

Activity	o.w.	ACTIVITY DESCRIPTION
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4		EXPLORATORY ACTIVITIES FROM THE FOOT OF THE SAINT-MARTIN-LA-PORTE ACCESS TUNNELS
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9		UTILITIES DIVERSIONS IN ITALY
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Activity 33 - ENGINEERING AND OTHER COSTS NOT INCLUDED IN OTHER O.W. 47

Activity 1 – Activity 6 - TELT ADMINISTRATIVE COSTS FOR STUDIES AND WORKS

Description:

The main purpose is to provide support for several activities.

Activity 1 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.

This activity was completed at 31/12/2017.

Activity 6 covers 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
- 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

Milestone	
Approval of the 2016 accounts of TELT	31/12/2016



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Approval of the 2017 accounts of TELT	31/12/2017
Approval of the 2019 accounts of TELT	23/04/2020
Approval of the 2020 accounts of TELT	01/04/2021
Approval of the 2021 accounts of TELT	01/04/2022
Approval of the 2022 accounts of TELT	31/12/2022
Signature of the Conventions	12/03/2020
Signature of the "Contratto di Programma" TELT MIT FS	30/09/2020
Signature of the Conventions	31/03/2021
Signature of the agreement with for activity 10 (Chiomonte Interchange, o.w.4C)	31/12/2019
Signature of the agreement with for activity 11 (New Autoport o.w.2C)	30/06/2020
Signature of the agreement with driving" track, o.w. 2D) (final design) for activity 12 (New "Safe	28/02/2019



Activity 2 - 3 - 4 - 5 - STUDIES AND EXPLORATORY INVESTIGATION

Description:

This activity concerns the residual costs of:

- Villarodin-Bourget/Modane descending shafts maintenance costs;
- operations in Chiomonte worksite (la Maddalena) to clear the worksite and include ongoing contracts on project management, safety coordination, environmental monitoring, disposal of the excavated material, monitoring of the structure until the achievement of the construction;
- the exploratory and geological investigations activities at the second branch of the existing access tunnel and more than 10 km exploratory tunnel (south tube) at Saint Martin La Porte;
- residual costs linked to 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.

Milestone	
Production of monitoring reports in 2019	31/12/2019
Production of monitoring reports in 2020	31/12/2020
Completion of the first part of La Maddalena gallery contract	26/08/2016
Production of monitoring reports in 2021	31/12/2021
End of activities (La Maddalena)	31/12/2019
Start of geological investigations with TBM at Saint Martin la Porte gallery (p 2) at Saint Martin la Porte gallery (part 2)	o7/09/2016
Completion of the SMP investigation by Completion of the SMP investigation by TBM (part 2)	by 15/09/2019
Breakthrough P2	15/09/2019
Start "contre-attaque" part 3b	31/12/2019
Part. 3b – 400 m before breakthrough	30/06/2020
Part. 3b – 700 m before breakthrough	31/12/2020
Completion of Saint Martin La Porte exploratory tunnel	30/09/2021
Completion of Saint Martin La Porte exploratory tunnel testing activities	31/12/2022
Completion of the modified reference project	31/12/2019

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Activity 7 - RELEASE OF THE LAND ACQUIRED FOR PUBLIC PURPOSES AND DEMOLITIONS

Description:

This activity concerns the residual costs of the operations required to prepare the land for the worksites.

In France, the demolition of approximately 45 buildings in the Saint Jean de Maurienne basin (Saint Jean de Maurienne, Villargondran, Saint Julien Mondenis).

Building demolitions will be completed at 50 % by the end of 2019. The completion of the demolitions is previewed within the end of 2022.

Activities included in this Grant Agreement:

- demolitions in the plain of Saint Jean de Maurienne phases 1-2-3-4;
- temporary occupations of areas in sites of Chiomonte, Giaglione, San Didero-Bruzolo, Torrazza Piemonte,
- · Salbertrand;

Milestone	
Start of works for demolition	15/01/2019
Temporary occupations of areas in sites of Chiomonte-Giaglione (first phase)	30/06/2020
Temporary occupations of areas in sites of Chiomonte-Giaglione (second phase), Torrazza Piemonte, Salbertrand	31/12/2021
End of demolitions works phase 1, 2 and 3	31/12/2021
End of demolitions works phase 4	31/12/2022

