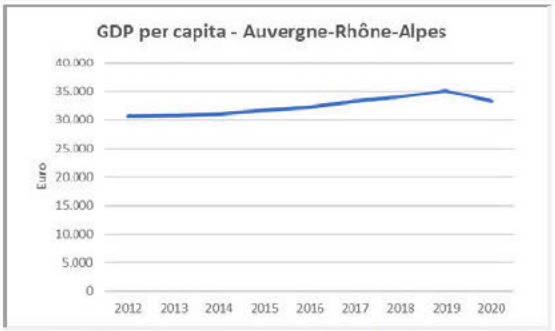
The New Turin-Lyon Line will produce a great variety of impacts on the territory and on regional development. The NLTL will have major regional effects, given the socio-economic characteristics of the French and Italian regions (Rhône-Alpes and Piedmont) on which these effects will be the most significant. These two regions are characterized by their demographics of respectively 5.6 million inhabitants in Rhône-Alpes and 4.3 million in Piedmont, populations almost equivalent to those of Denmark and Finland. This strong demographic weight is a real advantage because it offers a large employment pool but also a vast area of differentiated production and a large market for consumption. Given these elements, **the NLTL can only reinforce the cohesion of these territories** of the European Union, providing new and improved possibilities for the movement of goods and passengers.

The creation of efficient infrastructure is directly connected with the economic development of the territories in which the works are being conducted since this large-scale project will provide an important boost of economic growth at both regional and local levels and thus improve the living standards of inhabitants because of the creation of direct and indirect jobs for subcontractors, businesses, services and tourism.

As presented in the graphs below, the rate of the GDP in the regions of Piedmont and Rhone Alps, where the works of the rail section are conducted, illustrate that the dynamics of the rate are not increasing representing a slow growth in terms of economic development and equivalent economic prosperity. The construction of the new line (including the International Stations) and the current advancements in the Sant'Ambrogio, Borgone and Bruzolo station will increase the attractiveness of these areas, creating more opportunities in terms of job positions and quality of life.



Source: Instituto Nazionale di Statistica, ISTAT, Italy



Source: Institut national de la statistique et des études économiques, France

The contribution of the project to regional and local development is expected to boost mobility, increase the level of commuting and stimulate new activities making more attractive the region ad improving the benefits for its inhabitants.

Here below several measures implemented to strengthen the connection between the construction site and the local community:

- **Mon emploi Lyon-Turin:** A unique service for finding employment on the construction site, obtaining training, or hiring future employees for the Turin-Lyon project. Led by Pôle Emploi, this platform promotes recruitment in the region by connecting construction companies with job seekers. Mon emploi Lyon-Turin supports companies in recruiting, guiding, and training candidates, as well as anticipating the primary needs of the construction site. This initiative is supported by an ongoing initial training program tailored to the realities of the construction site.
- **ALTE (Appui Lyon Turin Entreprises):** A platform supporting the local and regional economic fabric, facilitating access to the construction site for local and regional companies or developing services for employees. To provide local and regional companies with access to specific job contracts, especially subcontracting opportunities, the platform simplifies communication between companies, facilitates access to information about construction site activities, and helps improve their skills in terms of human resources, innovation, marketing, etc.

Renovated housing to better accommodate Turin-Lyon employees:

- In November 2022, renovated housing was inaugurated in a building in Saint-Jean-de-Maurienne (23 apartments for 54 Turin-Lyon employees and 6 apartments for people with reduced mobility).
- **La Maison de l'Habitat**: A local reference point, a resource for renovating and renting property. The agreement between TELT and the Communauté de Communes Cœur de Maurienne Arvan for the operation of La Maison de l'Habitat in Saint-Jean-de-Maurienne under the FAST framework was renewed in 2022.

2. <u>Land Use</u>

The New Lyon Turin rail line is based upon initiatives and measures that have been taken to ensure conscious land use and sustainable development of the Alpine region with an integrated approach to safeguarding the Alps in their complex economic-social-cultural and ensuring nature protection and landscape protection. One of the main objectives of the realization of this project is relied on the respect of Alpine heritage and promotion of a sustainable use of both natural and cultural resources.

Outermost regions (if applicable)

Describe which outermost regions are impacted by the project.

Indicate how the regions and project promoters cooperate. If relevant, specify which countries are impacted and explain how the cooperation with them is ensured.

Not Applicable

Other considerations

Please describe any other relevant considerations.
Not Applicable

#§IMP-ACT-IA§# #@CAT-EFF-CE@#

5. CATALYTIC EFFECT

5.1 Financial gap

Financial gap

Explain how the EU grant will facilitate or accelerate the project, in comparison to a situation without the EU funding.

Describe the financial gap, which the EU funding is supposed to cover. Specify and justify the amount.

Describe the financial obstacles and how public funding would help to overcome them.

Indicate whether you expect any EU support under the Recovery and Resilience Facility (RRF) (with an approximate amount).

1. **Funding Gap considerations**

The Financial Analysis of the CBA (see the Cash Flow template), carried out for the global project, shows that the present value of project investment costs equals some 17.9 billion € ($€_{2023}$ values, used for all amounts in the CBA). In the face of such costs, the operation phase allows O&M overall savings (including rail and road operations) for a present value of some 1.3 billion €; and total revenues are estimated in some 1.49 billion € (present value). Furthermore, the residual value at then of the 50-year period equals (in present value) some 2.2 billion €.

These figures imply a FNVP (Financial Net Present Value) which is negative by 12.9 billion €, which corresponds to the project's Funding Gap, and a non-calculable IRR. In relation to the above-mentioned project costs, such funding gap represents 72.1% (Funding Gap Rate).

It is worth noting that the calculation of the Return on investments after the CEF grant has little effect in this framework, because the scale of the global project (17.9 bln € in present values) is much wider than the supposed CEF grant for the present Action (2.6 bln € in current values, 2.3 bln € in present values). Instead, when we consider all grants, the Financial Analysis also shows that the public subsidies greatly improve the sustainability of the project bring the FNPV to a positive value of 4.9 bln €.

In fact, it has to be considered that *no private funding* is envisaged in the funding plan of the global project; this is by all means a public initiative, funded both by European Union and the concerned Member States, carried out in light of its central relevance in both the national and European transport policies. This has two consequences in terms of financial indicators:

- The "Return on investments with all grants" is very high (4.9 bln €), because public contributions (both CEF and national ones) count as incomes in the calculation of this indicator;
- The "Return on investments on private sector capital" has no significance, as there is no private capital involved.

2. **The need for public funding**

The CEF-Transport contribution is essential to accelerate the implementation of the project (due to the time constraints set out in the concession documents) and to strengthen its financial structure, ensuring greater financial stability at Member State level. The EU and Public contribution is essential to overcome the financial obstacles determined by a very long time horizon of the project and a major investment cost for this kind of initiatives with high public relevance. Consequently, in the absence of Community support, the operation could take longer to complete and/or present greater risks, particularly in the event of financial difficulties on the part of the Member State or of unforeseen events.

Both the COVID-19 pandemic and the new situation created by the war against Ukraine had significant negative impacts on the transport sector. At the same time, the pandemic crisis demonstrated the crucial role of transports in guaranteeing free movement of people, goods, and services across Europe

Improving the quality and efficiency of transport infrastructures is essential to boost European competition and ensure access to the internal market for all regions.

Since investments are necessary to realize new railway infrastructures, the public financial support – such as the CEF Transport funding - is vital to recover from the severe COVID-19 crisis and to accelerate and guarantee public/private investments.

The project management activities include the coordination activities with Associated Partners, namely the French Ministry and the Italian Ministry for Infrastructure and Transport (MIT), necessary for the implementation of the project in line with the Grant agreement. These activities will ensure the coherence of the implementation of the project as per the Grant Agreement with the TELT annual works plan.

5.2 Public and private investment and financial leverage

Public and private investment and financial leverage

Provide information on the capacity of the grant to trigger a bigger investment or to allow other investments. Will the EU grant help mobilising additional public and private funding? Will different sources of funding or higher amounts become available? Has the financial leverage been optimised in terms of amounts and duration?

The CEF grant will speed up the completion of the Lyon-Turin cross border section of the Mediterrranean Corridor, thus encouraging the allocation of further public resources in favour of the completion of the missing link.

CEF grant is also intended to act as a catalyst to attract further funding from other actors: as we are experiencing a continuous pressure on EU public budgets the support through EU funding programmes is necessary to leverage the impact of EU budgetary resources.

TELT's strategy aims at implementing actions to maximize the positive effects of the work on the economic induced of construction and services. The company's responsible purchasing strategy, aimed at promoting competition, the rewarding nature of innovation and, through the expansion of the information base and the transparency of tender procedures, also the participation of SMEs in groupings, has certainly led to create a Turin-Lyon value chain that will grow with the progress of the work and the activation of all subcontracts and supplies of energy and raw materials, branched out all over the world.

Once the project will be realized, the economy will benefit from investment by major players of supply-chain and transport, producing also benefits for consumers, with lower prices and higher levels of service due to the reduction of the Generalized Cost of Transport between Italy and France and along the Ten-T network. Moreover, the project will support and allow the increase of modal shifting, which will benefit the economic growth of intermodal terminals, and the optimization of routes enhancing the European transport of goods and people though the Ten-T Corridors. This results in an increase of attractiveness of new players to use and invest in the rail transport and complementary infrastructures allowing the private investors of the territory and Europe to benefit from the economic growth triggered by this project. Specifically, this project is going to produce direct, indirect, and induced impacts to the economic:

- Direct Impact, which includes economic and employment growth generated directly on the local economy linked to business activities, such us all the subcontractors involved in the project.
- Indirect impact, which includes economic and employment contribution indirectly linked to business activities, such the value generated by the partners and suppliers involved along the value chain.
- Inducted impact, economic and employment contribution linked to business activities constituted by the value generated through the demand for goods and services in the territory supported by long-term employees.

Considering the complexity and the relevance of the Global project for the economy of Europe, the European and National funds, will be crucial for its completion and will allow to speed up all the works foreseen.

Finally, quality-wise, the European regulation and rigorous procedures ensures a high accountability for the financial and the technical part, resulting in a well-designed project and high-quality Project Management. Moreover, the Grant Agreement encourage to carry out a systematic monitoring which grants the visibility of results of the activities to Europe and a strong ownership of the project to the Beneficiaries. Considering the complexity and the magnitude of this project, the European Framework is crucial for its optimal execution and completion.

5.3 Stakeholder commitment

Stakeholder commitment

Explain how the EU funding would reinforce the commitment of different partners and stakeholders (public and private).

What would be the effects, in terms of commitment of stakeholders, if the project would not receive the grant?

The European Union's contribution plays a crucial role in ensuring the full commitment and involvement of France and Italy in transnational infrastructure projects. The EU acts as a catalyst for the consolidation of common interests, promoting cooperation among its member states. In the implementation of this transnational infrastructure project, the European Union provides a regulatory and financial framework that facilitates the active participation of member countries. Within the context of Franco-Italian relations, this contribution translates into enhanced synergies and partnerships, allowing both countries to collaborate more effectively and cohesively. The EU thus serves as a key pillar in ensuring the success of shared projects, strengthening the involvement of nations like France and Italy in achieving their common ambitions.

