



Innovation and Networks Executive Agency

Department C - Connecting Europe Facility (CEF)

**AMENDMENT N° 1
TO AGREEMENT No INEA/CEF/TRAN/M2014/1057372**

The **Innovation and Networks Executive Agency (INEA)** ("the Agency"), under the powers delegated by the European Commission ("the Commission"), represented for the purposes of signature of this amendment by the Head of Department C of the Agency, Andreas Boschen,

on the one part,

and

1. Ministero delle Infrastrutture e dei Trasporti (MIT)

Via Nomentana 2

00161 Roma

Italy

hereinafter referred to as "the coordinator", represented for the purposes of signature of this amendment by Direttore generale - Direzione sviluppo del territorio, programmazione e progetti internazionali, [REDACTED]

and the following other beneficiaries:

2. Ministère de la Transition écologique et solidaire (MTES) - established in France

duly represented by the coordinator by virtue of the mandate included in Annex IV of the above-mentioned grant agreement for the signature of this amendment,

hereinafter referred to collectively as "the beneficiaries", and individually as "beneficiary" for the purposes of this amendment where a provision applies without distinction between the coordinator or another beneficiary,

on the other part,

Having regard to the above-mentioned grant agreement concluded between the Agency and the coordinator on 01/12/2015,

Whereas:

- (1) The coordinator has requested the Agency on 02/10/2019 to amend the above-mentioned grant agreement for the following reason(s): Extend the end date of Action by 36 months to complete activities which were delayed due to multiple issues

affecting the Action during its implementation; 2. Modify the technical scope of the Action (in particular of Activity 18) to reflect the “variante” (change of location of the construction site set-ups in accordance with CIPE provision No.235 - Resolution 19/2015).

- (2) The measures provided for in this amendment do not affect the award of the Union financial aid.

HAVE AGREED AS FOLLOWS:

Article 1

- (1) The details of the beneficiary MEDDE shall read as follows:

Ministère de la Transition écologique et solidaire/ MTES (MEDDE)
Tour Sequoia Place Carpeaux 1
92055 La Défense
France

- (2) Article 2.2 is replaced by the following article:

"2.2 The action shall run from 01/01/2014 (“the starting date”) until 31/12/2022 (“the completion date”)."

- (3) Article 3 "Maximum amount and form of the grant" is replaced by the following article:

"ARTICLE 3 – MAXIMUM AMOUNT AND FORM OF THE GRANT

The grant for the action shall be of a **maximum amount of EUR 813,781,900.**

The grant shall take the form of:

- (a) the reimbursement of the eligible costs of the action ("reimbursement of eligible costs"), which are estimated at EUR 1,915,054,750, according to the following conditions:
- (a1) Reimbursement of 40% of the eligible costs for the direct costs of the following activities: Activity 6, Activity 7, Activity 8, Activity 9, Activity 10, Activity 11, Activity 12, Activity 13, Activity 14, Activity 15, Activity 16, Activity 17, Activity 18, Activity 19, Activity 20, Activity 21, Activity 22, Activity 23, Activity 24, Activity 25, Activity 26, Activity 27, Activity 28, Activity 29, Activity 30, Activity 31, Activity 32, Activity 33, which are
- (i) actually incurred (“reimbursement of actual costs”)
 - (ii) reimbursement of unit costs: not applicable
 - (iii) reimbursement of lump sum costs: not applicable
 - (iv) reimbursement of flat-rate costs: not applicable
 - (v) declared on the basis of an amount per unit calculated in accordance with the beneficiary’s usual cost accounting practices (“reimbursement of costs declared on the basis of the beneficiary's usual cost accounting practices”) for

personnel costs

- (a2) Reimbursement of 50% of the eligible costs for the direct costs of the following activities: Activity 1, Activity 2, Activity 3, Activity 4, Activity 5, which are
- (i) actually incurred ("reimbursement of actual costs")
 - (ii) reimbursement of unit costs: not applicable
 - (iii) reimbursement of lump sum costs: not applicable
 - (iv) reimbursement of flat-rate costs: not applicable
 - (v) declared on the basis of an amount per unit calculated in accordance with the beneficiary's usual cost accounting practices ("reimbursement of costs declared on the basis of the beneficiary's usual cost accounting practices") for personnel costs
- (b) unit contribution: not applicable
- (c) lump sum contribution: not applicable
- (d) flat-rate contribution: not applicable"
- (4) Article 4.1.1 "Reporting periods" is replaced by the following article:

"4.1.1 Reporting periods

The action is divided into the following reporting periods:

- Reporting period 1 from the starting date of the action to 31 December 2014;
- Reporting period 2 from 1 January 2015 to 31 December 2015;
- Reporting period 3 from 1 January 2016 to 31 December 2016;
- Reporting period 4 from 1 January 2017 to 31 December 2017;
- Reporting period 5 from 1 January 2018 to 31 December 2018;
- Reporting period 6 from 1 January 2019 to 31 December 2019;
- Reporting period 7 from 1 January 2020 to 31 December 2020;
- Reporting period 8 from 1 January 2021 to 31 December 2021;
- Last reporting period from 1 January 2022 to the completion date of the action."

(5) Annex I shall read as follows:

"ANNEX I DESCRIPTION OF THE ACTION

ARTICLE I.1 – IMPLEMENTATION OF THE TEN-T NETWORK

The action contributes to the implementation of the:

- the core network
 - Corridor(s): Mediterranean
 - Pre-identified section(s) on the core network corridor(s):
 - Lyon - Torino

ARTICLE I.2 – LOCATION OF THE ACTION

I.2.1 Member State(s): France, Italy.

I.2.2 Region(s) (using the NUTS2 nomenclature): Rhône-Alpes (FR71), Piemonte (ITC1).

I.2.3 Third country(ies): not applicable.

ARTICLE I.3 – SCOPE AND OBJECTIVES OF THE ACTION

The main goal of New Lyon-Turin Rail Link (NLTL) for creating a new rail infrastructure with optimal safety, technological and operational characteristics is to ensure a major axis along the Mediterranean corridor for both passenger and freight traffic.

Among the most important Trans European Transport Network infrastructure projects, the NLTL is indeed the only East-West or West-East passage through the Alps. Once completed, it will improve connection between France and Northern Italy, and link the Iberian Peninsula, North West Italy and South-East of Europe.

The overall objectives of the Action are to:

- Remove a bottleneck along a cross border section. The NLTL will offer a flat route, eliminating the current slopes of around 30 ‰ for freight trains crossing the Alps;
- Fill a missing link along transalpine and European traffic;
- Contribute to EU sustainable development objectives of reducing the levels of greenhouse gases by 20% by 2020 (based on 1990 levels), improving energy efficiency by 20% and reaching 20% of renewable energy in overall energy consumption by 2020. The base tunnel and its access lines will also allow to save the equivalent 3 million tons of equivalent CO₂, reduce traffic congestion and any other risks on the intra-alpine and transalpine transport;
- 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 the provision of vertical drop and route conditions similar to flat land railways (eliminating booster locomotives for heavy freight trains);
- Shift from road to rail the crossing of the Alps via the Mediterranean Corridor;

- Create a more favorable environment for private, public or private-public partnership investments.

As indicated in the 2012 binational French-Italian Treaty, NLTL is made of a:

- French section, from Saint-Didier-de-la-Tour to Montmélian (France);
- French-Italian common part, from Montmélian to Chiusa San Michele (Italy);
- Italian section, from Chiusa San Michele to Turin hub.

The Action is located along the cross border section (between Saint-Jean-de-Maurienne and Susa/Bussoleno) of the French-Italian common part. 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), Susa valley crossing, interconnection tunnel (approx. 2 km) and the entry into the existing Bussoleno railway station.

The existing line from Maurienne to Susa valley can transport rail traffic, but it is a mountain line, thus severely limiting wide gauge heavy freight, rolling motorway and high speed passenger trains. As a result, the majority of trade is transported by road. From 2002 to 2012, 68% of trade in the Ventimiglia – Tarvisio arch was carried out by road and only 32% by rail. Few roads cross the Alps, thus concentrating heavy vehicles traffic in a few valleys, creating heavy traffic jams during rush hour periods.

The cross border section will have a plain profile with three sections- Saint-Jean-de-Maurienne, Susa plain and Bussoleno – at open air. This is the best technical option to allow minimum inclination compatible with both high speed and mixed rail traffic and shortest alignments with reduced operating costs and travelling times. With the French and Italian section, it is expected to shift of one million heavy goods vehicles per year from road to rail between France and Italy thus considerably reducing environmental nuisances.

The scope of the Action includes studies and civil works. Ongoing studies and geological investigations will be completed, paving the way for preparatory works and the start of main civil works, which will then continue until their completion. Therefore, the Action is an intermediate phase of an overall infrastructure investment in this region.