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Activity 8 - UTILITIES DIVERSIONS IN FRANCE
Description:
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: • Fibre networks: • Phone networks: • Gas networks:
The following chiestives will be reached by the and of the Action:
The following objectives will be reached by the end of the Action: 1. Agreement owner 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 deviation Fréjus;
2. Agreement owner in Villarodin Bourget municipalities) will cover studies for the electric deviation. Completed at 31/12/2016;
3. Agreement owner 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 (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 (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 (in Saint Julien Montdenis municipality): the deviation of Optical Fibre Network will allow building the Villard Clément Cut and Cover;
7. Agreement owner (in Saint Jean de Maurienne municipality): will cover studies for the diversion of the gas transmission network and the studies on the impact of work for TELT on the gas network; 8. Agreement owner (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 (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 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 (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 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 (in Saint Jean de Maurienne municipality): the deviations of optic fiber networks will allow works on the Bastille sector; 14. Agreement owner (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:

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Description: 15. Agreement owner 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 pqrcel Martinet, RD81, sector old Resses, deviation Bastille post and construction of new Bastille) are carried out according to the planning of the main work (first phase until 31/12/2021); 16. Agreement owner (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 (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 gene for the main works; 18. Agreement owner (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 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 (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 (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 (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 (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. 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: local electricity Fibre networks: Phone networks: Gas networks: Milestone Finalising works agreements 1 27/12/2016 Start of works on the deviation 15/07/2019 Progress in utilities diversions 2020 31/12/2020 Progress in utilities diversions 2021 31/12/2021 Progress in utilities diversions 2022 31/12/2022

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Activity 9 - UTILITIES DIVERSIONS IN ITALY

Description:

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 (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 (in Torrazza Piemonte municipality): the medium pressure gas pipeline will be deviated to allow the beginning of the deposit;
- 3. Agreement owner (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 (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 (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 Comune di Chiomonte (Chiomonte municipality): the deviation of an electrical line will allow preparing works site logistics;
- 7. Agreement owner Comune di Salbertrand (Salbertrand municipality): the deviation of underground power lines will allow preparing works site logistics;
- 8. Agreement owner (Salbertrand municipality): the deviation of water mains and sewerages will allow preparing works site logistics;
- 9. Agreement owner (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 (San Didero and Bruzolo municipalities): the deviation of an exposure 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.



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Milestone	
Finalising works agreements 3, 10	31/12/2019
Start of works on the deviation	31/12/2020
End of works on the deviation	31/12/2022
Progress in utilities diversions 2020	31/12/2020
Progress in utilities diversions 2021	31/12/2021
Progress in utilities diversions 2022	31/12/2022

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Activity 10 - CHIOMONTE INTERCHANGE

Description:	
This activity, under responsibility the new interchange in Chiomonte which will connect the A32 motorway to the work the worksite for the excavation of Clarea ventilation shaft and underground safety a	
This interchange will be used by heavy-goods vehicles to supply material to the work materials to the processing plant in Susa valley without using local roads. Chiomonte the above indicated worksites from/to Torino.	
This activity includes:	
• detailed design (under esponsibility), which was completed on 16/07/2018;	
• tendering the works contract (under responsibility). Works tender was launch	ned on 20/11/2019;
works for widening Clarea viaduct (track side Torino) and start of works of the Charlesponsibility).	niomonte interchange (under
Milestone	
Tender publication	20/11/2019
Start of evaluation of applicants qualification	08/02/2020
Start of construction work for the Chiomonte Interchange	31/08/2020
Foundation construction – end of activities	31/12/2021
End of widening activities for viaduct Clarea (track side Torino)	31/12/2022

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Activity 11 - RELOCATION OF A32 AUTOPORT

Description:		
In Susa valley, the alignment of the new high speed line will interfere with the A32 motorway, operated by the 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 responsibility), which was completed on 28/11/2018;		
• tendering the works contract (under responsibility). Works tender was launched on 29/01/2020;		
• start of works for the new Autoport and construction of operation control building (under responsibility).)		
Milestone		
Tender publication	29/01/2020	
Start of construction works for the new Autoport	31/12/2020	
Start of building (civil work -operation control building)	01/08/2021	
End of civil works (except finishing works)	31/12/2022	



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Activity 12 - RELOCATION OF "SAFE DRIVING" TRACK

Description:	
In Susa valley, the alignment of the new high speed line will interfere with the which will be relocated into a more suitable place.	e driving training centre operated by
The Italian government asked to relocate this cars safety track to Buttigliera	and bike safety track to Cesana.
Subsequently, the company announced on 23/10/2019 that the Municipality of Cesana Torinese intended to deny its permission to host the Safe Driving Motorcycle Circuit on its territory, thus requiring the same a new revision of the project.	
completed the Project Design (Progetto Definitivo) in May 2019.	
This activity covers the detailed design studies (under responsibility).	
Milestone	
Delivery of the final project by	27/05/2019
Send New Project to	31/07/2020
Agreement signature for detailed design execution	31/12/2021

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Activity 13 - INTERCONNECTION TUNNEL SUSA BUSSOLENO

Description:

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.