The new rail line constitutes a major element of the local, national and European transportation system, ensuring significant improvements in the transit times of passenger and cargo rail services, improving accessibility and limiting the congestion of the valleys by road traffic. Furthermore, the Turin-Lyon is an essential part of the Mediterranean Corridor, being one of the 9 railway axes that belongs to the European TEN-T network. Its realization will guarantee a connection, south of the Alps, between Western and Central Eastern Europe aiming to promote the economic exchanges and strengthen the competitiveness of Mediterranean European Countries while being a freight and passenger railway network, which also intersects with the most important sea and river ports, major cities and airports.
The following entities support the project and underline the strategic importance of the realization of this project for the national economic development (Support Letters attached):

- [redacted]
- [redacted]
- [redacted]

#§CAT-EFF-CE§#

#@WRK-PLA-WP@#

6. WORK PLAN, WORK PACKAGES, ACTIVITIES, RESOURCES AND TIMING

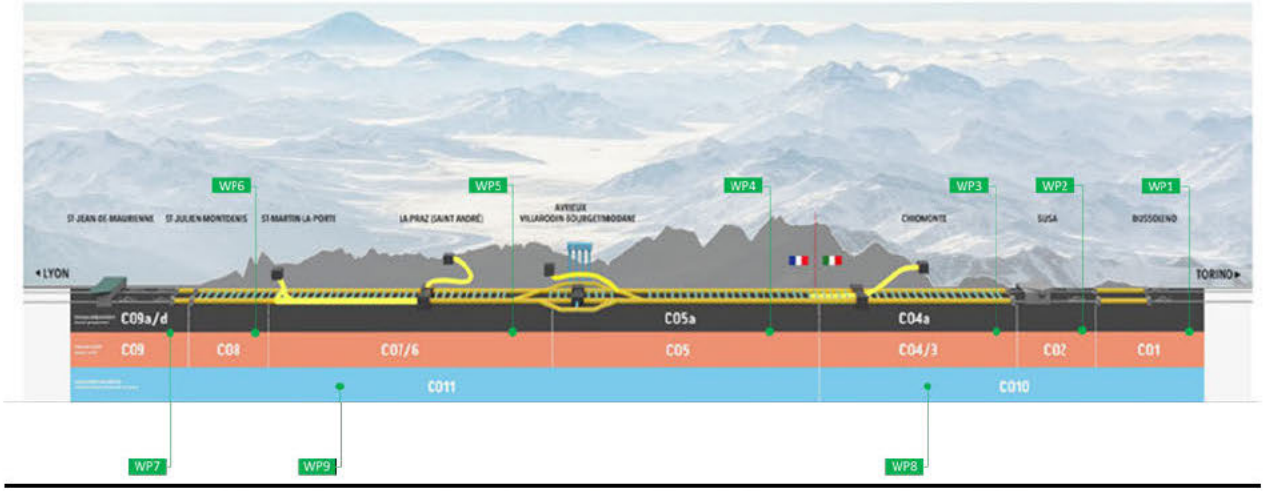
6.1 Work plan

Work plan

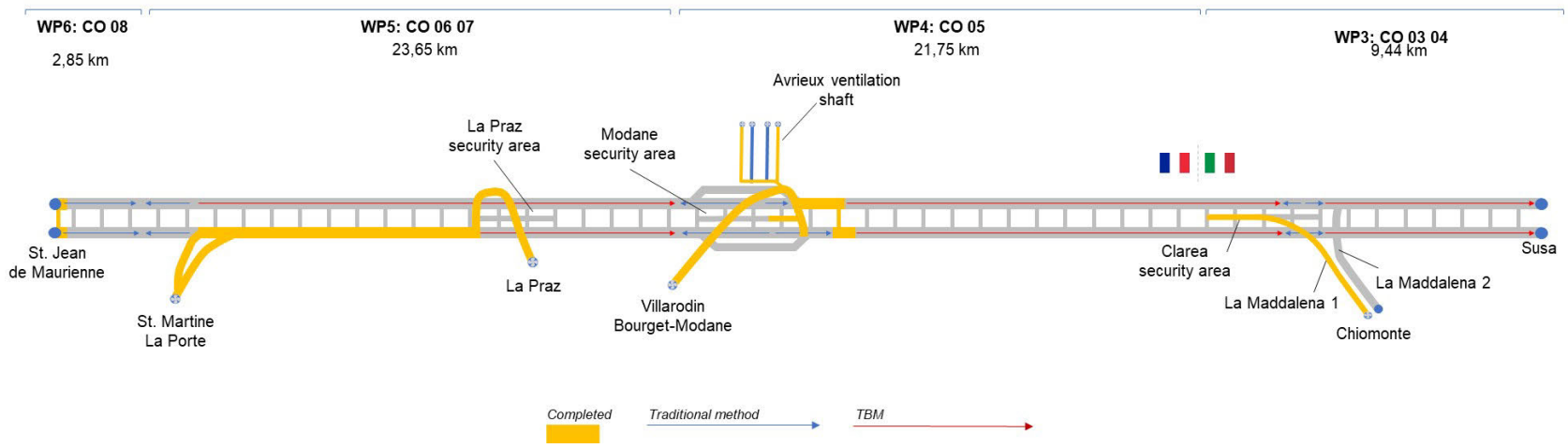
Provide a brief description of the overall structure of the work plan (list of work packages or graphical presentation (Pert chart or similar)).

The NLTL line is a part of the is an essential component of the "Mediterranean Corridor", one of the nine TEN-T networks Corridors and the core element of the new line is the 57.5 km Mont Cenis base tunnel. For the realization of the Mont Cenis base tunnel, the works being conducted, both in Italian and French side, have been separated in twelve different "Operating Construction Sites" (Cantieri Operativi /Chantiers Opérationnels). The present proposal aims at realising the NLTL through a number of technical Work Packages that each of them correspond to the Operating Construction Sites and the specific objectives of the project and its realization.

The Work Plan of the Project encompasses 12 technical Work Packages corresponding to the various Operating Construction Sites (CO): Work Package 1: Interconnection of Bussoleno CO 01; Work Package 2: Civil works in Susa plain CO 2; Work Package 3: Base tunnel Maddalena-Susa CO 3 – 4; Work Package 4: Base tunnel Modane-La Maddalena CO 5; Work Package 5: Base tunnel S. Martin La Porte-Modane CO 06 -07; Work Package 6: Base tunnel S. Julien Mont Denis - S. Martin La Porte CO 08; Work Package 7: Civil works in the S. J. de Maurienne plain CO 09; Work Package 8: Management of the excavated materials in Italy CO 10; Work Package 9: Management of the excavated materials in France CO 11; Work Package 10: General CO 00 & Prescriptions CO 00P; Work Package 11: Horizontal activities; Work Package 12: Project Management and Administrative activities.



The previous chart shows the location of the activities envisaged by each WP.



Base tunnel main construction sites

The excavation of tunnels for the cross-border section is being tackled using various excavation methods: about 40% with the traditional ones and 60% with the mechanised one. Moreover, TELT has decided to promote the implementation of the innovative BIM approach, which represents a revolution in the field of project management. More precisely:

1. **Mechanised digging using a TBM:** TBMs – Tunnel Boring Machines are machines, custom-built to dig underground quickly and safely. The TBM cutter is configured as a "travelling industry": it allows to mechanise and automate all the excavations, the management of the excavated materials and the installation of the concrete segmments, reducing to a minimum both the work time and the number of operators that have to be present. For the realisation of this project the use of 7 TBMs in total is planned and they have been designed on the basis of the different geological characteristics of the mountain that each of them will face during the excavation. One section of the tunnel was already excavated with Federica TBM, between S. Martin La Porte and La Praz. Part of the budget of this project is also linked to ordering, purchasing, testing, transporting, assemlbing and make fuctioning this machines. Currently, 5 out of 7 TBMs have been already ordered by TELT and 3 of them will be tested in the production factory by the end 2023 then they will be transported to the concerning Operating Construction Site.
2. **Traditional excavation using explosives:** This is used in the more complex mountain sections. This technique involves making holes in the rock wall which are then filled with beams in order to mantain them stable. After explosives are used to proceed with the excavation without risks of collapse of the tunnel. After the debris are removed, the front is consolidated with sprayed concrete. In some cases, the shell can be reinforced with steel bars.
3. **Traditional excavation using pneumatic drills**: Where the rock is less resistant and explosives cannot be used, progress is made using pneumatic drills, with the excavation again being consolidated with beams and concrete and in particular conditions characterised by soft characteristics of the mountain (Work Package 6) the "umbrella arch method (UAM)" can be used.
4. **Building information modeling (BIM):** TELT has opted to use the innovative BIM – Building Information Modelling – computer technology, which represents a revolution in the field of project management. BIM is a data analysis and communication tool linking the different professionals involved in a project and used to facilitate cooperation, simulation, and continuous improvement throughout the entire life cycle of the infrastructure. The integration and updating of information (architectural, structural and plant

design, characteristics and properties of materials, components and systems, planning of construction phases, timing and execution costs, maintenance works), allows to monitor the overall process, helping to speed up the construction process, making it cheaper, more reliable and less prone to errors or risks.

We attach to this Application the so called "Master Plan 30/06/2023 - Le Chemin de Fer du Programme Objectif" which provides a clear overview of the works to be done. Please consider that the technical progress is based on the financial expenditures expected for this project. In fact, the financial statement reflects the physical implementation (invoices are issued considering the cumulative progress of the construction works). For these reasons, at this stage of the project preparation, we consider the budgetary instalments more adequate to monitor the progress of the works.

6.2 Work packages, activities, resources and timing

WORK PACKAGES

Work packages

This section concerns a detailed description of the project activities.

*Group your activities into work packages. **A work package means a major sub-division of the project**. For each work package, enter an objective (expected outcome) and list the activities, milestones and deliverables that belong to it. The grouping should be logical and guided by identifiable outputs.*

Projects should normally have a minimum of 2 work packages. WP1 should cover the management and coordination activities (meetings, coordination, project monitoring and evaluation, financial management, progress reports, etc) and all the activities which are cross-cutting and therefore difficult to assign to another specific work package (do not try splitting these activities across different work packages). WP2 and further WPs should be used for the other project activities. You can create as many work packages as needed by copying WP1.

For very simple projects, it is possible to use a single work package for the entire project (WP1 with the project acronym as WP name).

For works proposals, please make sure to use separate work packages for activities that are linked to the following specific budget categories (D.2 Studies, D.3 Synergetic elements, D.4 Works in outermost regions and D.5 Land purchase, if applicable).

Work packages covering financial support to third parties ⚠ only allowed if authorised in the Call document) must describe the conditions for implementing the support (for grants: max amounts per third party; criteria for calculating the exact amounts, types of activity that qualify (closed list), persons/categories of persons to be supported and criteria and procedures for giving support; for prizes: eligibility and award criteria, amount of the prize and payment arrangements).

⚠ *Enter each activity/milestone/output/outcome/deliverable only once (under one work package).*

⚠ *Ensure consistency with the detailed budget table per WP/calculator (if applicable) (n/a for prefixed Lump Sum Grants)*

Objectives

. Describe the objective of the work package and how it contributes/relates to the overall and specific objectives of the project.

State if there are links to other work packages (or conversely that there are no links to any other work package).

Activities (WP description)

Provide a concise overview of the work (planned tasks). Be specific and give a short name and number for each task. Provide quantitative information (dimensions, capacity of infrastructure, etc).

Mention for each task links with tasks planned under other work packages. Flag tasks which are on the critical path.

*Show who is participating in each task: Coordinator (COO), Beneficiaries (BEN), Affiliated Entities (AE), Associated Partners (AP), indicating **in bold** the task leader.*

Add information on other participants' involvement in the project e.g. subcontractors.

Complete the column on subcontracting. Subcontracts must be awarded using your usual purchasing practices – provided that they ensure best value for money and no conflict of interests. If you are a public procurer ('contracting authority/entity' within the meaning of the EU Directives on public procurement), you must also comply with the applicable national law on public procurement."

Note:

The Coordinator remains fully responsible for the coordination tasks, even if they are delegated to someone else. Coordinator tasks cannot be subcontracted.