ARTICLE I.4 – ACTIVITIES

I.4.1 Activities timetable

Activity number	Activity title	Indicative start date	Indicative end date	Milestone number
1	TELT Administrative costs for studies			
2	Monitoring and follow-up of the descending shafts			
3	La Maddalena exploratory activities			
4	Exploratory activities from the foot of the Saint-Martin-la-Porte access tunnels			
5	Final modifications of the reference design			
6	TELT Administrative costs for works			
7	Release of the land acquired for public purposes and demolitions			
8	Utilities diversions in France			
9	Utilities diversions in Italy			
10	Chiomonte Interchange			
11	Relocation of A32 Autoport			
12	Relocation of CONSEPI « safe driving » track			
13	Interconnection tunnel Susa-Bussoleno			
14	Electric connection Susa-Venaus			
15	Avrieux shafts			
16	Villard Clément cut and cover			
17	Electric connection for French worksites			
18	Main civil works until 31/12/2018			

19 Civil works in Susa plain (o. w.2A)

20 Info point Henry Barrack (o.w. 2E)

21 Maddalena-Susa (o.w. 3-4)

22 Maddalena interconnecting Niches (o.w. 4A)

23 Modane and Maddalena (o.w.5)

24 La Praz-Modane (o.w. 6)

25 St Martin la Porte-La Praz (o.w.7)

26 St Julien Montdenis (West entrance)-Saint Martin la Porte (o.w. 8)

27 St Jean de Maurienne (SNCF-R) (o.w. 9B)

28	St Jean de Maurienne (TELT) (o.w. 9C)
29	Trimet and Villargondran dams (o.w. 9D)
30	Arc Bridge (o.w. 9E)
31	Management of excavated materials-Italy (o.w. 10)
32	Management of excavated materials-France – (o.w.11)
33	Engineering and other costs not included in other OW

I.4.2 Activities description

Activity 1: TELT Administrative costs for studies

In 2002 LTF-SAS (now TELT) was set up to implement the studies, exploratory and geological investigation activities and preliminary works in compliance with article 5 & 6 of the 2001 Franco-Italian Treaty. TELT will manage the contracts signed for studies, exploratory and geological investigation activities. This activity covered administrative costs for studies activities as follows:

- 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;
- Specific studies to prepare future works and to successfully complete them;

- Preparation of the tender dossier for preparatory (activities 13-16) and main works;
- Study realized by TELT, public utility owners or infrastructure managers to prepare agreements for works covered by activities 10,11,12 and 17;
- Specific environmental procedures for each part of the foreseen worksites which could not be done before the beginning of works: vegetation clearing, preventive archeology, compensatory measures for wildlife, flora or human activities;
- Deepening of financial engineering and contractual studies.

The relative costs incurred before 31/12/2015 were supported by the TEN-T program, while those incurred on 01/01/2016-31/12/2017 are supported by CEF.

This activity was completed at 31/12/2017.

Activity 2: Monitoring and follow-up of the descending shafts

Activity 2 concerns the maintenance (monitoring and follow-up) of: i) Villarodin-Bourget/Modane descending shafts until they are handed over () to the contractors of civil works at the base tunnel; and ii) Maddalena exploratory tunnel, once this latter is completed (end of Activity 3).

During the phase of works at the base tunnel, these descending shafts (together with la Praz, the other shaft already completed) will serve as access to the underground worksites. Once works are completed, these descending shafts will be used as safety and maintenance access.

This activity covers any contract (services, supplies and works) required for:

- surveillance;
- maintenance work on the equipment;
- monitoring any possible changes in the structure

Activity 3: La Maddalena exploratory activities

The 7.5 km La Maddalena exploratory tunnel of 6,30 m diameter was made up of a descending section leading to the axis of the base tunnel alignment, then a section parallel to the alignment of the base tunnel.

The purpose of the exploratory activities is to identify the geological, hydrogeological and geo-mechanic characteristics of the cross border section of the Ambin rock massif, where the future excavation of the base tunnel will cross the highest overburden. In large civil construction projects, it is essential to gather information about rock properties before the full excavations begin.

The exploratory activities identified the geological, hydrogeological and geo-mechanic characteristics of the cross border section of the Ambin rock massif, where the future excavation of the base tunnel will cross the highest overburden. In large civil construction projects, it is essential to gather information about rock properties before the full excavations begin and retrieved geological data allowed:

- evaluating the technical feasibility of future works;

- planning appropriate technical solutions for a timely and cost-effective implementing plan of future works;
- preparing tender of the future works (define terms of reference and decide the most appropriate financial package) at base tunnel Maddalena-Susa (activity 22, operational worksites 3-4).

At the end of 2015, around 4 km of tunnel were completed under 2007-EU-06010-P Action, co-funded under TEN-T program.

From 01/01/2016 until 21/07/2017, this activity covered the completion of the geological investigations. Investigations included test drilling cores, seismic studies, and outcrop investigations to explore rock types, structure, and physical properties and any geological investigation to understand how the Ambin mountain massif reacts while tunnel boring machines (TBM) perform.

As from 21/07/2017, the activity also included operations to clear the worksite and contracts on project management, safety coordination, environmental monitoring, disposal of the excavated material (not included in activity 32), monitoring of the structure until the achievement of the construction.

The activity was completed at 31/12/2019.

Activity 4: Exploratory activities from the foot of the Saint-Martin-la-Porte access tunnels

This activity covers the exploratory and geological investigations activities at the second branch of the existing access tunnel and more than 10 km exploratory tunnel (south tube).

The worksite of this Activity has been divided into 5 sections: 1, 2, 3A, 3B and 4.

Until 30/09/2019, this activity covered:

- Section 3 A: crossing the Houiller section with a small diameter at first and later enlarging to reach the same diameter as the base tunnel. This section is completed;
- Sections 1 and 4: setting up several caverns at the foot of the existing Saint-Martin-La-Porte and La Praz access tunnels for logistic purposes to mount and dismantle the TBM. These sections are completed;
- Section 2: exploratory and geological investigations activities with a hard rock TBM with segmental lining for the 9 km long section between the feet of these two access tunnels. This section is completed.

Excavations investigated the geological, hydrogeological and geo-mechanic characteristics of the section in the Houiller rock massif, where the excavation of the base tunnel will cross the weakest ground conditions. In large civil construction projects, it is essential to gather information about rock properties before the full excavations begin and retrieved geological data allowed:

- evaluate the technical feasibility of future works;
- plan appropriate technical solutions for a timely and cost-effective implementing plan of future works;

- prepare tender of the future works (define technical specification of the tender dossier and decide the most appropriate financial package) at base tunnel Saint Martin la Porte (activity 26, operational worksite 7).

The activity also covered all the complementary activities such as the disposal of material which cannot be reused or the temporary stocking of other types of material, as well as related contracts (project management, safety coordination, environmental monitoring, insurance...).

As from 30/09/2019, this activity covers engineering and excavation costs for the section 3B. This 1.4 km second branch of the Saint-Martin-La-Porte access tunnel towards the west, surrounds the most critical section (Houiller rock massif) between the base of the current access tunnel and the one completed in September 2019.

This section will have a small diameter at first and later enlarging to reach the same diameter as the base tunnel. This second branch and the exploratory tunnel will verify the existence of plurimetric carboniferous levels, evaluate soil behaviour when excavated under real overburden, assess the fractures containing water and soil behaviour eastbound from Brequin-Orelle geological unit. They will also test and adapt excavation method.

At the end of the Action, the second branch of the access tunnel and the exploratory tunnel will be completed, and the following objectives will be reached:

- check the existence of plurimetric carboniferous levels
- evaluate soil behaviour when excavated under real overburden
- experiment and if necessary adapt excavation method
- characterize the fractures containing water
- investigate the soil behaviour eastbound from Brequin-Orelle geological unit by crossing this geological area in full section.

Cost incurred before 31/12/2015 were co-funded by TEN-T 2007-EU-06010-P Action and those incurred from 01/01/2016 are co-funded by the CEF program.

Activity 5: Final modifications of the reference design

The activity covers the revision of final design studies in Italy (Progetto Definitivo) and of the Reference design studies in France (Projet de référence), as required by the national administrative approval procedures. It also covers the development of several recommendations issued by the first phase of the cost certification (done by an external third party in June 2015).

In 2018, the final design studies on open air works alignment in Italy (variante) were modified and the main excavation site of the Base Tunnel in Italy was moved from Susa to Chiomonte. In France, the reference design (Projet de référence) in France were complemented by studies done by SNCF Réseau.

Both studies were included in the tender dossiers for future works.

Costs incurred before the 31/12/2015 were co-funded by TEN-T 2007-EU-06010-P Action and those incurred after the 01/01/2016 are co-funded by the CEF program.

The activity was completed at 31/12/2019.

Activity 6: TELT Administrative costs for works

In order to successfully complete works activities TELT will support project management costs such as:

- project management (maîtrise d'ouvrage) to coordinate management of different parts of the project and monitor compatibility between civil engineering and the equipment;
- updating the traffic forecasts, the economic studies and the financial studies to specify the type of contract needed for building the equipment;
- actions linked to rail safety leading to an authorization for operation;
- insurance for buildings, vehicles, Directors and officers liability insurance
- the administrative work of TELT for the preparation of tenders for civil works at base tunnel (the preparation of tender documents by the contractors is included in the scope of the respective activities);
- Human resources, rental of TELT main offices in Torino and Le Bourget du Lac, vehicles, furniture, office supplies, IT systems, consultancy, regulatory controls performed in TELT headquarters of Torino and Le Bourget du Lac, communication including the management of Modane information point;
- for activities 10 (Chiomonte Interchange, o.w. 4C) and 11 (New Autoport o.w. 2C) tasks for monitoring the technical implementation and their spending profile, as indicated in the agreements signed with Sitaf;
- for activity 12 (New “Safe driving” track, o.w. 2D) tasks for monitoring the technical implementation and their spending profile, as indicated in the agreements signed with Consepi.

Activity 7: Release of the land acquired for public purposes and demolitions

This activity isn't related to the purchase of land (not eligible under CEF) but the operations required to prepare the land for the worksites: temporary occupation, servitudes, demolishing buildings, fencing off activities to secure the sites before the start of works, depolluting, demining, etc. It covers all the work contracts and/or agreements with public utilities' owners.

By the end of the Action, the following objectives will be reached:

- In France, approximately 45 buildings in the Saint Jean de Maurienne basin (Saint Jean de Maurienne, Villargondran, Saint Julien Mondenis) will be demolished (50% by the end of 2019). Demolitions in the plain of Saint Jean de Maurienne phases 1-2-3-4 are also included;
- In Italy, areas in sites of Chiomonte, Giaglione (by February 2020), San Didero-Bruzolo, Torrazza Piemonte, and Salbertrand (by February 2020) will be temporarily occupied.