Milestone	
Tender for PMC assistance contract	10/04/2019
Closure of the tender (receipt of candidatures)	24/05/2019
Approval of contract award from TELT Board	15/12/2020
Tender for main works	01/09/2021
Proposal of contract award sent to Contracts Commission	31/12/2022

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Activity 14 - ELECTRIC CONNECTION SUSA-VENAUS

Description:

This Activity includes one agreement with 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.

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

- Chiomonte company (local public supplier) will be responsible for:
- Detail design and approval procedures;
- Diversion of 132 kV cables;
- Realisation of electrical substation 132/15 kV;
- Realisation of cable connection to (Chiomonte)

Milestone	
Signature of agreement with	31/12/2019
Final design approval by TELT	30/06/2020
Completion of works for electrical power supply for Chiomonte	31/10/2022

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Activity 15 - AVRIEUX SHAFTS

Description:

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 (approxiamtely 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 by end of august 2020. 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 by 31/01/2021.



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Milestone	Date
Tender notice publication for the civil works	30/03/2018
Receipt of technical and financial bids from selected candidates	31/01/2019
Proposal of contract award sent to Contracts Commission	28/02/2020
Approval of contract award from TELT Board	07/05/2020
Start of works on worksite	31/08/2020
Start of excavation of shafts (P1)	31/01/2021
Start of excavation of shafts (P3))	01/08/2021
End of excavation of shafts	31/12/2022

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Activity 16 - VILLARD CLEMENT CUT AND COVER

Description:

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

Milestone	Date
Signature of the contract	28/01/2019
Start of work on worksite	28/02/2019
Temporary shift of RD 1006 (departmental road with national stakes)	09/08/2019
Temporary shift of Highway A43	31/10/2019
End of construction plots 1, 2, 3 box shaped underpass	15/07/2020
End works of final supports	31/12/2021



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Activity 17 - ELECTRIC CONNECTION FOR FRENCH WORKSITES

Description: This activity covers agreements with French national or local electric power suppliers 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 works for the construction of electric substations and cables connections with the national electric networks. This activity not only covers 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 (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; (in Villarodin-Bourget municipality): building a temporary electrical 2. Agreement owner connection for the construction of the Avrieux shafts, on the site "le Moulin (completed at 31/12/2018); 3. Agreement owner (in Avrieux municipality): bringing Electrical power supply for the Avrieux shaft construction site; 4. Agreement owner (Saint-André (La Praz municipality): bringing electric power supply for the La Praz construction site; 5. Agreement owner (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 (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);



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Agreement owner Villarodin-Bourget - in the commune of Villarodin-Bourget

It consists in the creation of the electrical transformer station 63/20 KV for the electrical supply of the site in a first time then of the auxiliaries High Voltage and for the power supply electric traction of the base tunnel in the operating phase in a second stage.

Milestone	
Finalizing studies and works agreement 1	01/01/2017
Start of works/studies	01/02/2020
Material ordered	30/09/2020
Building completed and delivered	30/04/2021
End of works/studies	31/12/2022

Agreement owner - in the commune of Saint Jean de Maurienne and Villargondran

Power supply to the electrical substation for:

- 1. Electric power supply for the 1500 V Railway Traction
- 2. Electrical power supply for base tunnel auxiliaries (Lighting and tunnel ventilation)

2. Electrical power supply for base turner auxiliaries (eighting and turner vertilation)	
Milestone	
Finalising studies and works agreement 6	11/07/2017
Start of works/studies	01/01/2018
Signature of connection agreement	28/02/2020
Start of Works	30/04/2020
Start of trenching in l'Arc (Saint-Julien-Montdenis)	30/07/2020
Start of cables laying (Saint-Julien-Montdenis)	31/05/2021
End of works/studies	31/12/2021



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Agreement owner	- in the commune of Saint Julien Montdenis
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Connection for 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.