Milestones and deliverables (outputs/outcomes)

***Milestones** are control points in the project that help to chart progress.*

The milestones must be SMART: specific, measureable, achievable, relevant and time-related and must have clearly identified means of verification. The number of milestones per work package will depend on the complexity of each work package. Each work package should have at least two milestones related to it, ideally, one milestone per activity and per year. If needed, one or more intermediate milestones can be added, particularly for long or very complex and costly work packages. Examples of milestones include publication of a tender, signature of contract, starting of study/works, technical progress as certified by the works/studies subcontractors, etc.

***Means of verification** are how you intend to prove that a milestone has been reached. If appropriate, you can also refer to indicators. They should be easy and concrete. Examples of means of verification include: publication of the tender notice, signature of a contract by the last party, acceptance/approval of final report/outcome, etc. A deliverable can be also used as a mean of verification for a milestone.*

***Deliverables** are project outputs which are submitted to show project progress (any format) and achievement of the technical work. Refer only to major outputs. Do not include minor sub-items, internal working papers, meeting minutes, etc.*

Examples of deliverables for works projects include: constructed rail section, built bridge, deployed charging stations, concluded contract, published manuals, construction of the transmission line [name of the line], commissioning of the transmission line [name of the line], constructed transmission tower, deployed submarine cable, etc. For deliverables which are physical investments, provide in the 'Description' field the type of document you will use to prove the completion of the deliverable (e.g. acceptance note, test protocol, certificate of completion, handover certificate, etc).

Examples of deliverables for studies include: a technical design, an engineering design, a completed analysis, an environmental report, data collection, creation of a model and description of scenarios, etc. For such deliverables, provide in the 'Description' field: confirmation of completion and/or approval of technical design, copy of environmental report, etc.

For deliverables such as meetings, events, seminars, trainings, workshops, webinars, conferences, etc., enter each deliverable separately and provide the following in the 'Description' field: invitation, agenda, signed presence list, report of the event, presentations.

For deliverables such as manuals, toolkits, guides, reports, leaflets, brochures, training materials etc., add in the 'Description' field: format (electronic or printed), language(s), approximate number of pages and estimated number of copies of publications (if any).

For each deliverable you will have to indicate a due month by when you commit to upload it in the Portal. The due month of the deliverable cannot be outside the duration of the work package and must be in line with the timeline provided below. Month 1 marks the start of the project and all deadlines should be related to this starting date.

The labels used mean:

Public — fully open ⚠ automatically posted online on the Project Results platforms)

Sensitive — limited under the conditions of the Grant Agreement

EU classified — RESTREINT-UE/EU-RESTRICTED, CONFIDENTIEL-UE/EU-CONFIDENTIAL, SECRET-UE/EU-SECRET under Decision 2015/444. For items classified under other rules (e.g. national or international organisation), please select the equivalent EU classification level.

⚠ *Please note that milestones/deliverables should relate to the project work. Periodic reports or final reports linked to payments should NOT be included.*

Work Package 1

Work Package 1: CO 01 – Interconnection of Bussoleno

Duration:	[redacted]	Lead Beneficiary:	TELT

Objectives

This Work Package includes all the activities related to the Operating Construction Site 1. **The Operating Construction Site aims at realizing the construction of the 2 km Susa-Bussoleno interconnecting tunnel including the connection of the NLTL with the historic line in the station of Bussoleno.**

Only one task is foreseen for this WP: Task 1.1 Interconnection of Bussoleno - CO 01
The following main construction works are foreseen:

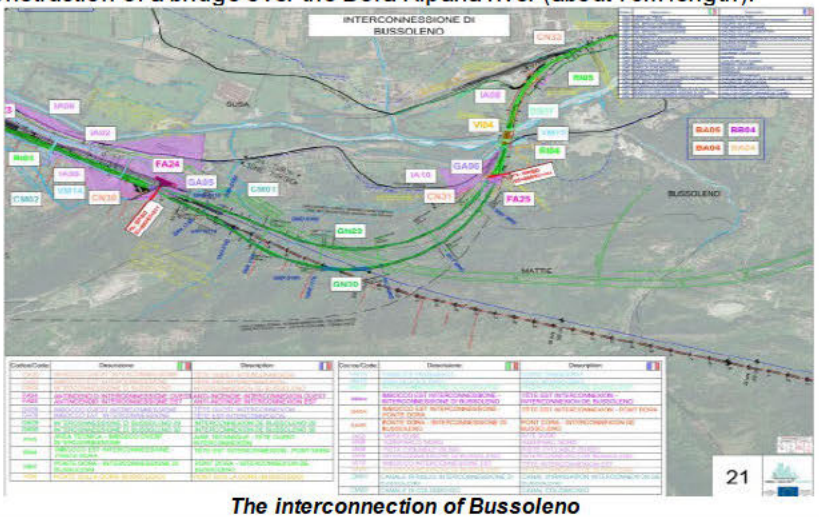
- The construction of 2 interconnecting tunnels of 2 kms between Susa and Bussoleno;
- The construction of the technical areas and the railway buildings serving the line (Command and Control systems, first aid structures, fire-fighting buildings, railway buildings etc.);
- The connecting tracks of the new line with the historic line in Bussoleno;
- The construction of a bridge over the Dora Riparia river (about 75m length) before the entrance in the station of Bussoleno.

The interconnection is necessary to allow the trains to maintain an adequate travel dynamic, in terms of speed and slopes of the line, when exiting the base tunnel.
TELT will carefully respect the rules foreseen by European regulation about the Double Financing (Regulation EU 2021/1153, Art. 19).

	Future Grant Agreement			
Technical progress	[redacted]	[redacted]	[redacted]	[redacted]
Task 1.1 - CO 01	0%	0%	10%	100%
WP1	**0%**	**0%**	**10%**	**100%**

Activities (WP description)

Task No		Description	Participants	

(continuous numbering linked to WP)	Task Name		Name	Role (COO, BEN, AE, AP, OTHER)	Subcontracting (Yes/No and Percentage of the task that will be subcontracted).
T1.1	Interconnection of Bussoleno - CO 01	This task concerns the works envisaged for WP1 and Operating Construction Site 01 related to: • The 2km interconnecting tunnels Susa-Bussoleno: consisting in two tubes of 2km each excavated in traditional method, including the artificial tunnels at the entrances. The tunnels will run in parallel with variable distance. The excavation will start in Susa and will proceed towards Bussoleno; • The construction of the technical areas and the railway buildings serving the line (Command and Control systems, first aid structures, fire-fighting buildings, etc.); • The connecting tracks of the new line with the historic line in Bussoleno; • The construction of a bridge over the Dora Riparia river (about 75m length).  *The interconnection of Bussoleno*	TELT	COO, BEN	Yes – 100%
Milestones and deliverables (outputs/outcomes)					

Milestone No (continuous numbering not linked to WP)	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
[redacted]	Completion rate of CO 01 at month [redacted] 10%	1	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 10%
[redacted]	Completion rate of CO 01 at month [redacted] 100%	1	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 100%

Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D1.1	Task 1.1 – C0 01 – Signature of the contract	1	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Signature of the contract with the subcontractor (PDF – ENG)
D1.2	Completion rate of Task 1.1 at month [redacted] 0%	1	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 0% (PDF - ENG)

Work Package 2

Work Package 2: CO 02 - Civil works in Susa plain			
Duration:	[redacted]	**Lead Beneficiary:**	**TELT**
Objectives			
This Work Package includes all the activities related to the Operating Construction Site 02. **This Work Package consists in the realization of the all the open-air civil works in Susa plain to realize the NLTL infrastructure between the East entrance of the base tunnel and the interconnecting tunnel between Susa and Bussoleno.** Four tasks are foreseen for this WP: Task 2.1 Open-air civil works CO 02A; Task 2.2 Adaptation of A32 motorway and new Susa Est interchange CO 02B; Task 2.3 New Autoport[redacted] CO 02C; Task 2.4 New "Safe driving" track[redacted] CO 02D; Task 2.5 Info point Henry Barrack CO 02E			

The following main construction works are foreseen:

- The construction of the railway infrastructure in the Susa plain connecting the Eastern entrance of the base tunnel with the interconnecting tunnel of Bussoleno (Task 2.1);
- The adaptation of the motorways and streets around the railway line, especially the A32 motorway and the construction of the new Susa Est interchange (Tasks 2.1 and 2.2);
- The construction of a new Autoport between San Didero and Bruzolo, managed by [redacted] replacing the current one in Susa, clearing the areas involved by the construction site of the base tunnel. The new Autoport will be used by the heavy vehicles involved in the construction works and will be used in case of exceptional events avoiding queues of heavy goods vehicles that could block the motorway by diverting them to a special temporary rest area while waiting for ordinary motorway traffic conditions to be restored. (Task 2.3);
- The relocation of the Safe driving track managed by the company [redacted] clearing the areas involved by the construction site of the base tunnel (Task 2.4);
- The Henry Barrack building, part which will be renovated and transformed into a 'TELT Info Point' for the duration of the NLTL works (Task 2.5).

It is worth to mention that the construction of the international station of Susa, part of the Global Project, is not included in this application proposal since the design studies and approval process is still ongoing.
TELT will carefully respect the rules foreseen by European regulation about the Double Financing (Regulation EU 2021/1153, Art. 19).

	Future Grant Agreement			
Technical progress	[redacted]	[redacted]	[redacted]	[redacted]
Task 2.1 - CO 02A	0%	0%	15%	100%
Task 2.2 - CO 02B	0%	1%	46%	100%
Task 2.3 - CO 02C	0%	100%	100%	100%
Task 2.4 - CO 02D	0%	14%	100%	100%
Task 2.5 - CO 02E	87%	100%	100%	100%
WP2	**21%**	**36%**	**63%**	**100%**

TELT will carefully respect the rules foreseen by European regulation about the Double Financing (Regulation EU 2021/1153, Art. 19).