Activity 8: Utilities diversions in France

This activity covers engineering and works costs linked to agreements with public utility owners to deviate those utilities whose alignment is interfering with the open air works (other than canals and roads which are included in Activity 10 to 34): electricity lines, gas pipes, water, drains, telecommunications, optic fiber. These deviations are a precondition to release future work sites and allow to begin the construction activities.

This activity also covers any other contract related to these works. These deviations involve all public and private suppliers relating mainly to dry networks, as follows:

- Electrical supply networks: RTE, ENEDIS, local electricity boards (SOREA);
- Fibre networks: Fibrea/Covage and Orange;
- Phone networks: Orange;
- Gas networks: GRT Gas and GRDF.

The following objectives will be reached by the end of the Action:

1. Agreement owner RTE (in Villarodin Bourget and Modane municipalities): the diversion of electricity line « 63kV Aussois Terres Froides » will allow works of the "Moulin" platform and use the site of "Tierces". The electric airline will be replaced by an underground line on 3,8 km. This deviation is carried out in coordination with the 20kV Enedis deviation Fréjus;
2. Agreement owner RTE (in Villarodin Bourget municipalities) will cover studies for the electric deviation. Completed at 31/12/2016;
3. Agreement owner Enedis (in Villarodin Bourget and Modane municipalities): the diversion of electricity line « 20 kV Fréjus » will works of the "Moulin" platform and use of the site of "Tierces". The electric airline will be replaced by an underground line on 7,3 km;
4. Agreement owner Orange (in Saint Julien Montdenis municipality): The derivation of telephony and optical fiber networks under RD 1006 and A43 are required as a result of construction of the Covered Trench;
5. Agreement owner Enedis (in Saint Julien Montdenis municipality): The deviation of HTA power grids (20KV) along the RD1006 is required to construct the Villard Clément Cut and Cover. Such deviation will be done in coordination with the Villard Clément Cut and Cover.
6. Agreement owner Fibrea / Covage (in Saint Julien Montdenis municipality): the deviation of Optical Fibre Network will allow building the Villard Clément Cut and Cover;
7. Agreement owner GRT Gaz (in Saint Jean de Maurienne municipality): will cover studies for the diversion of the gas transmission network and the studies on the impact of SNCF-R's work for TELT on the gas network;
8. Agreement owner Sorea (in Saint Jean de Maurienne municipality): the relocation of 20 kV electrical supply station will allow works on the new line. Completed at 31/12/2017;
9. Agreement owner Orange (in Saint Jean de Maurienne and Villargondran municipalities): studies for the derivations of telephony networks and optics fibers will allow works in the Saint Jean de Maurienne Basin.
10. Agreement owner Orange (in Saint Jean de Maurienne and Villargondran municipalities): the derivations of telephony networks and optics fibers will allow works in the Saint Jean de Maurienne Basin. Deviations works (Derivation optic fiber - route Amoudon to Villargondran; Derivation SRP - rue Louis Sibué - zone Ouest Arvan - Saint Jean de Maurienne; Derivation networks - zone Ouest Arvan - Saint Jean de Maurienne; Diversion resumption cabling - front of station - rue Bastille - Saint Jean deMaurienne) are carried out according to the planning of the main work.
11. Agreement owner RTE (in Saint Jean de Maurienne municipality): studies on the

deviation of the 42KV Chaudannes Arvan electric line will increase the power of this electric line to cope with works on the new rail line;

12. Agreement owner RTE (in Saint Jean de Maurienne municipality): the deviation of the 42KV Chaudannes Arvan electric line will increase the power of this electric and cope with works on the new rail line;

13. Agreement owner Fibrea / Covage (in Saint Jean de Maurienne municipality): the deviations of optic fiber networks will allow works on the Bastille sector;

14. Agreement owner Fibrea / Covage (in Saint Jean de Maurienne municipality): the deviations of optic fiber networks will allow works on Saint Jean de Maurienne. Deviations works are carried out according to the planning of the main work;

15. Agreement owner Sorea (in Saint Jean de Maurienne municipality): the derivation of HTA (20KV) and low voltage grids in Saint Jean de Maurienne will allow main works. Deviations works (deviation rue de l'Artisan, rue de l'Arc, municipality Saint-Jean Maurienne and Villargondran, rue Libération, rue Louis Sibué, rue de la Bastille, rue René Cassin, land parcel Martinet, RD81, sector old Resses, deviation Bastille post and construction of new Bastille) are carried out according to the planning of the main work ([REDACTED]);

16. Agreement owner RTE (in Saint Jean de Maurienne Saint-Julien-Montdenis and Villargondran municipalities): the deviation by grounding of the 150KV overhead electric line will allow main works;

17. Agreement owner RTE (in Saint Jean de Maurienne Saint-Julien-Montdenis and Villargondran municipalities); the deviation by grounding of the 42KV and 63 KV overhead electric lines which give rise to the main works.

18. Agreement owner RTE (in Saint Jean de Maurienne municipality): studies for the deviation by grounding of the 42KV and 63 KV overhead electric lines which impact main works. Completed at 31/12/2018;

19. Agreement owner RTE (in Villargondran municipality): studies for the deviation Electrical networks by raising 2 pylons. It is necessary to upgrade the too low overhead lines that interfere with the construction work of the Electric Sub-Station on the site of the "plan des Epines";

20. Agreement owner RTE (in Villargondran municipality): the electrical networks will be deviated by raising 2 pylons. It is necessary to upgrade the too low overhead lines that interfere with the construction work of the Electric Sub-Station on the site of the "plan des Epines";

21. Agreement owner RTE (in Villargondran municipality): supply for the deviation Electrical networks by raising 2 pylons. It is necessary to upgrade the too low overhead lines that interfere with the construction work of the Electric Sub-Station on the site of the "plan des Epines";

22. Agreement owner RTE (in Saint Julien Montdenis municipality): studies for the deviation of the power line in the ILLAZ sector, to allow Illaz railway branch line;

23. Agreement owner RTE (in Saint Julien Montdenis municipality): the derivation of the RTE 42KV power line by air or underground to create branch line to the Illaz sector for the loading of materials.

Due to the high number of interferences with existing networks, the complex phase-out at the same time as the progress of the main works and the modest reference amount, general milestones are indicated for this activity for each year of implementation. A detailed progress report on the resolution of interferences will be provided at the end of each year as a means of verification.

Activity 9: Utilities diversions in Italy

This activity covers engineering and works costs linked to agreements with public utility owners to deviate those utilities whose alignment is interfering with the open air works (other than canals and roads which are included in Activity 10 to 34): electricity lines, gas pipes, water, drains, telecommunications and optic fibres. These deviations are a precondition to release the future working sites and allow the start of the construction activities. This activity also covers any other contract related to these works.

The following objectives will be reached by the end of the Action:

1. Agreement owner Enel Distribuzione (in Torrazza Piemonte, San Didero, Bruzolo municipalities): the power lines in San Didero and Bruzolo will be deviated to allow building roundabout of access to the New Autoport. In Torrazza the connection from the railway to the deposit will be also done;
2. Agreement owner 2i Rete Gas (in Torrazza Piemonte municipality): the medium pressure gas pipeline will be deviated to allow the beginning of the deposit;
3. Agreement owner Iren Energia (Chiomonte municipality): the deviation of the section of the interfering aerial cable 50 Kv Power line Chiomonte-Susa will allow to extend the worksite for the Base Tunnel;
4. Agreement owner Smat (Torrazza Piemonte, San Didero and Bruzolo municipalities): the deviation of water mains in San Didero and Bruzolo will allow the construction of roundabout of access to the New Autoporto. For the deviation of Torrazza the deviation will connect the railway to the deposit;
5. Agreement owner Telecom (in Torrazza Piemonte San Didero, Bruzolo and Salbertrand municipalities): the deviation of telephone lines and fiber optic cables in San Didero and Bruzolo will allow the construction of roundabout of access to the New Autoporto. The deviation in Torrazza will allow the connection from the railway to the deposit. In Salbertrand the deviation is necessary to prepare works site logistics;
6. Agreement owner Aem Comune di Chiomonte (Chiomonte municipality): the deviation of an electrical line will allow preparing works site logistics;
7. Agreement owner Aem Comune di Salbertrand (Salbertrand municipality): the deviation of underground power lines will allow preparing works site logistics;
8. Agreement owner Acea Pinerolese (Salbertrand municipality): the deviation of water mains and sewerages will allow preparing works site logistics;
9. Agreement owner Italgas (San Didero and Bruzolo municipalities): the deviation of gas pipeline will allow the construction of roundabout of access to the New Autoporto;
10. Agreement owner Terna Hvdc (San Didero and Bruzolo municipalities): the deviation of an HVDC power line will allow starting the construction of the New Autoporto.

This activity covers not only the main agreements with public utility owners but also any other contract related to these works. For each utility, the activity covers:

- The construction of a new network section (on the new roads and tracks or out of the working sites areas) to supply and maintain the functionality;
- The removal of any network interfering with the works;
- Engineering supervision;
- Tests related to the deviation works supported by the utility operators.

Due to the high number of interferences with existing networks, the complex phase-out at the same time as the progress of the main works and the modest reference amount, general milestones are indicated for this activity for each year of implementation. A detailed progress report on the resolution of interferences will be provided at the end of each year as mean of verification.

Activity 10: Chiomonte Interchange

This activity, under Sitaf (Società Italiana Traforo Autostradale Frejus) responsibility, covers the construction of the new interchange in Chiomonte which will connect the A32 motorway to the worksite of La Maddalena, where the worksite for the excavation of Clarea ventilation shaft and underground safety area will be located.