Milestone	
Finalising studies and works agreement 5	18/02/2019
Start of works/studies	31/03/2020
Orders for materials	30/10/2020
Commissioning of installations	30/06/2021
End of works	31/12/2021



Activity 19 - CIVIL WORKS IN SUSA PLAIN (O.W.2A)

Description

This activity covers 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. Contractor detail design of the works, construction worksites preparation and start of civil works are foreseen as along:

- fences and security systems in construction site areas
- dismantling of the areas of the Autoport and the 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:
 - utilities
 - Bussoleno-Susa railway line
 - Adaptation of the roads SS24 and SS25 and local roads

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

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Milestone	
Tender for PMC assistance contract	10/04/2019
Closure of the tender (receipt of candidatures)	24/05/2019
DCE sent to selected candidates	21/04/2020
Approval of contract award from TELT Board	15/12/2020
PMC contract award	16/02/2021
Tender for main works	01/09/2021
DCE sent to candidates	01/02/2022
Proposal of contract award sent to Contracts Commission	01/11/2022

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Activity 20 - INFO POINT HENRY BARRACK (O.W.2E)

Description

Renovation works and transformation of part of the former armed force Barrack into a TELT Info Point.

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

Once the NLTL works have been completed, the premises used for Info point will be returned to the same Guardia di Finanza.

Activities included in this Grant Agreement:

PMC activity foreseen is:

- · Detail design for main works
- Preparation of Tender Dossier (DCE)
- Construction supervision.

HSE activity foreseen is:

HSE plan
 Safety coordination.

Cost: 140 K€

Milestone	
Tender for PMC assistance contract Henry Barrack	07/02/2020
1st order to PMC	15/07/2020
Tender for HSE assistance contract Henry Barrack	24/04/2020
1st order to HSE	25/09/2020
Tender for main works	07/06/2021



Activity 21 - MADDALENA - SUSA (O.W.3-4)

Description:

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:
 - ✓ initial reinforcement, excavations and supporting structures of the entrance to the Maddalena 2 gallery;
 - ✓ 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.



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Milestone	Date
Proposal of contract award sent to Contracts Commission	16/05/2019
Reply from the Contract Commission	02/07/2019
Approval of contract award from TELT Board	25/06/2019
PMC contract award	18/10/2019
Main works Tender notice publication	01/07/2019
Closure of the tender (receipt of candidatures)	25/09/2019
DCE sent to selected candidates	08/10/2020
Main works contract award	15/12/2021
Order for TBM 1	01/01/2022
Set up of TBMs in supplier's factory	31/12/2022



Activity 22 - MADDALENA INTERCONNECTING NICHES (O.W.4A)

Description:

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):
 - ✓ realization and extension of the enclosures with accompanying lighting and video surveillance
 in the area of the La Maddalena site;
 - ✓ railway and drainage works for the implementation of the excavation sites for the base tunnel
 and the La Maddalena security area;
 - ✓ 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;
 - bulkhead work for the protection of future excavations of the base tunnel entrance connected to tracks/visitor spaces.

Date
25/04/2019
05/07/2019
15/10/2019
04/12/2019
12/12/2019
27/12/2019
17/02/2020
31/05/2020
31/12/2020
31/05/2021
31/12/2021
31/12/2022

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Activity 23 - MODANE AND MADDALENA (O.W5)

Description:

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:
 - ✓ open air works: earthworks / road works / drainage (lot 1);
 - ✓ excavation work on a 195-m tunnel and associated roadworks (lot 2).

The TBMs 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.

Milestone	
Tender notice publication for the civil works	12/03/2019
Closure of the tender (receipt of candidatures)	28/05/2019
DCE sent to selected candidates	18/11/2019
Receipt of technical and financial bids from selected candidates (*)	18/06/2020
Proposal of contract award sent to Contracts Commission (*)	30/11/2020
Reply from the Contract Commission (*)	16/01/2021
Approval of contract award from TELT Board (*)	31/01/2021
Signature of the contract (*)	28/02/2021
Order of TBM1 & TBM2	01/10/2021
Set up of TBMs in supplier's factory	01/10/2022
Set up of WURM in supplier's factory	31/12/2022

TINNEL CUDALDIN LYON TUDIN

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- (*) The date of receipt of the offers has been postponed due to the current health crisis. This delay has been counterbalanced:
 - a) with a contraction of 3 weeks of the of evaluation period by the Committee, coherent with the actual timing and
 - b) with a contraction of one month between the approval of the Board and the signature of the contracts with the "declaration of urgency" in order to cut the Antimafia evaluation of 30 days.

This rescheduling in the general framework of the activites, appears realistic and feasible.



Version of: 30/04/2020

Activity 24 - LA PRAZ - MODANE (O.W.6)

Description:

- 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.