Lay out of the Susa Plain after the completion of the works

Activities (WP description)

Task No (continuous numbering linked to WP)	Task Name	Description	Participants		Subcontracting (Yes/No and Percentage of the task that will be subcontracted).
			Name	Role (COO, BEN, AE, AP, OTHER)	
T2.1	Open-air civil works CO 02A	This Task concerns the realization of the open-air civil works in Susa plain to realize the NLTL infrastructure works between the East entrance of the base tunnel and the West entrance of the interconnecting tunnel, for about 2,700 km. In particular the following works are planned: • The construction of a section of the line between the entrance of the base tunnel and the international station of Susa, realized on a railway embankment;	TELT	COO, BEN	Yes – 100%

		• The construction of a new 98 meters railway arc bridge over the Dora Ripa after the exit from the station; • A railway underpass of the A32 motoway; • A technical area, consisting in a section of the line with 4 tracks 750 meters long to be used for safety and traffic management purposes, an adjacent area with various buildings dedicated to technical offices including a medical emergency area and an heliport; Various interventions for resolving the interferences with the local road system.			
T2.2	Adaptation of A32 motorway and new Susa Est interchange CO 02B	The adaptation of the motorway A32 and the construction of the new interchange in Susa, that is necessary for connecting the construction sites with the Susa plain, facilitating the operations of the heavy vehicles and the transfer of the materials from and to the Operating Construction Sites; This work is complementary to the creation of the new interchange in Chiomonte (CO 3-4) to allow an efficient connection of the digging site with the plain of Susa.	TELT	COO, BEN	Yes – 100%
T2.3	New Autoport [redacted] CO 02C	The construction a new car and truck terminal -Autoport- between San Didero and Bruzolo transferring the current one in Susa. This intervention is necessary for managing the overall transport flows in the area concerned by the construction works of the new railway line and to clear the areas at the entrance of the base tunnel that will be used for the supply of the materials and for the temporary storage of the excavated material. The Autoport includes a truck station, a parking area for heavy vehicles, a service area and a new centralised control post. A new roundabout will connect the Autoport to the main road, while access from the A32 motorway will be provided by two entry and exit ramps. The new autoport is an essential part of the works in case of exceptional events such as heavy snowfalls, accidents in the Fréjus tunnel, etc. allowing avoiding queues of heavy goods vehicles that could block the motorway by diverting them to a special temporary rest area while waiting for ordinary motorway traffic conditions to be restored. This is particularly relevant also considering the traffic that will be generated by the construction works on the base tunnel. This Task is under the responsibility of [redacted] acting as implementing body, and the financing is under the responsibility of TELT.TELT will carefully respect the rules foreseen by European regulation about the Double Financing (Regulation EU 2021/1153, Art. 19) and the budget for this task will start from [redacted] without overlapping the Grant Agreement in force (2014-EU-TM-0401-M).	TELT	COO, BEN	Yes – 100%
T2.4	New “Safe driving” track [redacted] CO 02D	The construction of a new Safe driving track, transferring the existing one managed by [redacted] is necessary for clearing the area involved by the construction site of the base tunnel in Susa. This Task is under the responsibility of [redacted] acting as implementing body, and the financing and management will be under the responsibility of TELT.	TELT	COO, BEN	Yes – 100%
T2.5	Info point Henry Barrack CO 02E	The Henry Barrack building is owned by the Italian State and is currently partly used by the Guardia di Finanza (Italian finance police). Part of the building will be renovated and transformed into a TELT Info Point for the duration of the NLTL works. Once the NLTL works will be completed, the premises used for Info point will be returned to the Guardia di Finanza.	TELT	COO, BEN	Yes – 100%

Milestones and deliverables (outputs/outcomes)

Milestone No (continuous numbering not linked to WP)	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
[redacted]	Completion rate of CO 02 at month [redacted] 21%	2	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 21%
[redacted]	Completion rate of CO 02 at month [redacted] 36%	2	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 36%
[redacted]	Completion rate of CO 02 at month [redacted] 63%	2	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 63%
[redacted]	Completion rate of CO 02 at month [redacted] 100%	2	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 100%

Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D2.1	Task 2.2– Signature of the contract	2	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Signature of the contract with the subcontractor (PDF – ENG)
D2.2	Task 2.4– Signature of the agreement with [redacted]	2	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Signature of the agreement with [redacted] (PDF – ENG)
D2.3	Task 2.5 - Completion of the Henry Barrack	2	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director certifying the completion of the works (PDF - ENG)
D2.4	Completion rate of Task 2.1 at month [redacted] 0%	2	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial progressactual financial and technical progress of the works certifying the achievement of the 0% (PDF ENG)

D2.5	Completion rate of Task 2.2 at month [redacted] 0%	2	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial progressactual financial and technical progress of the works certifying the achievement of the 0% (PDF ENG)
D2.6	Completion rate of Task 2.3 at month [redacted] 20%	2	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial progressactual financial and technical progress of the works certifying the achievement of the 20% (PDF ENG)
D2.7	Completion rate of Task 2.4 at month [redacted] 0%	2	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial progressactual financial and technical progress of the works certifying the achievement of the 0% (PDF ENG)
D2.8	Completion rate of Task 2.5 at month [redacted] 100%	2	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial progressactual financial and technical progress of the works certifying the achievement of the 100% (PDF ENG)
D2.9	Task 2.3 - Finishes of the technical buildings and parking area finalization	2	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director certifying the progress of the works (PDF - ENG)
D2.10	Task 2.1– Signature of the contract	2	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Signature of the contract with the subcontractor (PDF – ENG)
D2.11	Task 2.4 - Completion of the New "Safe driving" track [redacted]	2	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director certifying the completion of the works (PDF - ENG)

Work Package 3

Work Package 3: CO 03-04 – Base Tunnel Maddalena-Susa			
Duration:	[redacted]	**Lead Beneficiary:**	**TELT**
Objectives			

This Work Package includes all the activities related to the Operating Construction Site 03-04 and **consists in the excavation of the base tunnel along the section between La Maddalena and Susa**, under the Ambin massif.

Three tasks are foreseen for this WP: Task 3.1 Construction of the base tunnel between Susa and La Maddalena CO 03 – 04; Task 3.2 Chiomonte A32 Interchange CO 04 C

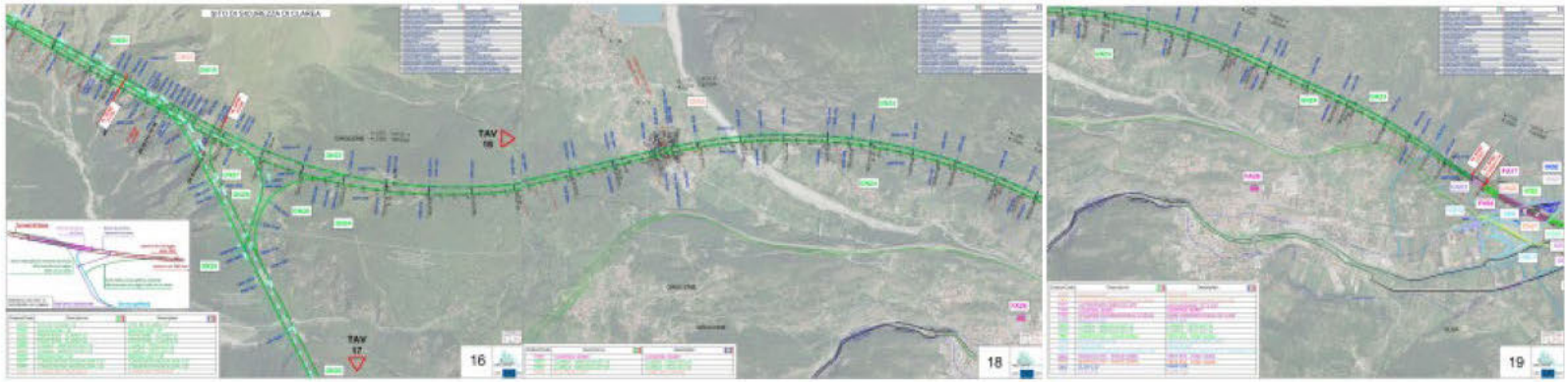
The following main construction works are foreseen:

- the construction of the access tunnel of La Maddalena 2 and of the base tunnel towards Susa (Task 3.1): the excavation of La Maddalena 2 of around 7 km will start in [redacted] and it will be used as a survey tunnel, having the same diameter of the base tunnel. Traditional excavation method and TBM will be used for realizing it. According to the variant study this tunnel will be the access point for the TBM which will begin boring towards Susa, realizing around 9,5 km of base tunnel in each direction, totalling 19 km of base tunnel. Once operational, La Maddalena 2 will be used for ventilation and smoke extraction for the base tunnel, and, partially, for the definitive storage of dangerous green rocks after the excavation phase. The construction of connecting tunnels to be used for the access of the safety vehicles, ventilation, storage of green rocks and the realization of the Clarea safety site is also foreseen.
- the new interconnection with the A32 Motorway (Task 3.2): this interconnection will consist in a new dedicated motorway junction, used as service road during the construction works, in order to avoid impacts on road traffic in Chiomonte during the realization of the works. After the completion of the project, the junction will remain available to emergency services and as an access road to the base tunnel. The project provides for the construction of a bidirectional viaduct of around 600 metres from the exit of the 'Giaglione' gallery, which will allow to reach the site directly.

Complementary works for the realization of technical caverns, logistic sites for the assembling of the TBM inside the base tunnel, inner tube tunnels are foreseen for this WP.

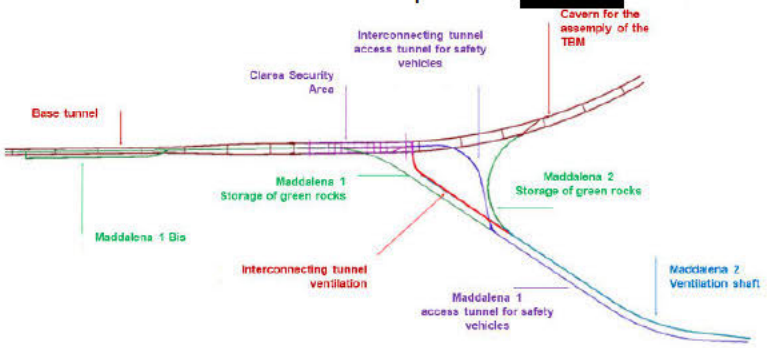
TELT will carefully respect the rules foreseen by European regulation about the Double Financing (Regulation EU 2021/1153, Art. 19).

	Future Grant Agreement			
Technical progress	[redacted]	[redacted]	[redacted]	[redacted]
Task 3.1 - CO 03-04	13%	36%	67%	100%
Task 3.2 - CO 04C	71%	100%	100%	100%
WP3	**24%**	**48%**	**73%**	**100%**



Drawings of the Operating Construction sites 03-04 of the Turin-Lyon base tunnel

Activities (WP description)

Task No (continuous numbering linked to WP)	Task Name	Description	Participants		Subcontracting (Yes/No and Percentage of the task that will be subcontracted)
			Name	Role (COO, BEN, AE, AP, OTHER)	
T3.1	Construction of the base tunnel between Susa and La Maddalena CO 03 - 04	Within this Task, the following main construction works will be realized: • Maddalena 2 access tunnel: starting from the construction site of Chiomonte, it will run in parallel to the Maddalena 1 tunnel. This infrastructure of 7 Km is under construction, it is used as a survey tunnel, having the same diameter of the base tunnel. During the works, this will be the access point for the TBM which will begin boring towards Susa. Once operational, La Maddalena 2 will be used for ventilation and smoke extraction for the base tunnel, and, partially, for the definitive storage of green rocks. The start of the excavation with TBM is expected in [redacted].  ***Operating construction site of Chiomonte*** • Connecting tunnels: two connecting tunnels of 1,05 km each will be excavated serving for the movement of the vehicles and for interconnections between the main excavation sites. • La Maddalena 1 bis: which is an integration of La Maddalena 1 exclusively dedicated to hosting the excavated material in case of presence of green rocks. • Base tunnel: realizing around 9,5 km of base tunnel in each direction, totalling 19 km of base tunnel. It will be realized with 2 TBMs working in parallel. • Clarea safety site: the construction of Clarea safety area and logistic cavern will be conducted with traditional methods of earthworks activities. After the completion of the base tunnel, the Clarea cavern will be used for safety area, while during the construction works it is used for logistics purposes.	TELT	COO, BEN	Yes – 100%

		• Complementary works: such as the assembling of the TBM inside the base tunnel, the construction of the logistic sites and the construction of the technical caverns. The excavation of the base tunnel is expected to be completed in [redacted] for the Northern tunnel and in [redacted] for the Southern tunnel.			
T3.2	Chiomonte A32 Interchange 04C	This task concerns the Chiomonte A32 Interchange, covering the construction of the new interchange in Chiomonte which will connect the A32 motorway to the worksite of 'La Maddalena'. The new interchange will be constructed in viaduct, with variable height, and it will be composed by two lanes of 719 m (towards Torino) and 674 m (towards Bardonecchia). The reason of this interchange is its use by the heavy-goods vehicles to supply materials to the worksite and carry the excavation materials to the deposit sites in Susa Valley without using the local roads. It will be also possible to reach directly from the construction sites the motorway, without causing traffic in the surrounding municipalities. This Task is under the responsibility of [redacted] acting as implementing body, and the financing and management will be under the responsibility of TELT. TELT will carefully respect the rules foreseen by European regulation about the Double Financing (Regulation EU 2021/1153, Art. 19) and the budget for this task will start from [redacted] without overlapping the Grant Agreement in force (2014-EU-TM-0401-M).	TELT	COO, BEN	Yes – 100%