This interchange will be used by heavy-goods vehicles to supply material to the worksite and carry the excavation materials to the processing plant in Susa valley without using local roads. Chiomonte interchange will also connect the above indicated worksites from/to Torino. This activity includes:

- detailed design (under Sitaf responsibility), which was completed on 16/07/2018;
- tendering the works contract (under Sitaf responsibility). Works tender was launched on 20/11/2019;
- works for widening Clarea viaduct (track side Torino) and start of works of the Chiomonte interchange (under Sitaf responsibility).

An agreement between TELT and Sitaf (to monitor technical implementation and spending profile of tasks done by Sitaf) will include specific clauses to control the good progress of the works and the respect of the planned costs.

At the end of the Action, works for widening the Clarea viaduct (track side Torino) and the foundations construction of Chiomonte interchange will be completed. This Activity covers the “structural extension” phase and does not include the finishing works (paving the road, testing etc.).

Activity 11: Relocation of A32 Autoport

In Susa valley, the alignment of the new high speed line will interfere with the A32 motorway, operated by the Sitaf Company. The activity covers any contracts of engineering and works linked to the relocation of the Autoporto (A32 truck parking area) and other supporting facilities associated with the A32 motorway. They will be moved to a suitable place. This activity includes:

- detailed design (under Sitaf responsibility) which was completed on 28/11/2018;
- tendering the works contract (under Sitaf responsibility). Works tender was launched on 29/01/2020;
- start of works for the new Autoport and construction of Sitaf operation control building (under Sitaf responsibility).

An agreement between TELT and Sitaf (to monitor technical implementation and spending profile of tasks done by Sitaf) will include specific clauses to control the good progress of the

works and the respect of the planned costs.

At the end of the Action, Sitaf operation control building will be completed. This Activity stops at the “structural extension” phase. The Activities does not included the finishing works (paving the road, testing etc.).

Activity 12: Relocation of CONSEPI « safe driving » track

In Susa valley, the alignment of the new high speed line will interfere with the driving training centre operated by Consepi Company, which will be relocated into a more suitable place. The Italian government asked to relocate this cars safety track to Buttigliera. Consepi completed the Project Design (Progetto Definitivo) in May 2019.

The Consepi Company will manage all contracts. An agreement between between TELT and Consepi (to monitor technical implementation and spending profile of tasks done by Consepi) will include specific clauses to control the good progress of the contracts and the respect of the planned costs.

This activity covers the detailed design studies (under Consepi responsibility). At the end of the Action, the detailed studies on relocating Consepi cars safety track to Buttigliera will be completed. Works are outside the scope of the Action.

Activity 13: Interconnection tunnel Susa-Bussoleno

This activity aims at preparing the construction of the 2 km Susa-Bussoleno interconnection tunnel, along which a part of the material excavated from the base tunnel will be hauled to disposal sites. For environmental reasons, a large part of the material excavated from the base tunnel will be reused to construct the base tunnel itself, while the remaining part will be carried to disposal sites by train.

The Activity aims also at preparing the connection with the historical railway line, construction of two bridges over Dora Riparia river (about 75 m length), a box shaped underpass on state road SS24, and the demolition of three interfering buildings.

This activity includes the preparation of tenders for works supervision, construction management, civil works, including complementary fencing off activities for the site during the works. The final objective of this activity is the sending of the proposal of contract award to the Contracts Commission.

At the end of the Action, the proposed civil works contract award will be sent to the Contract Commission. Works are outside the scope of the Action.

Activity 14: Electric connection Susa-Venaus

An electric connection must be set up between Venaus and Susa to supply the worksites with the appropriate level of power to allow the tunnel boring machine operating from Susa and the structure entering into operation. Works will include electric substations, cables

connections, interface with the national electric network in Chiomonte. After the completion of the construction works at the base tunnel, this new electric line will be used to supply energy for operating equipment.

This Activity includes one agreement with AEM Chiomonte company to provide the necessary power to Chiomonte worksite, particularly for the use of TBM (tunnel boring machines) and the final electrical supply for the historical railway and the local electrical network as required by CIPE. Works are related to the construction of electric substations, cables connections, interface with the national electric network in Chiomonte.

AEM Chiomonte company (local public supplier) will be responsible for:

- Detail design and approval procedures;
- Diversion of Terna 132 kV cables;
- Realisation of electrical substation 132/15 kV;
- Realisation of cable connection to RFI (Chiomonte)

At the end of the Action, works for electrical power supply for Chiomonte will be completed.

Activity 15: Avrieux shafts

The ventilation scheme of the base tunnel includes a double flow plant in Villarodin-Bourget/Modane. This activity covers the realisation of four vertical shafts (length 500 m each one) that will allow air supply. These shafts will also be used during the construction stage of the underground Modane safety area and the base tunnel from the Modane/Villarodin-Bourget access tunnel.

This activity covers the first part (BC1) of an operational worksite that is divided in three parts:

- BC1: four 500 m-high vertical shafts of an internal diameter of 6.0 m will allow air entering into the base tunnel. These shafts will also be used during the construction stage of the Modane underground safety area and base tunnel from the Modane/Villarodin-Bourget access tunnel (as several excavation fronts will be active simultaneously, ventilation requirements will be relevant);
- BC2: two main tubes (approximately 750m each) will be constructed as safety area;
- BC3: construction with traditional methods of double tubes towards La Praz.

This activity includes BC01 works' contracts and all contracts necessary to implementation of their technical scope (works supervision and construction management, complementary fencing off activities for the sites during the works, etc.), as follows:

1. Detailed and execution studies to be completed and approved;
2. Completion of ongoing works tender with the signature of the works' contract;
3. Verification of site and equipment conditions to be delivered to main works contractor;
4. construction of the four ventilation shafts and other miscellaneous works (putting layers of different material covering the inside surface of the shafts);
5. works supervision and construction management, complementary fencing off activities for the sites during the works etc).

The start of preliminary works with the preparation of the construction site is planned [REDACTED]. These preliminary works include:

- external work at the site installations (protection of cliffs and embankments, earthwork, burial of platform networks);
- site installations on the Avrieux platform (access path, block protection nets, earthwork, supporting walls, acoustic hangar, installations);
- site installations on the Tierces, Moulins site;
- ventilation, cooling and drainage installations required for the works;
- upgrade work on the drift;
- provision of refuge chambers required at the start of the works;
- excavation works at the cavern at the shaft base, the ventilation shaft, connecting gallery and other activities depending on the company's works programme.

The start of the excavation works of excavation shafts (P1) is planned [REDACTED]

The following BC1 works will be completed by the end of the Action:

- Construction of the four ventilation shafts and layers of different material covering the inside surface of three shafts;
- Tunnel boring machine assembly cavern;
- Logistic cavern;
- Connecting tunnel between technical and logistic cavern.

Activities linked to the building security area (also those included into the BC1) and works for BC2 and BC3 (included PMC activities) are outside the scope of the Action.

Activity 16: Villard Clément cut and cover

At the west entrance of the base tunnel in Villard-Clément, just after crossing the Arc River with a new bridge, the new high speed line will interfere with the A43 motorway and RD1006 road.

This activity covers the construction of a cut and cover section (4 box shaped underpass), under the A43 motorway and RD1006 road, which will require the temporary shift of both A43 motorway and RD1006 road. This cut and cover will allow the traffic along the motorway and national road during the construction phase and once the new high speed line will enter into service.

This activity includes engineering and civil works' contracts (shift of the highways, civil and protection works) and all contracts necessary to implementation of their technical scope (works supervision and construction management, complementary fencing off activities for the sites during the works, etc.).

Works started in February 2019, the activity will be completed at the end of the Action.

Activity 17: Electric connection for French worksites

This activity covers agreements with French national or local electric power suppliers (RTE,

ERDF...) to provide the necessary power to the Villarodin-Bourget/Modane, La Praz and Saint-Jean-de-Maurienne worksites, particularly for the use of tunnel boring machines. Agreements will provide for engineering and works for the construction of electric substations and cables connections with the national electric networks.

This activity covers not only the main agreements with French electric power suppliers, but also any other contract related to these works.

At the end of the Action, the following agreements will be completed:

1. Agreement owner Régie Villarodin-Bourget (in Villarodin-Bourget municipality): creating the electrical transformer station 63/20 KV for the electrical supply of the site in a first stage, then the auxiliaries High Voltage and for the power supply electric traction of the base tunnel in the operating phase in a second stage;
2. Agreement owner Régie Villarodin-Bourget (in Villarodin-Bourget municipality): building a temporary electrical connection for the construction of the Avrieux shafts, on the site "le Moulin (completed at 31/12/2018);
3. Agreement owner Régie d'Avrieux (in Avrieux municipality): bringing Electrical power supply for the Avrieux shaft construction site;
4. Agreement owner Enedis (Saint-André (La Praz municipality): bringing electric power supply for the La Praz construction site;
5. Agreement owner Sorea (Saint Julien Montdenis municipality): connecting the electrical power supply of the Villard-Clément construction site for excavation of the base tunnel entrance in the traditional method: supply of 5.8 MW;
6. Agreement owner Rte (Saint Jean de Maurienne and Villargondran municipalities) : power supply to the electrical substation for: 1. Electric power supply for the 1500 V Railway Traction; and 2. Electrical power supply for base tunnel auxiliaries (Lighting and tunnel ventilation);
7. Agreement owner Sorea (Saint Julien Montdenis municipality): Electrical distribution network connection for electrical power supply to the construction site of the covered trench in Villard Clément, and for the power supply electric traction of the base tunnel in the operating phase in a second.

Activity 18: Main civil works until 31/12/2018

This activity covers the civil and environmental engineering works for the base tunnel until 31/12/2018. It includes the implementation of all contracts necessary for works supervision and construction management, complementary fencing off activities for the sites during the works, etc. The administrative costs incurred by TELT for tenders are included in activity 6.

At 31/12/2018 the following objectives have been achieved:

- award in April 2018 of the contract for project management ("Maître d'oeuvre") of civil works at the Base Tunnel in French side ;
- completion of the PRO phase (project studies) for all civil works;
- completion of the technical specifications (DCE, Dossier de Consultation des Entreprises) of civil works tender;
- drafting by the "Maître d'oeuvre" and the Security Coordinator of the tender dossier of works at Niches for interchange of La Maddalena (anticipatory works of the Base tunnel in the Italian side),

- start of the preparatory works for security fences, lighting, video surveillance, support for law enforcement and maintenance of the outdoor systems and in underground in la Maddalena area;
- Signature of an Operational Partnership Agreement between TELT and SNCF Réseau. The agreement transfers project ownership from TELT to SNCF Réseau for work on the cross-border section of the line, interfacing with the National Rail Network (in the basin of Saint Jean de Maurienne). It also defines roles and responsibilities of each party, the scope of SNCF Réseau intervention, the budget and operational planning of batches 9B (civil engineering in Saint Jean de Maurienne), 12B (outfitting of the existing line in Saint Jean de Maurienne), 12Y (Saint Avre) and 12Z (Hermillon).

During this period, the services delivered by SNCF Réseau on these batches were financed through the following five financing agreements:

- Agreement no.1: feasibility study from the relocation of facilities necessary for freight traffic in Maurienne (completed in 2016);
- Agreement no.2: studies supplementing the Final Revision of the Reference Project and the PRO level studies for the first phase of work (completed in 2017);
- Agreement no.3: real estate acquisitions required at Saint Avre and Hermillon still not made until 2018. This activity isn't related to the purchase of land (not eligible under CEF) but the eligible operations such as temporary occupations of land.
- Agreement no.4: PRO studies for phases 2 - 5 of the work. Of the 33 tenders being planned for this initial work phase, 3 have been notified, consultation is underway for 19, and DCEs are being drawn up for 3 as of 31/12/2018.
- Agreement no.5: works, project management and Project Ownership during the work phase.

Activity 19: Civil works in Susa plain (o.w.2A)

This activity aims at preparing 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 interconnection tunnel, to allow the traffic along the future new high-speed line and to integrate the new functionalities.

This Activity only covers engineering activities to prepare the several tenders for the following civil works. At the end of the Action, the tenders of the following works will be launched and the proposed contract award for the following works will be sent to the Contract Commission:

- Fences and security systems in construction site areas;
- Dismantling of the areas of the Autoport and the Consepi safe driving center, including the demolition of existing buildings;
- NLTL railway embankment and related secondary works for completion between the east entrance of the base tunnel and the west entrance of the interconnection tunnel;
- NLTL technical and security area;
- Bridge on Dora River;
- Railway buildings serving the NLTL;
- Susa International Station;
- Interference resolution work:
 - o utilities
 - o RFI Bussoleno-Susa railway line (carried out by RFI)

- o Adaptation of the roads SS24 and SS25 and local roads
- O Adaptation of A32 motorway and construction of new Susa Est interchange (carried out by by Sitaf).

At the end of the Action, the proposal of contract award for the above mentioned works will be sent to the Contract Commission.

Activity 20: Info point Henry Barrack (o.w. 2E)

The Henry Barrack building is owned by the Italian State and is currently partly used by the Guardia di Finanza. 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.

The Activity only covers detailed studies for designing the future renovation work and the preparation of the tender documents for the works; all activities of the compulsory HSE (Health, Security and Environment) assistance contract in the design phase are included herewith.

The Henry Barrack is owned by the Italian State and is currently partly used by the Guardia di Finanza

Activity 21: Maddalena-Susa (o.w. 3-4)

This Activity will cover the excavation of the base tunnel along the section Chiomonte - Clarea and Chiomonte-Susa Est.

Maddalena 1 is the geognostic tunnel realized during the period 2012-2017.

Reference design studies foresee a new access tunnel, Maddalena 2, which will be used as TBM (tunnel boring machines) access and assembly cavern. From Maddalena 2 TBM assembly cavern, the mechanized excavation is foreseen toward Susa (two tubes of 9.430 m). The Clarea security site and logistic cavern to assembly TBM will be bored with traditional method.

Clarea safety area and ventilation shaft will be excavated from La Maddalena gallery and will serve as one of the safety area and ventilation shafts for the base tunnel.

This activity covers the implementation of works' direction (maîtrise d'ouvrage) whose tender dossiers were prepared under Activity 18 and procurement procedure under Activity 6. Works direction contract was awarded in October 2019.

This Activity includes both engineering costs and the first part of the works. At the end of the Action, the following will be achieved:

- detail design of worksites and of the dedicated and customized TBM which will be used exclusively for these construction works;
- worksite preparation (gates, fencing, offices, roads, ...);
- Pile retain wall (berlinese method) bulkhead protecting the excavation of the entrance to the Maddalena 2 gallery;

- Excavations with traditional methods of earthworks activities for access tunnel (Maddalena 2). They cover the initial reinforcement and excavation of the entrance of the interconnecting tunnel between La Maddalena 1 and Clarea Safety Area;
 - o initial reinforcement, excavations and supporting structures of the entrance to the Maddalena 2 gallery;
 - o the interconnecting niche between the existing Maddalena 1 gallery and the connection gallery which will serve as an access for rescue vehicles ;
- Order of TBM, construction and its set up in supplier's factory. They are purchased directly from the group of companies awarded of the tender and used exclusively for the operational worksite covered by the contract.

Activity 22: Maddalena interconnecting Niches (o.w. 4A)

22 niches interconnecting niches (length 33-65 m with interdistance of about 400 m) along the exploratory tunnel of La Maddalena will be excavated. Until the pk 2+220, 8 niches allow vehicles to circulate in both directions in the tunnel; other 14 niches will be used for the storage of green rocks during the excavation of the base tunnel.

This Activity includes both engineering costs and works. The activity covers also the follow up of tender procedure for civil works and works direction (maîtrise d'ouvrage), whose tenders were prepared under Activities 6 and 18. The works contract was signed on 08/01/2020.

The following objectives will be reached:

- Relocate existing equipment and build temporary road platform;
- Excavate the 22 niches and complete the first phase lining (and other lining phases if needed);
- Worksite maintenance and support to police and military service (fencing installation, security equipment installation to guarantee the correct worksite public order):
 - o realization and extension of the enclosures with accompanying lighting and video surveillance in the area of the La Maddalena site;
 - o railway and drainage works for the implementation of the excavation sites for the base tunnel and the La Maddalena security area;
 - o maintenance of the existing installations in the Maddalena 1 gallery (underground pumping station and existing equipment maintenance), which is outside the scope of Activity 3;
 - o bulkhead work for the protection of future excavations of the base tunnel entrance connected to tracks/visitor spaces.

Activity 23: Modane and Maddalena (o.w.5)

Activity 23: Modane and Maddalena (o.w.5)

The base tunnel civil works along the section Villarodin-Bourget/Modane include:

1. excavation of a double tube section in mechanized excavation towards "La Maddalena" (2 tubes of 18.751m);

2. excavation of a double tube section in traditional towards "La Praz";
3. construction of Modane security area (approx. 750m).

This Activity includes both engineering costs and works, whose tenders were prepared under Activities 6 and 18 (this latter until 31/12/2018). Detailed design studies were approved and the works' tender was launched in March 2019.

At the end of the Action, the following objectives will be achieved:

- The Contractor (of the civil works) execution studies;
- The Contractor (of the civil works) design of the two dedicated and customized TBMs which will be used exclusively for these construction works;
- Order of the TBM (tunnel boring machines), construction and its set up in the supplier's factory;
- Worksite preparation: mobilization of material, human resources, upgrading the La Praz drift, installation of the external site, installation of platforms, ventilation, cooling and drainage installations required for underground works, installations to remove excavation materials;
- Design and order of the WURM (a workstation that is a part of TBM backup and is used for lining installation. This unit is used in case of open face shield TBMs to proceed simultaneously with excavation and lining activities with an evident schedule optimization in work completion) construction and its set up in the supplier's factory;
- realization of Piste A43, access to the site by the highway for all the site needs :
 - o open air works: earthworks / road works / drainage (lot 1)
 - o excavation work on a 195-m tunnel and associated roadworks (lot 2)

The TBM and the self-supporting tunnel lining equipment (WURM) are purchased directly from the group of companies awarded of the tender and used exclusively for the operational worksite covered by the contract.

Activity 24: La Praz-Modane (o.w. 6)

La Praz Modane will cover the excavation of the base tunnel along the section La Praz - Villarodin-Bourget/Modane, as follows:

1. Excavation of a double tube section in mechanized towards La Praz length (2 tubes of 9.717 m);
2. Excavation of La Praz security site in traditional excavation (approx. 750m);
3. Construction of and access adit (final connection with intertube tunnel) and technical cavern construction

This Activity includes both engineering costs and works, whose tenders are managed under A.6 and, until 31/12/2018, under A.18. Detailed design studies were approved and the works' tender was launched in March 2019

At the end of the Action, the following objectives will be achieved:

- Contractor (of the civil works) execution studies and their approval;
- Contractor (of the civil works) design of the two dedicated and customized TBMs, which will be used exclusively for this section of the base tunnel;

- Order of the TBMs (tunnel boring machines), construction and set up in supplier's factory. They are purchased directly from the group of companies awarded of the tender and used exclusively for the operational worksite covered by the contract;
- preliminary works from access tunnel La Praz to prepare underground worksite at the foot of La Praz access tunnel: initial reinforcements, supports and pre-treatment regularization of the connection gallery for the realization of the gallery for the concrete plant, technical gallery and the line galleries of said security area (even tracks, odd tracks) for a total length of at least 1,800 m
- Completion of at least 360m of the adit tunnel gallery with traditional method;
- Completion of at least 173 m of the technical cavern;
- Completion of at least 1,267 m of intertube tunnels, up and down lines, including assembly caverns and the launch of TBMs.