Milestones and deliverables (outputs/outcomes)

Milestone No (continuous numbering not linked to WP)	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
[redacted]	Completion rate of CO 03-04 at month [redacted] 24%	3	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 24%
[redacted]	Completion rate of CO 03-04 at month [redacted] 48%	3	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 48%
[redacted]	Completion rate of CO 03-04 at month [redacted] 73%	3	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 73%
[redacted]	Completion rate of CO 03-04 at month [redacted] 100%	3	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 100%

Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D3.1	Completion rate of Task 3.1 at month [redacted] 20% corresponding to the completion of traditional excavation (100m)	3	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 20% and the completion of the traditional excavation (PDF - ENG)
D3.2	Completion rate of Task 3.2 at month [redacted] 61% corresponding to 300m excavated of the viaduct	3	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 61% and the excavation of 300m of the viaduct (PDF - ENG)
D3.3	Task 3.2 - New A32 interchange of Chiomonte completed	3	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	New A32 interchange opened to traffic (PDF - ENG)
D3.4	Task 3.1 - Start of excavation works with 1 TBM from La Maddalena to Susa plain	3	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director certifying the start of the works (PDF - ENG)
D3.5	Task 3.1 – completion of the excavation of La Maddalena 2 (2,5 km) and excavation of 9,5 km of the base tunnel	3	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director certifying the completion of the excavation of La Maddalena 2 (2,5 km) and excavation of 9,5 km of the base tunnel (PDF - ENG)

Work Package 4

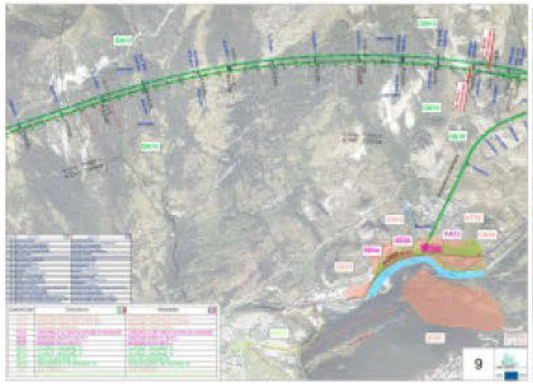
Work Package 4: CO 05 – Base Tunnel Modane-Maddalena			
Duration:	[redacted]	**Lead Beneficiary:**	**TELT**
Objectives			
This Work Package includes all the activities related to the Operating Construction Site 05, **focused on the excavation of the base tunnel along the section between Modane and La Maddalena**. Two tasks are foreseen for this WP: Task 4.1 Construction of the base tunnel between Modane and La Maddalena CO 05; Task 4.2. Construction of the two shafts in the Municipality of Avrieux 05A. The following main construction works are foreseen:			

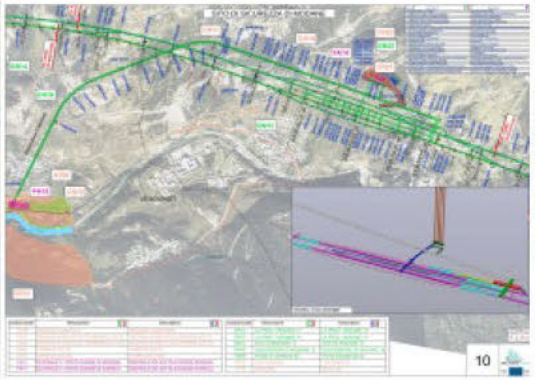
- the excavation from the area of Villarodin-Bourget/Modane of a double tube section with TBMs towards "La Maddalena", for about 18 km each direction, totalling 36 km (Task 4.1);
- the excavation from the area of Villarodin-Bourget/Modane of a double tube section in traditional method towards "La Praz" (Task 4.1);
- the construction of 'Modane security area' with traditional method (Task 4.1); the construction of the ventilation shafts in the municipality of Avrieux (Task 4.2).

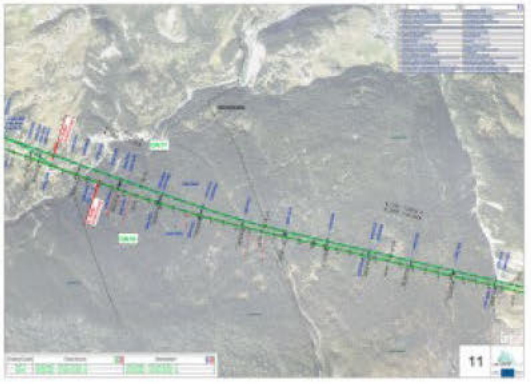
Complementary works for the realization of technical caverns, logistic sites for the assembling of the TBM inside the Base Tunnel, inner tube tunnels are foreseen for this WP.

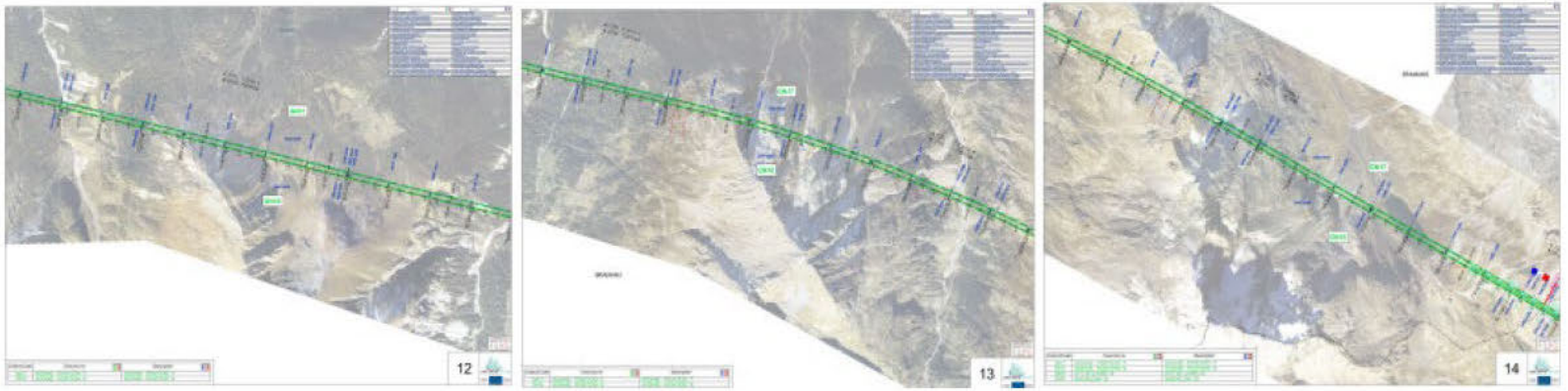
TELT will carefully respect the rules foreseen by European regulation about the Double Financing (Regulation EU 2021/1153, Art. 19).

	Future Grant Agreement			
Technical progress	[redacted]	[redacted]	[redacted]	[redacted]
Task 4.1 - CO 05	1%	3%	36%	100%
Task 4.2 - CO 05A	73%	100%	100%	100%
WP4	**14%**	**20%**	**47%**	**100%**





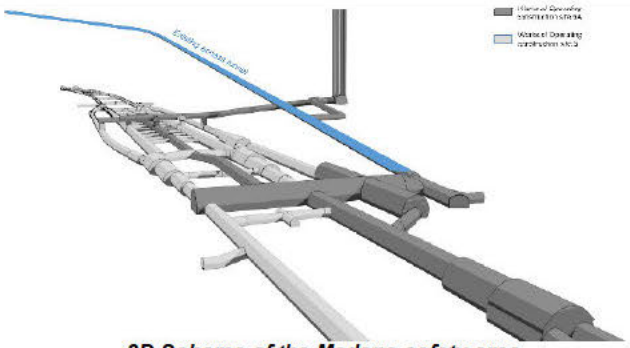




Drawings of the Operating Construction site 05 of the Turin-Lyon base tunnel

Activities (WP description)

Task No (continuous numbering linked to WP)	Task Name	Description	Participants		Subcontracting (Yes/No and Percentage of the task that will be subcontracted).
			Name	Role (COO, BEN, AE, AP, OTHER)	
T4.1	Construction of the base tunnel between Modane and La Maddalena CO 05	This task includes the base tunnel civil works along the section Villarodin-Bourget/Modane realizing an excavation of a double tube section in mechanized excavation with 2 TBMs towards La Maddalena and the excavation of a double tube section in traditional method towards La Praz for about 3,76 km each direction, totalling 7,5 km. The excavation towards Modane will proceed with two TBMs boring in parallel. The construction of the Modane security area (approx. 750m) is also envisaged within this Task.	TELT	COO, BEN	Yes – 100%

		 ***3D Scheme of the Modane safety area*** The excavation is expected to be completed by the end of 2029 for the Northern tunnel and at the beginning of [redacted] for the Southern tunnel while the part of the tunnel excavated towards La Praz with traditional method will be completed in [redacted].			
T4.2	Construction of the two shafts in the Municipality of d'Avrieux 05A	This task covers the realisation of two vertical shafts (length 500 m each one) that will allow air supply of the base tunnel. • They will start at the bottom of the Villarodin-Bourget/Modane site and will reach the surface in the territory of the Avrieux municipality. • These shafts will also be used for ventilation during the construction stage of the underground Modane safety area and the base tunnel from the Modane/Villarodin-Bourget access tunnel. The construction of the ventilation shafts is expected to be completed by the [redacted]. The budget for this task will start from March 2024 without overallping the Grant Agreement in force.	TELT	COO, BEN	Yes – 100%

Milestones and deliverables (outputs/outcomes)

Milestone No (continuous numbering not linked to WP)	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
[redacted]	Completion rate of CO 05 at month [redacted] 14%	4	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 14%
[redacted]	Completion rate of CO 05 at month [redacted] 20%	4	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 20%

[redacted]	Completion rate of CO 05 at month [redacted]: 47%	4	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 47%
[redacted]	Completion rate of CO 05 at month [redacted] 100%	4	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 100%

Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D4.1	Completion rate of Task 4.1 at month [redacted]:2% corresponding to the order of 2 Wurms	4	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 2% and the order of the Wurms(PDF - ENG)
D4.2	Completion rate of Task 4.2 at month [redacted]:84% corresponding to 4 shafts bored	4	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 84% and the boring of 4 shafts (PDF - ENG)
D4.3	Task 4.1 - Start of excavation works with 2 TBMs from Modane to La Maddalena	4	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director certifying the start of the works (PDF - ENG)
D4.4	Task 4.2 – Completion of Avriuex Shafts excavation and starting of coating activities	4	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director certifying the progress of the works (PDF - ENG)

Work Package 5

Work Package 5: CO 06-07 – Base Tunnel La Praz-Modane-S. Martin La Porte

Duration:	[redacted]	Lead Beneficiary:	TELT

Objectives

This Work Package includes all the activities related to the Operating Construction Site 06-07. This Work Package concerns the excavation of the **base tunnel along the sections between S. Martin La Porte and La Praz and between La Praz and Modane**. The Southern tube of the base tunnel between S. Martin La Porte and La Praz was completed in 2019 for about 9 km. In addition, two access tunnels are already in place, one in St. Martin La Port (2,4 km, completed in 2010), and one in La Praz (2,5 km, completed in 2009). Once the base tunnel becomes operational, these access tunnels will serve as a ventilation duct and as a maintenance and safety passage.
Two main Tasks are envisaged for this Work Package: Task 5.1 Construction of the base tunnel between La Praz and Modane CO 06; Task 5.2 Construction of the base tunnel between S. Martin La Porte and La Praz. CO 07.
The following main construction works are foreseen:

- the excavation of the Northern single tube section from St. Martin La Porte and La Praz for about 8,9 km with 1 TBM (Task 5.2).
- the excavation of a double tube section between La Praz and Modane for about 9,38 km with 2 TBMs (Task 5.1).
- the excavation of La Praz security site in traditional method (750 m) (Task 5.1);
- excavation of a double tube section in traditional excavation method towards the Western entrance from the St. Martin La Porte (2 tubes of 2,14 Km) (Task 5.2)

Complementary works for the realization of technical caverns, logistic sites for the assembling of the TBM inside the base tunnel, inner tube tunnels are foreseen for this WP.
TELT will carefully respect the rules foreseen by European regulation about the Double Financing (Regulation EU 2021/1153, Art. 19).

	Future Grant Agreement			
Technical progress	[redacted]	[redacted]	[redacted]	[redacted]
Task 5.1 - CO 06	30%	61%	87%	100%
Task 5.2 - CO 07	24%	60%	90%	100%
WP5	**29%**	**61%**	**89%**	**100%**

Drawings of the Operating Construction sites 06-07 of the Turin-Lyon base tunnel

Activities (WP description)

Task No (continuous numbering linked to WP)	Task Name	Description	Participants		Subcontracting (Yes/No and Percentage of the task that will be subcontracted).
			Name	Role (COO, BEN, AE, AP, OTHER)	

T5.1	Construction of the base tunnel between La Praz and Modane CO 06	This task covers the constructive works within the section La Praz- Villarodin-Bourget/Modane (CO6) and in particular: • the excavation of a double tube section with TBM between La Praz and Modane (2 tubes of 9.38 km); • the excavation of La Praz security site in traditional excavation method (approx. 750m); The excavation of the security site of La Praz is currently on-going and it will be completed in mid-2026.The TBMs will start excavating the Norther base tunnel in [redacted] and the Southern one in 2026. The boring activities will be completed by the end of [redacted] The budget for this task will start from March 2024 without overlapping the Grant Agreement in force.	TELT	COO, BEN	Yes – 100%
T5.2	Construction of the base tunnel between S. Martin La Porte and La Praz CO 07	This Task covers the base tunnel activities and the section along Saint Martin La Porte - La Praz including the excavation of a tube section towards la Praz (8.9 km) with one TBM and the excavation of a double tube section with traditional method towards the Western entrance (2 tubes of 1, 4 Km each). The TBM will start excavating the northern base tunnel in [redacted] in parallel with the excavation with traditional method towards St Martin La Porte. The budget for this task will start from March 2024 without overlapping the Grant Agreement in force.	TELT	COO, BEN	Yes – 100%

Milestones and deliverables (outputs/outcomes)

Milestone No (continuous numbering not linked to WP)	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
[redacted]	Completion rate of CO 06-07 at month [redacted]: 29%	5	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 29%
[redacted]	Completion rate of CO 06-07 at month [redacted] 61%	5	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 61%
[redacted]	Completion rate of CO 06-07 at month [redacted]: 89%	5	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 89%
[redacted]	Completion rate of CO 06-07 at month [redacted] 100%	5	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 100%

Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D5.1	Completion rate of Task 5.1 at month [redacted] 40%	5	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 40% (PDF - ENG)
D5.2	Completion rate of Task 5.2 at month [redacted] :35%	5	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 35% (PDF - ENG)
D5.3	Task 5.1 - Start of excavation works with 1 TBM from La Praz to Modane	5	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director certifying the start of the works (PDF - ENG)
D5.4	Task 5.2 - Completion of the excavation works with the traditional method of the base tunnel in St Martine La Porte	5	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director certifying the completion of the works (PDF - ENG)

Work Package 6

Work Package 6: CO 08 – Base Tunnel S. Julien Mont Denis-S. Martine La Porte			
Duration:	[redacted]	**Lead Beneficiary:**	**TELT**
Objectives			

This Work Package consists in the **excavation of the base tunnel along the section between S. Julien Mont Denis, at the entrance of the base tunnel, and S. Martin La Porte**, including all the necessary works for the construction of the base tunnel along this section.

One main Task is envisaged for this Work Package: Task 6.1 Construction of the base tunnel between S. Julien Mont Denis - S. Martin La Porte CO 08.

The following main construction works are foreseen:

- The excavation of the base tunnel along this section, consisting in the excavation from the Western entrance of two tubes of about 3 km each, totalling more than 6 km, using the traditional excavation method, and more precisely the "umbrella arch method (UAM)" (Task 6.1). Woks are currently on-going and around 450

meters have been excavated. All the preliminary works on at Villard Clement have been completed (such as installation of platforms, ventilation, cooling and drainage installations required for underground works, installations to remove excavation materials).

- At the entrance of the tunnel an artificial tube, constructed with cut and cover method is already in place (corresponding to the Operating Construction Site CO09.A – "tranche couvert"-completed) and this infrastructure will represent the entrance to the base tunnel on the French site. More specifically, the entrance of the base tunnel will be at the covered trench that will allow the new railway line to pass under the A43 motorway at Villard-Clément. At the end of the works, within this WP, all the construction site between the entrance of the tunnel at the tranche couvert and the Operating Construction Site in S. Julien Mont Denis, will be covered with terrain in order to restore the natural landscape.

TELT will carefully respect the rules foreseen by European regulation about the Double Financing (Regulation EU 2021/1153, Art. 19).

	Future Grant Agreement			
Technical progress	[redacted]	[redacted]	[redacted]	[redacted]
Task 6.1 - CO 08	38%	79%	98%	100%
WP6	**38%**	**79%**	**98%**	**100%**

Activities (WP description)

Task No (continuous numbering linked to WP)	Task Name	Description	Participants		Subcontracting (Yes/No and Percentage of the task that will be subcontracted)
			Name	Role (COO, BEN, AE, AP, OTHER)	
T6.1	Construction of the base tunnel between S. Julien Mont Denis - S. Martin La Porte. CO 08	The excavation of the base tunnel along this section will include the excavation from west entrance of two tubes of about 3km using the traditional method, and more precisely given the soft geological characteristics of the mountain in this area with the "umbrella arch method (UAM)", as a pre-reinforcement approach of tunnels in complex geological conditions, widely used to maintain the tunnel stability. The works on the base tunnel, along this section, are ongoing, and around 450 m have been completed. At the end of the works, within this WP, all the construction site between the entrance of the tunnel at the tranche couvert and the Operating Construction Site in S. Julien Mont Denis, will be covered with terrain in order to restore the natural landscape. The boring activities will be completed by end of [redacted] The budget for this task will start from March 2024 without overlapping the Grant Agreement in force.	TELT	COO, BEN	Yes – 100%

Milestones and deliverables (outputs/outcomes)

Milestone No (continuous numbering not linked to WP)	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
[redacted]	Completion rate of CO 08 at month [redacted] 38%	6	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 38%
[redacted]	Completion rate of CO 08 at month [redacted] 79%	6	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 79%
[redacted]	Completion rate of CO 08 at month [redacted] 98%	6	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 98%
[redacted]	Completion rate of CO 08 at month [redacted] 100%	6	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 100%

Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D6.1	Completion rate of Task 6.1 at month [redacted] 50% corresponding to 4,6 km of the base tunnel excavated	6	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 50% and the excavation of 4,6 km of the base tunnel(PDF - ENG)
D6.2	Task 6.1 - Completion of the construction of the base tunnel between S. Julien Mont Denis - S. Martin La Porte.	6	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director certifying the completion of the works (PDF - ENG)

Work Package 7

Work Package 7: CO 09 – S. Jean de Maurienne works

Duration:	[redacted]	Lead Beneficiary:	TELT

Objectives

This Work Package consists in **all the construction works at the Western entrance of the base tunnel** to allow the integration of the NLTL with the existing railway network. In Saint Jean de Maurienne plain, civil works at the base tunnel will interfere with the national railway network various works and deviations are required. Paret of this Work Package is under the responsibility of [redacted] as implementing body.
This WP will cover all the construction works on the S.J. de Maurienne plain in order to adapt the existing infrastructures (road and railway) to the future tunnel. Part of these works, related to the adaptation of the railway infrastructure are divided in six phases which are under the responsibility of [redacted] as implementing body, while the financing is under the responsibility of TELT. The construction of a Multimodal Exchange Centre at the station of S. J. de Maurienne is also envisaged under this WP.
Three main Task is envisaged for this Work Package: Task 7.1 Open air construction works in the plain of S. Jean De Maurienne [redacted] CO 09B-12B; Task 7.2 Open air construction works in the plain of S. Jean De Maurienne TELT CO 09C; Task 7.3 Realization of the Arc Bridge CO 09E
The following construction works are foreseen:

- Works for the adaptation of the railway infrastructure of the new line but also of the historic line, in St. Jean the Maurienne, including the construction of technical areas for trains and locos waiting to entry into the tunnel and the construction of the Multimodal Exchange Centre.
- The construction of railway buildings and facilities supporting the overall railway traffic;
- The adaptation of the streets around the new railway line;
- A new bridge on the Arc River after the exit of the tunnel:

Lay out of the St. Jean de Maurienne after the completion of the works

TELT will carefully respect the rules foreseen by European regulation about the Double Financing (Regulation EU 2021/1153, Art. 19).

	Future Grant Agreement			
Technical progress	[redacted]	[redacted]	[redacted]	[redacted]
Task 7.1 - CO 09B	30%	53%	77%	100%

Task 7.2 - CO 09C	0%	0%	23%	100%
Task 7.3 - CO 09E	0%	28%	86%	100%
WP7	**25%**	**48%**	**75%**	**100%**

Activities (WP description)

Task No (continuous numbering linked to WP)	Task Name	Description	Participants		Subcontracting (Yes/No and Percentage of the task that will be subcontracted)
			Name	Role (COO, BEN, AE, AP, OTHER)	
T7.1	Open air construction works in the plain of S. Jean De Maurienne [redacted] CO 09B-12B	The works under the responsibility of [redacted] as implementing body, concern: • The clearing of the track plan of the Saint-Jean-de-Maurienne station, with the objective of relocating certain railway functions to the sites of Saint-Avre and Hermillon and clearing spaces for the construction of the new line. • The creation of the infrastructure for the future new line and the temporary relocation of the historic line to this new platform. • The adaptation of the existing roads in the St. Jean de Maurienne plain, with particular reference to the RD1006 and the RD906 that will be deviated in order to not interfere with the new railways and ensuring the continuity of the works on the existing industrial plants located in this area ([redacted] aluminium factory).	TELT	COO, BEN	Yes – 100%
T7.2	Open air construction works in the plain of S. Jean De Maurienne TELT CO 09C	TELT is responsible for the procedures for bringing the new line into commercial operation. The following works under the responsibility of TELT are foreseen: • The construction of the Passenger Building and the Multimodal Exchange Centre of the cross-border section; • The construction of the maintenance building, the control building, the fire-fighting building concerning the new line and supporting the overall railway traffic; • The implementation of new line equipment (including technical buildings, electrical substations) according to the most recent railway standards; The reinforcement of the embankments of the rivers running in this area, and complementary works for deviations and restoration of roads and associated networks.	TELT	COO, BEN	Yes – 100%
T7.3	Arc Bridge CO 09E	TELT is responsible for the works on the right bank, as well as those of the Arc bridge. The Arc Bridge is 135 metres allowing the new line to cross the river "Arc" before entering the base tunnel on the French side.	TELT	COO, BEN	Yes – 100%