Activity 25: St Martin la Porte-La Praz (o.w.7)

The Activity covers the base tunnel activities and the section along Saint Martin La Porte - La Praz, as follows:

1. excavation of a single tube section in mechanized towards la Praz and unpair tube (8 439 m);
2. excavation of a double tube section in conventional excavation towards west entrance (2 tubes of 2 145 m);
3. excavation of a single tube in conventional excavation through the geological formation productive Houiller (1 769 m)

This Activity includes both engineering costs and works, whose tenders are managed under A.6 and, until 31/12/2018, under A.18. Detailed design studies were approved and the works' tender was launched in March 2019.

At the end of the Action, the following will be achieved:

- Contractor (of the civil works) execution studies and their approval;
- Contractor (of the civil works) design of the two dedicated and customized TBMs, which will be used exclusively for this section of the base tunnel;
- Order of the TBMs (tunnel boring machines), constructions and set up in supplier's factory. They are purchased directly from the group of companies awarded of the tender and used exclusively for the operational worksite covered by the contract;
- worksite installation: mobilization of human resources and material, installing the external site, installation of platforms, ventilation, cooling and drainage installations required for underground works, installations to remove excavation materials (conveyor belt, etc.).
- Excavation with conventional method covering the connecting galleries and logistic access for a total of at least 250 m in the Saint Martin La Porte drift area.

Activity 26: St Julien Montdenis (West entrance)-Saint Martin la Porte (o.w. 8)

The excavation of the base tunnel along this section will include the excavation from west entrance of two tubes of about 3 km with traditional methods.

This Activity includes both engineering costs and works, whose tenders are managed under A.6 and, until 31/12/2018, under A.18. Detailed design studies were approved and the works' tender was launched in March 2019.

At the end of the Action, the following objectives will be achieved:

- Contractor (of civil works contract) execution studies and their approval;
- Preliminary works on west worksite of Villard Clement (completion of the structure supporting the entry of the tunnel):
 - o site installations (installation of the external site, installation of platforms, ventilation, cooling and drainage installations required for underground works, installations to remove excavation materials to the Les Resses temporary storage site);
 - o earthwork and consolidation work on the west cut and cover tunnel;
 - o installation of the industrial site at the Les Resses temporary storage site for excavation materials;
- Excavation with traditional method of at least 300m for each two tubes of the base tunnel from west entrance.

Activity 27: St Jean de Maurienne (SNCF-R) (o.w. 9B)

In Saint Jean de Maurienne basin, civil works at the base tunnel will interfere with the national railway network. The required deviations will be done by SNCF Réseau, as indicated in agreements signed under the scope of A.6 and A.18.

According to the current studies prepared by the SNCF, the French public railway company, these works will be implemented in 6 phases.

Phase 1 and anticipated phase 2 (2A)

In Phase 1, the work simplify the Saint-Jean-de-Maurienne track plan and rebuild existing functionalities : Buildings (PAI LH, FSA LH,...) and substation.

At Saint-Avre, works cover the relocation of the relay and freight facilities, 7 km downstream in the Maurienne valley, and require the creation of an even bundle of 5 remotely controlled tracks, 3 of which are made available to a Railway Company.

The gypsum loading facilities are moved to the Hermillon site, 2 km downstream in the Maurienne valley.

Some works related to phase 2 are carried out at the same time of phase 1: these are the "anticipated phase 2" works, better defined by the name of phase 2A: temporary PEM, base works, PRA Cassin, RD81,...The objective of this phase is to allow the start of civil engineering works related to phase 2.

Phase 2

Phase 2 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

The objectives of this phase 3 are to re-establish the TRIMET 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

Phase 4 consists mainly of creating the new platform for the historic line.

The objectives of this phase are to allow:

the movement of the historic line to its final location;

- access to the base tunnel of the cross-border section from track 1RN.

Phase 5

Phase 5 consists of completing the Lyon-Turin infrastructure to allow work trains access to the base tunnel of the cross-border section.

Phase 6

This phase, outside the scope of SNCF Réseau, aims to bring the base tunnel of the cross-border section into service.

The scope of this activity during the period of validity of the Amendment to the Grant Agreement is the implementation of phases 1 and 2A.

During the anticipated phases 1 and 2A, work is being done to recreate the existing functionalities (marshalling yard, freight, loading Gypsum, railway station, bus station, roads, technical buildings, etc.) to allow the start of phase 2 on the New Line in [REDACTED]

Until end of 2018, the existing functionalities (marshalling yard, freight, loading Gypsum, railway station, bus station, roads, technical buildings, etc.) have been relocated to allow the start of phase 2 on the New Line [REDACTED]

[REDACTED] the mains works are those of phases 1 and 2A, consisting of lightening the Saint-Jean-de-Maurienne station's lane plan, thanks in particular to the relocation of certain railway functions to the Saint-Avre and Hermillon sites. The objective of this phase is to allow the start of civil engineering works related to phase 2.

This Activity includes both engineering costs and works. At the end of the Action, the following civil engineering works of of phases 1 and 2A will be completed:

- temporary railway station (Pôle d'Echange Multimodal);

Area Saint Avre CO12Y

- Earthworks Saint Avre;
- "PAI" Saint Avre;
- Railway Equipment;
- Transfer of logistics activities.

Area Hermillon CO12Z

- authorization "silos";
- Earthworks Hermillon;
- PAI Hermillon;
- railway equipment;

- Gypse station.

Area Saint Jean de Maurienne CO9B

- Completion of detailed design studies for phase 1M4 (final design Saint Avre and Hermillon), Phase 2 anticipée M6 (final design phase 2A) and Phase 2M6 (final design phases 2, 3, 4, 5 except railway equipment);
- Release of environmental and building authorization;
- Completion of deviation works and works at electric station and worksite;
- End of construction of the PAI LH building;
- End of construction of buildings FSA LH/GA1/GA2;
- End of construction "PRA René Cassin";
- End of construction roads and networks Ouest Arvan (Bastille-Cassin-Sibué);
- End of construction roads and networks area Amoudon/plan des Epines (RD81).

Activity 28: St Jean de Maurienne (TELT) (o.w. 9C)

Works in the plain of Saint Jean de Maurienne cover the construction of the international station and the associated road works, external arrangements and diversions of interfering networks. This will be done under TELT responsibility.

This Activity includes both engineering and preparatory works (tender prepared under A.6 and, until 31/12/2018, under A.18), covering a road connection between the West zone rotunda (at the level of the SDIS building offices and fire station of Saint Jean de Maurienne) and the RD906, providing access to the Saint Jean de Maurienne passenger building. The design of the multi modal railway station was approved on June 2015.

PMC tender was published in July 2019. At the end of the Action, the following will be completed:

- Design study of multi modal railway station (Pôle d'Echange Multimodal);
- Earth moving and construction of the related roadways;
- Detours and organization of the connecting networks;
- Road platform;
- Organization of the access roads for the north entrance to the rotunda of the city;
- Roundabout;
- Organization of the pedestrian and bicycle areas;
- Horizontal and vertical road signaling;
- Urban lighting.

Activity 29: Trimet and Villargondran dams (o.w. 9D)

Works will consolidate the river embankment in front of the entry of the base tunnel, in Villargondran. It requires displacements and creations of various networks.

This activity includes civil works and engineering contracts and all other contracts necessary for the implementation of their technical scope (works supervision and construction management, complementary fencing off activities for the sites during the works, etc.).

The activity covers the follow up of tender procedure for civil works, whose tender dossier was prepared under A. 6 and, until 31/12/2018 under A.18. Lot 1 contract was signed in September 2019 and works started in October 2019.

Lot 1 works cover:

- o Reinforcement of the dyke by reinforcing the existing wall (by nailing on a line of about 500m).
- o backfilling at the rear (creation of a platform (approximately 200,000m³) and
- o laying of riprap (linear of about 800m)),
- o construction of the embankment for the displacement of the RD1006 from the bridge over the Arc towards Saint Jean de Maurienne (linear of about 400m),
- o rerouting and networking
- o relocation and re-creation of the Saint Jean de Maurienne/Villargondran/Saint Julien Montdenis water supply valve chamber

Lot 2 works cover:

- o the rerouting of the RD 1006
- o the creation of networks,
- o the construction of pavements and networks on the platform under the station.

At the end of the Action, both lots 1 and 2 will be completed.

Activity 30: Arc Bridge (o.w. 9E)

The Arc Bridge is a bow string structure with a span of 135 metres allowing the new line to cross the river "Arc" before entering the base tunnel on the French side.

This activity includes engineering costs only, covering the design studies of the bridge, whose tenders were prepared under A.6 and until 31/12/2018 under A.18

Activity 31: Management of excavated materials-Italy (o.w. 10)

The Activity concerns the Salbertrand industrial plant for material processing, the transportation, embankment and disposal of non-reusable part and the construction of Torrazza and Caprie technical areas equipped for the management of excavated materials.

The management of excavated materials (MATEX, EXcavated MATerials) is one of the most critical activity inside the construction of NLTL. The management strategy of excavated materials is intended to reduce negative impacts of transports by reducing, as much as possible logistic by trucks, using in particular material handling by train and to prevent pollution by using high performing vehicles.

Salbertrand industrial plant will receive the material excavated in civil works at base tunnel in Italy. From Salbertrand the excavated material will be transported by railway to Torrazza and Caprie technical areas, where it will be processed for further uses. The non-reusable

material will be stocked in Salbertrand.