Milestones and deliverables (outputs/outcomes)

Milestone No (continuous numbering not linked to WP)	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
[redacted]	Completion rate of CO 09 at month [redacted] 25%	7	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 25%
[redacted]	Completion rate of CO 09 at month [redacted] : 48%	7	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 48%
[redacted]	Completion rate of CO 09 at month [redacted] : 75%	7	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 75%
[redacted]	Completion rate of CO 09 at month [redacted] 100%	7	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 100%

Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D7.1	Completion rate of Task 7.1 at month [redacted] 37% corresponding to the construction of the retaining walls to create the embankments	7	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 37% and the construction of the retaining walls to create the embankments (PDF - ENG)
D7.2	Completion rate of Task 7.2 at month [redacted] 0%	7	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 0% (PDF - ENG)
D7.3	Completion rate of Task 7.3 at month [redacted] 1% corresponding to the award of the contract	7	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 1% and the award of the contract (PDF - ENG)
D7.4	Task 7.2 – Start of the works of C0 09c	7	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director certifying the start of the works (PDF - ENG)

D7.5	Task 7.1 - Completion of earthworks phase 2 and railway equipment phase 2	7	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director certifying the completion of the works (PDF - ENG)
D7.6	Task 7.3 - Completion of Arc Bridge	7	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director certifying the completion of the works (PDF - ENG)

Work Package 8

Work Package 8: CO 10 - Management of the excavated materials in Italy

Duration:	[redacted]	Lead Beneficiary:	TELT

Objectives

This Work Package includes all the activities related to the Operating Construction Site 10 and consists in the management of excavated materials produced during the construction of the cross-border section on the Italian side. The management strategy of excavated materials is intended to reduce negative impacts of transports by reducing, as much as possible the externalities produced. Overall, around 37 million tons of rocks are expected to be extracted from the works on the cross-border section. More specifically the excavated material of the Italian Operating Construction Sites will be transported by trucks in the industrial site, under construction, of Salbertrand. Thus, the material will be selected, and we estimate that approximately the 60% of them will be reused for the production of tunnel lining segments or other structures of the base tunnel. This process will take place directly in Salbertrand where all the industrial processes to produce the structural elements for the construction of the overall base tunnel will be located. The remaining share of excavated material, unusable for the construction of the tunnel, will be transported via rail directly from Salbertrand to the sites of Torrazze and Caprie in Piedmont where it will be processed for further uses and re-naturalization purposes. Dangerous green rocks are going to be stored directly inside the tunnel.
A binational agreement/protocol is going to be signed in 2023 to manage and transport the excavated materials across the national borders, to reuse them for the construction of the Turin-Lyon cross-border section.
One main Task is envisaged for this Work Package: Task 8.1 Management of the excavated materials in Italy CO 10.
TELT will carefully respect the rules foreseen by European regulation about the Double Financing (Regulation EU 2021/1153, Art. 19).

	Future Grant Agreement			
Technical progress	[redacted]	[redacted]	[redacted]	[redacted]
Task 8.1 - CO 10	20%	56%	89%	100%
WP8	**20%**	**56%**	**89%**	**100%**

Activities (WP description)

Task No	Task Name	Description	Participants	Subcontracting

(continuous numbering linked to WP)			Name	Role (COO, BEN, AE, AP, OTHER)	(Yes/No and Percentage of the task that will be subcontracted).
T8.1	Management of the excavated materials in Italy CO 10	This Taks includes all the activities related to the Operating Construction Site 10 and consists in the management of excavated materials produced during the construction of the cross-border section on the Italian side.	TELT	COO, BEN	Yes – 100%

Milestones and deliverables (outputs/outcomes)

Milestone No (continuous numbering not linked to WP)	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
[redacted]	Completion rate of CO 10 at month [redacted] 20%	8	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 20%
[redacted]	Completion rate of CO 10 at month [redacted] 56%	8	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site		Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 56%
[redacted]	Completion rate of CO 10 at month [redacted] 89%	8	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site		Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 89%
[redacted]	Completion rate of CO 10 at month [redacted] 100%	8	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site		Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 100%

Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D8.1	Completion rate of Task 8.1 at month [redacted] 30% corresponding to 100.000 tons of rocks extracted/handled	8	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 30% and the extraction/handling of 100.000 tons of rocks (PDF - ENG)

D8.2	Completion rate of Task 8.1 at month [redacted] 100%	8	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 100% (PDF - ENG)

Work Package 9

Work Package 9: CO 11 - Management of the excavated materials in France			
Duration:	[redacted]	**Lead Beneficiary:**	**TELT**

Objectives

This Work Package includes all the activities related to the Operating Construction Site 11 and consists in the management of excavated materials produced during the construction of the cross-border section on the French side. Overall, around 37 million tons of rocks are expected to be extracted from the works on the cross-border section.
On the French side, for all the Operating Construction Sites, three main types of sites for the management of the excavated materials are foreseen: sites for the material treatment, sites for the temporary storage and sites for the final deposit. The final deposit are located in Plan d'Arc, Les Resses and Les Tierces. Temporary storage sites are located in Illaz, Plan d'Arc, Les Tierces, Les Epines. The treatment of the material takes place in Illaz and Le Moulin (eastern sector of the Villarodin-Bourget/Modane platform). The tunnel lining segments and the other structures of the base tunnel will be realized in La Chapelle.
Dangerous green rocks are going to be stored directly inside the tunnel.
The infrastructures necessary for the transit and evacuation of materials foresees road infrastructure including the Modane ring road connected with the A43 motorway and the railway infrastructure, to allow the transportation of the materials from all the outdoor and underground construction sites (La Praz, S. Martin La Porte, Modane, S. Jean Mont Denis, S. J. de Maurienne plain).
A binational agreement was signed to manage and transport the excavated materials across the national borders, to reuse them for the construction of the Turin-Lyon cross-border section.
One main Task is envisaged for this Work Package: Task 9.1 Management of the excavated materials in France CO 11.
TELT will carefully respect the rules foreseen by European regulation about the Double Financing (Regulation EU 2021/1153, Art. 19).

	Future Grant Agreement			
Technical progress	[redacted]	[redacted]	[redacted]	[redacted]
Task 9.1 - CO 11	10%	32%	64%	100%
WP9	**10%**	**32%**	**64%**	**100%**

Activities (WP description)

Task No	Task Name	Description	Participants	Subcontracting

(continuous numbering linked to WP)			Name	Role (COO, BEN, AE, AP, OTHER)	(Yes/No and Percentage of the task that will be subcontracted).
T9.1	CO 11 - Management of the excavated materials in France CO 11	This Work Package includes all the activities related to the Operating Construction Site 11 and consists in the management of excavated materials produced during the construction of the cross-border section on the French side.	TELT	COO, BEN	Yes – 100%

Milestones and deliverables (outputs/outcomes)

Milestone No (continuous numbering not linked to WP)	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
[redacted]	Completion rate of CO 11 at month [redacted] 10%	9	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 10%
[redacted]	Completion rate of CO 11 at month [redacted] 32%	9	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 32%
[redacted]	Completion rate of CO 11 at month [redacted] 64%	9	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 64%
[redacted]	Completion rate of CO 11 at month [redacted] 100%	9	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 100%

Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D9.1	Completion rate of Task 9.1 at month [redacted]: 16% corresponding to construction activities of the STM of Illaz and Le Moulin (Modane)	9	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 16% and the construction activities of the STM of Illaz and Le Moulin (Modane) (PDF - ENG)

D9.2	Completion rate of Task 9.1 at month 4 [redacted] 100%	9	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 100% (PDF - ENG)

Work Package 10

Work Package 10: CO 00 - General & CO 00P - Prescriptions

Duration:	[redacted]	**Lead Beneficiary:**	**TELT**

Objectives

This Work Package includes all the activities related to the Operating Construction Site 00 and 00P. It covers all the general construction works of minor entity that will be carried out along the overall construction site, such as surveys, archaeological activities, environmental monitoring and the costs for the environmental and civil prescriptions according to the outcomes of the permitting phase. These environmental and civil prescription concern specific environmental actions in Italy and France such as vegetation clearing, preventive archelogy interventions, compensatory measures for wildlife, flora or human activities.
One main Task is envisaged for this Work Package: Task 10.1 CO 00 - General & CO 00P Prescriptions
TELT will carefully respect the rules foreseen by European regulation about the Double Financing (Regulation EU 2021/1153, Art. 19).

	Future Grant Agreement			
Technical progress	[redacted]	[redacted]	[redacted]	[redacted]
Task 10.1 - CO 00 + CO 00P	13%	37%	68%	100%
WP10	**13%**	**37%**	**68%**	**100%**

Activities (WP description)

Task No (continuous numbering linked to WP)	Task Name	Description	Participants		Subcontracting (Yes/No and Percentage of the task that will be subcontracted)
			Name	Role (COO, BEN, AE, AP, OTHER)	
T10.1	CO 00 - General & CO 00P Prescriptions	This task covers all the general construction works of minor entity that will be carried out along the overall construction site, such as surveys, archaeological activities, environmental monitoring and the costs for the environmental and civil prescriptions according to the outcomes of the permitting phase. These environmental and civil prescription concern specific environmental	TELT	COO, BEN	Yes – 100%

		actions in Italy and France such as vegetation clearing, preventive archelogy interventions, compensatory measures for wildlife, flora or human activities.				

Milestones and deliverables (outputs/outcomes)

Milestone No (continuous numbering not linked to WP)	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
[redacted]	Completion rate of CO 00 + 00P at month [redacted] 13%	10	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 13%
[redacted]	Completion rate of CO 00 + 00P at month [redacted] 37%	10	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 37%
[redacted]	Completion rate of CO 00 + 00P at month [redacted] 68%	10	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 68%
[redacted]	Completion rate of CO 00 + 00P at month [redacted] 100%	10	TELT	Completion rate is determined by the financial progress of the works in the Operating Construction Site	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 100%

Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D10.1	Completion rate of Task 10.1 at month [redacted] 20%	10	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 20% (PDF - ENG)
D10.2	Completion rate of Task 10.1 at month [redacted] 100%	10	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 100% (PDF - ENG)

Work Package 11

Work Package 11: Horizontal Activities			
Duration:	[redacted]	**Lead Beneficiary:**	**TELT**

Objectives

This Work Package includes all the Horizontal activities necessary for the implementation of the project: engineering, insurances, interferences. More precisely it covers all the engineering functional studies related to transport, traffic, security and the engineering activities related to the construction. In addition it includes all the works linked to agreements with public utility owners to deviate those utilities whose alignment is interfering with the open-air works in France and in Italy: electricity lines, gas pipes, water, drains, telecommunications, optic fiber. Insurances related to the project are also included (such as for buildings, vehicles, and personnel)
Three Tasks are envisaged for this Work Package: Task 11.1 Insurance, Task 11.2 Engineering and construction supervision, Task 11.3 Resolution of the interferences.
TELT will carefully respect the rules foreseen by European regulation about the Double Financing (Regulation EU 2021/1153, Art. 19).