Following the beginning of excavating operations, MATEX coming from all outdoor and underground constructions sites (Maddalena 2 e 1 bis tunnels, Connection 1 e 2, Base and Interconnection Tunnels, will be moved by trucks to the Salbertrand Area where plans for treating materials (STM) and railway connections will be installed. Treated and classified materials will be then transported to their different final destinations, according with the logistic organization defined by the project itself.

This activity covers the follow up of tender procedure for works and works' direction (maitrise d'ouvrage), whose tender dossier was prepared under A.6 and, until 31/12/2018, A.18.

The contract for works direction has been awarded on 04/02/2020.

Activity 32: Management of excavated materials-France – (o.w.11)

The Activity covers the works related to management of excavated materials produced by the civil works.

From worksites, the excavated material will be transported through Illaz and Modane rail connection to deposit sites.

This activity covers works for using the excavated material and the disposal of its non-reusable parts and includes works contracts and all contracts necessary to implementation of their technical scope. It includes both engineering and works costs.

The activity covers the follow up of tender procedure for works' direction (maitrise d'ouvrage), whose tender dossier was prepared under A.6 and, until 31/12/2018, under A.18.

At the end of the Action, the following will be achieved:

- Signature of the works' direction (maitrise d'ouvrage). Tender was published in March 2018 ;
- Signature of the agreement with SNCF-Réseau for works on railway connections;
- Signature of civil works contract;
- Completion of preliminary works: earth removal operations, movement of material to organize the areas, organization of surface water and hydraulic organization of watercourses;
- Order of STM (Selective treatment of materials machine) located in Illaz and Modane;
- Construction of technical area equipped for the management of excavated materials (Illaz).

Activity 33: Engineering and other costs not included in other OW

- This activity concerns 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.

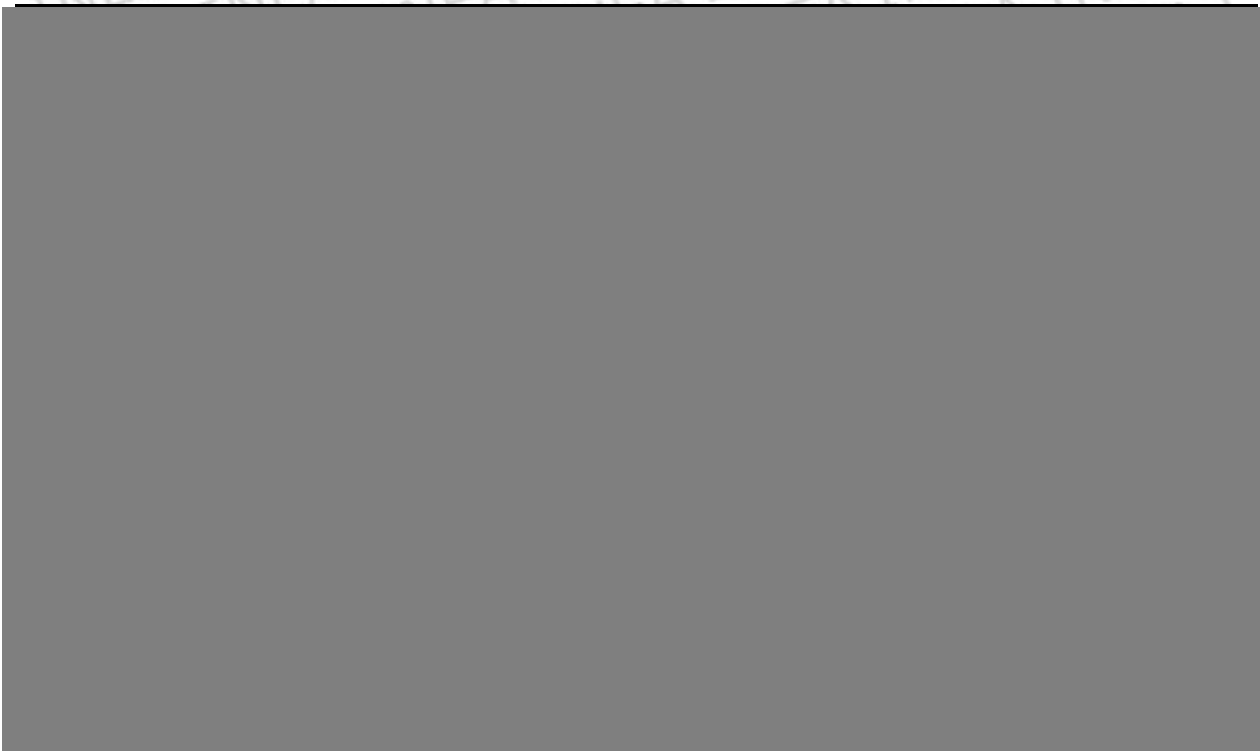
All the above engineering services will be entrusted to specialist companies external to TELT through tenders and will not be included in the project management costs envisaged in Activity 6.

At the end of the Action, the following contracts will be signed:

- coordination of security during execution on the French side;
- preparation of the executive project of environmental monitoring on the Italian side;
- ante operam environmental monitoring and the water law on the French side;
- engineering technical studies or audit aimed at checking the engineer (MOE) and the sub-contractors design and planning;
- execution of the environmental monitoring plan ante operam, in course of work and post operam on the Italian side;
- coordination of security during execution on the Italian side;
- environmental coordination of the activities on the Italian side ;
- studies for the creation of an electrical substation for the supply of rail traction in the middle of the base tunnel;
- studies for the creation of an electrical substation for the supply of rail traction at the entrance of the base tunnel.

ARTICLE I.5 – MILESTONES AND MEANS OF VERIFICATION

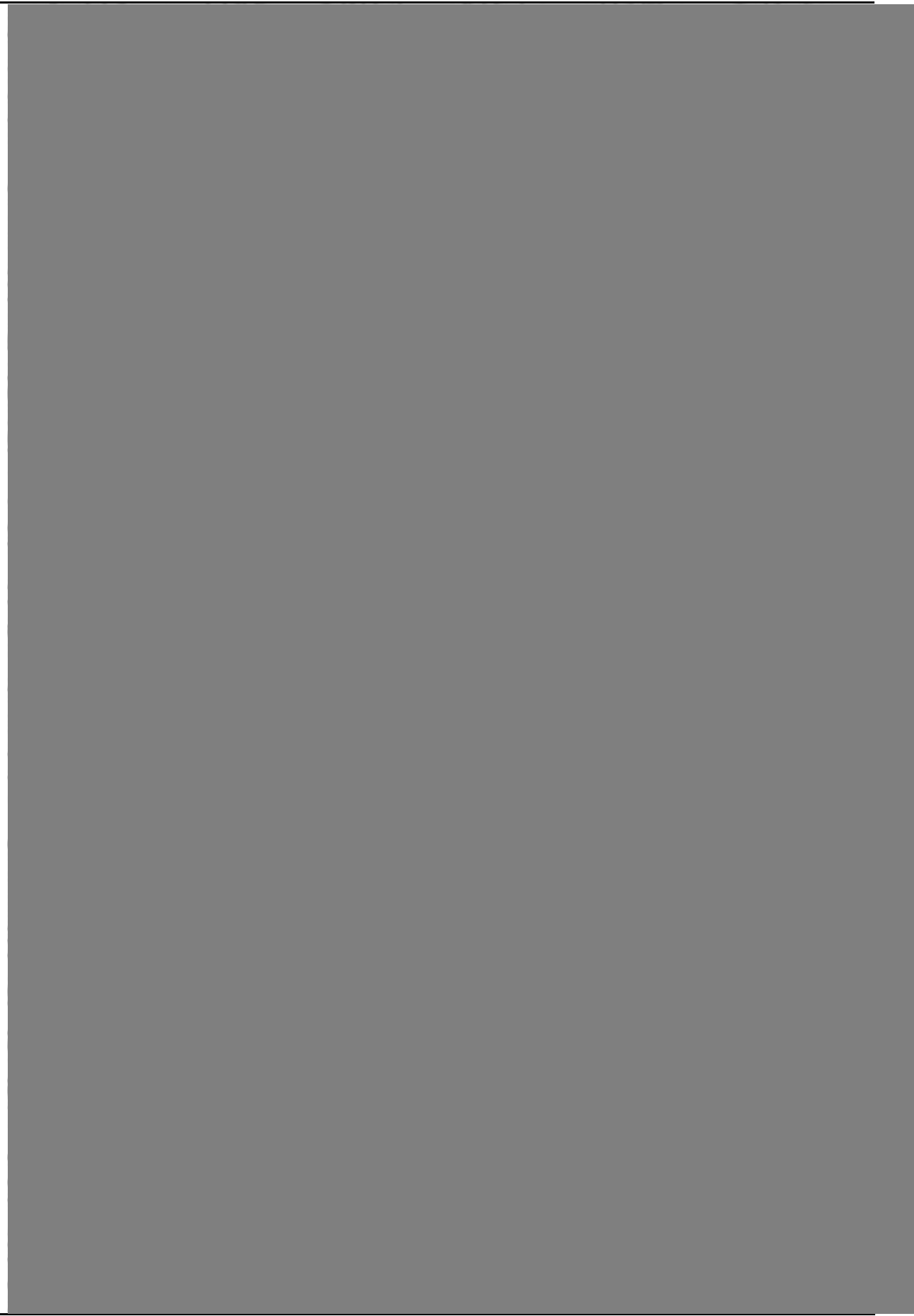
Milestone number	Milestone description	Indicative completion date	Means of verification
-------------------------	------------------------------	-----------------------------------	------------------------------







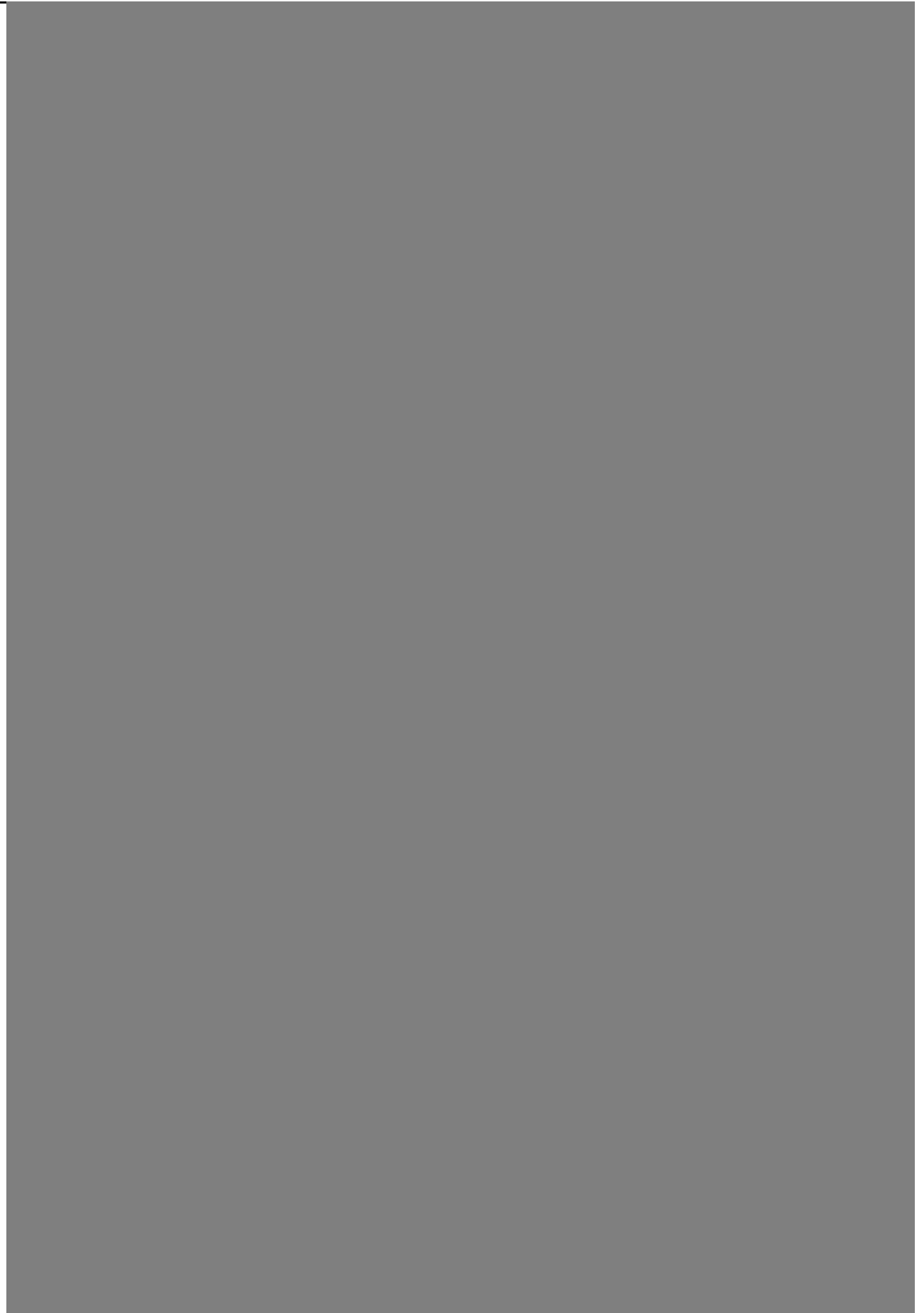


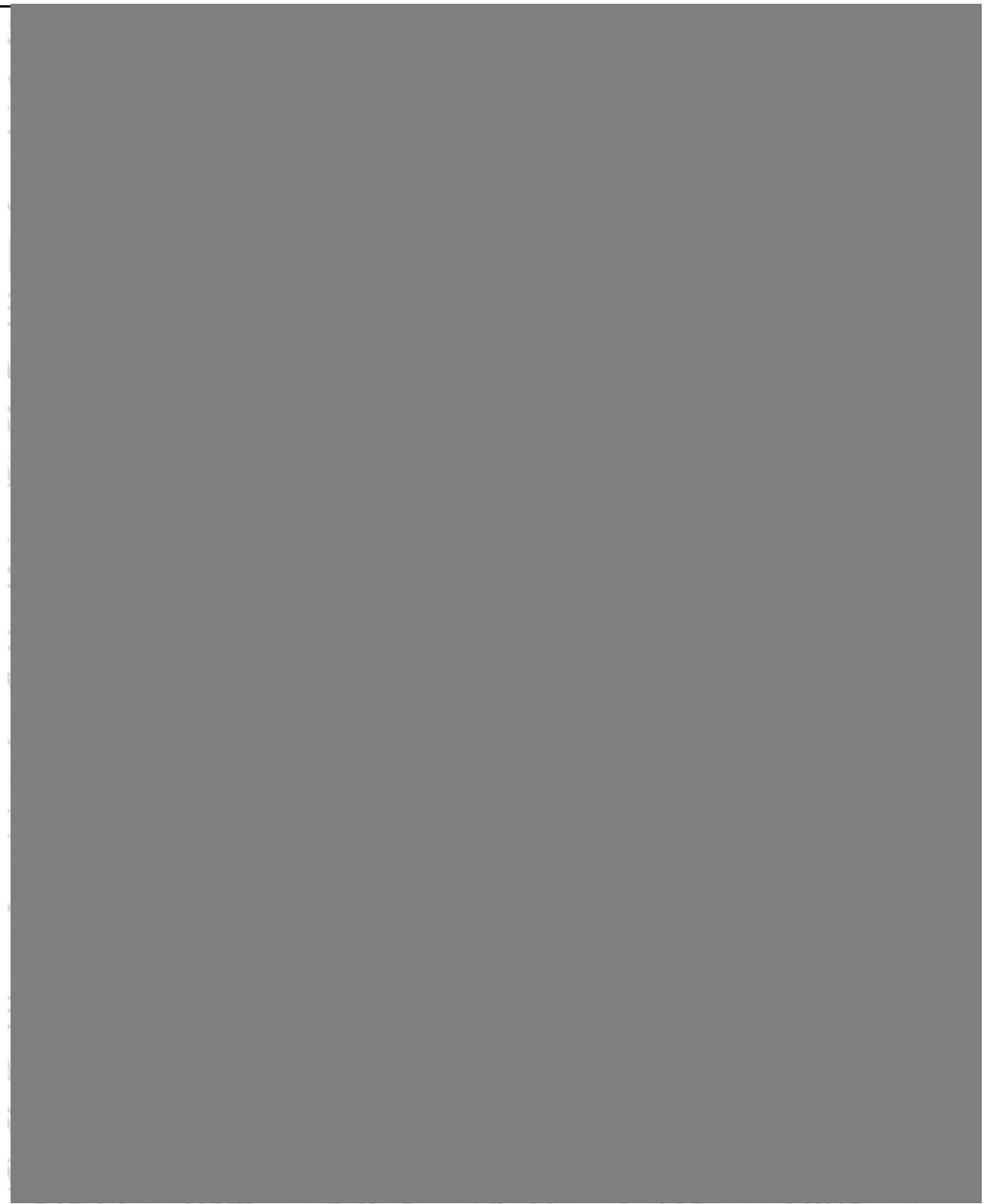












INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA

(6) Annex III shall read as follows:

**"ANNEX III
ESTIMATED BUDGET OF THE ACTION**

Table 1: Planned sources of financing of the eligible costs of the action

Financing sources	Amount of financial contribution to the action eligible costs (EUR)	
	MIT	MEDDE
1. CEF-Transport financing	449,335,327	364,446,573
2. Beneficiary's own resources	0	0
of which:		
(a) EIB loan	0	0
3. State budget(s)	613,265,788	488,007,062
4. Regional/ local budget(s)	0	0
5. Income generated by the action	0	0
6. Other sources	0	0
TOTAL	1,062,601,115	852,453,635

Table 2: Indicative breakdown per activity and per beneficiary of estimated eligible costs of the action (EUR)

Activities	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total	Pro-rata share of the estimated eligible costs (%)
ELIGIBLE DIRECT COSTS											

INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA



INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA

INEA INEA INEA INEA INEA INEA INEA INEA
' INEA INEA INEA INEA INEA INEA INEA INEA
A INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA



INEA INEA INEA INEA INEA INEA INEA INEA
' INEA INEA INEA INEA INEA INEA INEA INEA
A INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA

INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA



INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA

INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA
' INEA INEA INEA INEA INEA INEA INEA INEA INEA
A INEA INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA INEA



INEA INEA INEA INEA INEA INEA INEA INEA INEA INEA
' INEA INEA INEA INEA INEA INEA INEA INEA INEA
A INEA INEA INEA INEA INEA INEA INEA INEA INEA
INEA INEA INEA INEA INEA INEA INEA INEA INEA

Table 3: Indicative breakdown per beneficiary of the maximum CEF contribution (EUR)

	Estimated contribution	Pro-rata share of the maximum CEF contribution (%)
MIT	449,335,327	55.22%
MEDDE	364,446,573	44.78%
Total	813,781,900	100.00%

"

Article 2

All the other provisions of the grant agreement shall remain unchanged.

Article 3

The present amendment shall form an integral part of the grant agreement and it shall enter into force on the date on which it is signed by the last party. It shall take effect on 31/12/2019.

SIGNATURES

For the beneficiary Ministero delle
Infrastrutture e dei Trasporti



Done at Roma, on

For the Agency

Andreas Boschen



Done at Brussels, on

In duplicate in English.