	Future Grant Agreement			
Technical progress	[redacted]	[redacted]	[redacted]	[redacted]
Task 11.1 - Insurance	23%	48%	76%	100%
Task 11.2 - Engineering and construction supervision	26%	51%	76%	100%
Task 11.3 - Resolution of the interferences	37%	65%	88%	100%
WP11	**27%**	**53%**	**78%**	**100%**

Activities (WP description)

Task No (continuous numbering linked to WP)	Task Name	Description	Participants		Subcontracting (Yes/No and Percentage of the task that will be subcontracted).
			Name	Role (COO, BEN, AE, AP, OTHER)	
T11.1	Insurance	This task covers all the cost for insurances. The approach applied from telt for the realization of this project si an all-risk based insurance that covers liability for civil and environmental damages caused by the realization of this project. Please, also consider the risk management policies applied by TELT described in the chapter 3.4 for mitigating and reducing any risk. The Value of the insurance is reduced, along the time orizon, on the bases of the residual value of the investment.	TELT	COO, BEN	Yes – 100%

T11.2	Engineering and construction supervision	It consists in ensuring the proper execution of interventions from a technical, economic and temporal point of view. In this purpose, activities will be realized both on site and in back-office. The engineering includes services, studies and works that are not directly linkable at the different operational worksites, such as: Engineering functional studies related to transport, traffic, security; Engineering technical studies or audit aimed at checking the engineer (MOE) and the sub-contractors; design and planning; Technical environmental studies and monitoring; Technical studies for supply of rail traction. Among the main aspects to be monitored and controlled he construction supervision there are: - Compliance of construction with design studies - Control of work schedule and budget - Certification of work progress - Authorization of progress payments - Change orders - Conflict resolutions - Coordination of external contractors - Ensures the compliance with the safety and coordination plan.	TELT	COO, BEN	Yes – 100%
T11.3	Resolution of the interferences	This Task covers engineering and works linked to agreements with public utility owners to deviate those utilities whose alignment is interfering with the works: electricity lines, gas pipes, water, drains, telecommunications and optic fibres.	TELT	COO, BEN	Yes – 100%

Milestones and deliverables (outputs/outcomes)

Milestone No (continuous numbering not linked to WP)	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
[redacted]	Completion rate of Horizontal Activities at month [redacted]: 27%	11	TELT	Completion rate is determined by the financial progress	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 27%
[redacted]	Completion rate of Horizontal Activities at month [redacted]: 53%	11	TELT	Completion rate is determined by the financial progress	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 53%
[redacted]	Completion rate of Horizontal Activities at month [redacted] 78%	11	TELT	Completion rate is determined by the financial progress	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 78%

[redacted]	Completion rate of Horizontal Activities at month [redacted]: 100%	11	TELT	Completion rate is determined by the financial progress	[redacted]		Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 100%

Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D11.1	Completion rate of Task 11.1 at month [redacted] 31%	11	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 31% (PDF - ENG)
D11.2	Completion rate of Task 11.2 at month [redacted] 34%	11	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 34% (PDF - ENG)
D11.3	Completion rate of Task 11.3 at month [redacted] 43% corresponding to the resolution of 38% of the interferences in Italy and 100% in France	11	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 43% and the resolution of 38% of the interferences in Italy and 100% in France (PDF - ENG)
D11.4	Completion rate of Task 11.1 at month [redacted]: 100%	11	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 100% (PDF - ENG)
D11.5	Completion rate of Task 11.2 at month [redacted] 100%	11	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 100% (PDF - ENG
D11.6	Completion rate of Task 11.3 at month [redacted] 100%	11	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 100% (PDF - ENG

Work Package 12

Work Package 12: Project Management and Administrative activities

Duration:	[redacted]	Lead Beneficiary:	TELT

Objectives

This Work Package includes all the activities related to Project Management and Administrative activities. This Work Package covers all the costs for Human resources, rental of TELT main offices in Torino and Le Bourget du Lac, vehicles, furniture, office supplies, IT systems, consultancy and regulatory controls, communication including the management of Modane information point.
One Task is envisaged for this Work Package: Task 12.1 Project Management and Administrative activities
TELT will carefully respect the rules foreseen by European regulation about the Double Financing (Regulation EU 2021/1153, Art. 19).

	Future Grant Agreement			
Technical progress	[redacted]	[redacted]	[redacted]	[redacted]
Task 12.1 - PM and Administrative activities	28%	52%	76%	100%
WP12	**28%**	**52%**	**76%**	**100%**

Activities (WP description)

Task No (continuous numbering linked to WP)	Task Name	Description	Participants		Subcontracting (Yes/No and Percentage of the task that will be subcontracted)
			Name	Role (COO, BEN, AE, AP, OTHER)	
T12.1	Project Management and Administrative activities	The Task includes all the project management activities, including the coordination activities with Associated Partners, namely the French Ministry and the Italian Ministry for Infrastructure and Transport (MIT), necessary for the implementation of the project in line with the Grant agreement. The task will ensure the coherence of the implementation of the project as per the Grant Agreement with the TELT annual works plan. The main activities planned will be: - Administrative coordination of the project's activities and of the project management team; - Monitoring of the project implementation as defined in the Grant Agreement; - Preparation and submission of periodic reports; - Preparation and submission of financial statements and audit certificates; - Organization of progress meetings between participants;	TELT, MTCES, MIT	COO, BEN AP AP	Yes – 100%

		- Strategic project development, including preparation and documentation of essential project decisions; - Coordination of activities with the Associated Partners (meetings, coordination, project monitoring and evaluation, financial management, progress reports, etc); - Management of the information flows between participants, in particular between the Coordinator TELT SAS and the Associated Partners MTCES and MIT.			

Milestones and deliverables (outputs/outcomes)

Milestone No (continuous numbering not linked to WP)	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
[redacted]	Completion rate of PM and Administrative activities at month [redacted] 28%	12	TELT	Completion rate is determined by the financial progress	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 28%
[redacted]	Completion rate of PM and Administrative activities at month [redacted] 52%	12	TELT	Completion rate is determined by the financial progress	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 52%
[redacted]	Completion rate of PM and Administrative activities at month [redacted] 76%	12	TELT	Completion rate is determined by the financial progress	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 76%
[redacted]	Completion rate of PM and Administrative activities at month [redacted] 100%	12	TELT	Completion rate is determined by the financial progress	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 100%

Deliverable No (continuous numbering linked to WP)	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D12.1	Completion rate of Task 12.1 at month [redacted] 36%	12	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 36% (PDF - ENG)
D12.2	Completion rate of Task 12.1 at month [redacted] 100%	12	TELT	*[R — Document, report]*	*[SEN — Sensitive]*	[redacted]	Certificate issued by the technical director on the basis of the actual financial and technical progress of the works certifying the achievement of the 100% (PDF - ENG)

Estimated budget — Resources *(n/a for prefixed Lump Sum Grants)*
See detailed budget table per WP/calculator (annex 1 to Part B)

See the Detailed Budget Table attached in Annex

6.3 Timetable

Timetable
Fill in the timetable for the project (using either the template available on Portal Reference Documents or a Gantt chart which respects the minimum requirements set out in the template) and attach it to your Application Form (annex X to Part B).

#§WRK-PLA-WP§#

See the Gantt chart attached in Annex

#@ETH-ICS-EI@#

7. OTHER

7.1 Ethics

Ethics
Not applicable.

#§ETH-ICS-EI§# #@SEC-URI-SU@#

7.2 Security

Security
Not applicable.

#§SEC-URI-SU§# #@DEC-LAR-DL@#

8. DECLARATIONS

Higher funding rate (if applicable)	YES/NO
Do you fulfil the conditions set out in the Call document for a higher funding rate? If YES, explain and provide details.	YES
According to Regulation (EU) No 2021/1153 [CEF 2 Regulation] in Article 15 (2) lit a and e: "the co-financing rate applicable to projects carried out by integrated management structures (…) may be increased by 5 %" and also the recently approved Work Programme for 2021-[redacted] quotes as follows " 8. Form of Union contributions and co-financing rates - [..] as regards Actions relating to cross-border links, the above specified maximum co[1]financing rates for works (50%) may further be increased by 5 percentage points for projects carried out by integrated management structures, including joint ventures." Based on the established integrated management structure for the Turin Lyon base tunnel's planning and implementation a higher level of co-financing is justified for the proposed project (i.e. up to 55 per cent, corresponding to 2.902.776.085,90 € of EU contribution)	

Twinned projects (if applicable)	YES/NO
Is the project twinned to another project which is funded under another CEF call and part of the same global project? If YES, give details on the twin-project (name, number, etc). ***Note:*** *Twinned projects will be evaluated together and afterwards managed as linked actions (for the purposes of the Grant Agreement).*	NO
N/A	

Double funding	
Information concerning other EU grants for this project ⚠ *Please note that there is a strict prohibition of double funding from the EU budget (except under EU Synergies actions).*	YES/NO

We confirm that to our best knowledge neither the project as a whole nor any parts of it have benefitted from any other EU grant *(including EU funding managed by authorities in EU Member States or other funding bodies, e.g. EU Regional Funds, EU Agricultural Funds, etc)*. If NO, explain and provide details.	YES, we confirm that no double funding is expected for this project
We confirm that to our best knowledge neither the project as a whole nor any parts of it are (nor will be) submitted for any other EU grant *(including EU funding managed by authorities in EU Member States or other funding bodies, e.g. EU Regional Funds, EU Agricultural Funds, etc)*. If NO, explain and provide details.	YES, we confirm

Financial support to third parties (if applicable) *If your project requires a higher maximum amount per third party than the threshold amount set in the Call document, justify and explain why this is necessary in order to fulfil your project's objectives.*
N/A

#§DEC-LAR-DL§#

ANNEXES

LIST OF ANNEXES

Standard

Detailed budget table per WP/Calculator
Annual activity reports
List of previous projects (annex 4 to Part B

Special

Timetable/Gantt chart (annex 5 to Part B)
Other annexes (annex 6 to Part B)*:*

- *1996 France - Italy Treaty*
- *2001 Italy-France Treaty*
- *2012 Italy-France Treaty*
- *2015 Italy-France Treaty*
- *2016 Italy-France Treaty Additional Protocol*
- *TELT Statute*
- *Deliberations n. 57 of 3rd August 2011*
- *Deliberation n. 19 of 20th February 2015*
- *Deliberations n. 30 of 21st March 2018*
- *Deliberations n. 39 of 26th April 2018*
- *PUT - Determina MiTE n.248 2022*
- *PUT - CTVIA Parere n.538 2022*
- *Determina n.1004 TELT Proroga Pubblica utilità 2022*
- *Décret d'Utilité Publique (DUP) of 18/12/2007*
- *Arrêté Prefectoral of 12/02/2007*
- *Arrêté Prefectoral of 04/03/2011*
- *Déclaration d'Utilité Publique (DUP) of 30/03/2011*
- *Arrêté Prefectoral of 16/08/2016*
- *Déclaration d'Utilité Publique (DUP) of 06/12/2017*
- *Authorisations, approvals and permits*
- *Support letters*
- *S-Curves*
- *Chemin the Fer*
- *Climate proofing*

LIST OF PREVIOUS PROJECTS

List of previous projects

Please provide a list of your previous projects for the last 4 years.

Participant	Project Reference No and Title, Funding programme	Period (start and end date)	Role (COO, BEN, AE, OTHER)	Amount (EUR)	Website (if any)
TELT	2014-EU-TM-0401-M "Cross Border Section of the New Lyon-Turin Rail Link Mont Cenis Base Tunnel (TBM)",	01/01/2014 - 31/12/2023	BEN	1,915,054,750 Eur (813,781,900 cofunding from Connecting Europe Facility)	https://ec.europa.eu/inea/en/connecting-europe-facility/cef-transport/2014-eu-tm-0401-m
TELT	22-EU-TG-RE-AVIBUS-TELT-2 "Upgrading of the rail historic line Bussoleno – Avigliana"	1/1/2023-31/12[redacted]	BEN COO	89,000,000 € (44,500,000 € cofunding from Connecting Europe Facility)	Not available

HISTORY OF CHANGES		
VERSION	PUBLICATION DATE	CHANGE
1.0	01.09.2021	Initial version (new MFF).
2.0	01.06.2022	Consolidation, formatting and layout changes. Tags added.