Milestone	Date
Tender notice publication for the civil works	12/03/2019
Closure of the tender (receipt of candidatures)	28/05/2019
DCE sent to selected candidates	18/11/2019
Receipt of technical and financial bids from selected candidates(*)	29/06/2020
Proposal of contract award sent to Contracts Commission (*)	30/11/2020
Reply from the Contract Commission (*)	16/01/2021
Approval of contract award from TELT Board (*)	31/01/2021
Signature of the contract (*)	28/02/2021
Order of TBMs	31/12/2021
Set up of TBMs in supplier's factory	31/12/2022
End of access adit tunnel gallery and Excavation of technical cavern	30/09/2022

TINNEL FURAL PIN TUYON TURIN

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Version of: 30/04/2020

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- a) with a contraction of 3 weeks of the of evaluation period by the Committee, coherent with the actual timing and
- b) with a contraction of one month between the approval of the Board and the signature of the contracts with the "declaration of urgency" in order to cut the Antimafia evaluation of 30 days.

This rescheduling in the general framework of the activites, appears realistic and feasible





Activity 25 - ST MARTIN LA PORTE - LA PRAZ (O.W.7)

Description:

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.

Milestone	Date
Tender notice publication for the civil works	12/03/2019
Closure of the tender (receipt of candidatures)	28/05/2019
DCE sent to selected candidates	18/11/2019
Receipt of technical and financial bids from selected candidates (*)	29/06/2020
Proposal of contract award sent to Contracts Commission (*)	30/11/2020
Reply from the Contract Commission (*)	16/01/2021
Approval of contract award from TELT Board (*)	31/01/2021
Signature of the contract (*)	28/02/2021
Order of TBM	31/12/2021
Set up of TBM in supplier's factory	31/12/2022



TINNEL CUDALDIN LYON TUDIN

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Version of: 30/04/2020

- (*) The date of receipt of the offers has been postponed due to the current health crisis. This delay has been counterbalanced:
 - a) with a contraction of 3 weeks of the of evaluation period by the Committee, coherent with the actual timing and
 - b) with a contraction of one month between the approval of the Board and the signature of the contracts with the "declaration of urgency" in order to cut the Antimafia evaluation of 30 days.

This rescheduling in the general framework of the activites, appears realistic and feasible





Activity 26 - ST JULIEN MT DENIS (WEST ENTRANCE) - SMP (O.W.8)

Description:

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):
- ✓ 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);
- ✓ earthwork and consolidation work on the west cut and cover tunnel;
- ✓ 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.

Milestone	Date
Tender notice publication for the civil works	12/03/2019
Closure of the tender (receipt of candidatures)	28/05/2019
DCE sent to selected candidates	18/11/2019
Receipt of technical and financial bids from selected candidates (*)	08/06/2020
Proposal of contract award sent to Contracts Commission (*)	30/11/2020
Reply from the Contract Commission (*)	16/01/2021
Approval of contract award from TELT Board (*)	31/01/2021
Signature of the contract (*)	28/02/2021
Start of works	02/04/2021
Start of excavation conventional tunnelling	01/03/2022
Conventional excavation, about 300 m for each tube reached by excavation conventional tunneling	31/12/2022

^(*) The date of receipt of the offers has been postponed due to the current health crisis. This delay has been counterbalanced:

- a) with a contraction of 3 weeks of the of evaluation period by the Committee, coherent with the actual timing
- b) with a contraction of one month between the approval of the Board and the signature of the contracts with the "declaration of urgency" in order to cut the Antimafia evaluation of 30 days.

This rescheduling in the general framework of the activites, appears realistic and feasible



Activity 27 - ST JEAN DE MAURIENNE (SNCF-R) (O.W.9B)

Description:

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 as indicated in agreements signed under the scope of A.6 and A.18. According to the current studies prepared by the 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 symplify the Saint-Jean-de-Maurienne track plan and rebuildexisting 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.

This phase is schematized as follows:

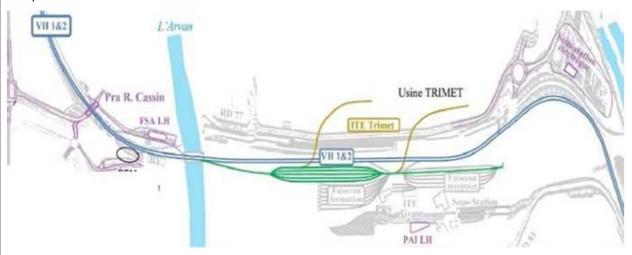


Diagram of Saint-Jean-de-Maurienne at the commissioning phase 1

The temporary railway station (PEM transitoire) will be built by



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 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:

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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 a 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 2022-2023.

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 in 2022-2023.

From 2019 to 2022 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).



Milestone	Date
Signature Convention CFI 4 (financing agreement for design Phase 2 to 5 and preparation of tenders)	12/06/2018
Signature Convention CFI 5 (financing agreement for payment of works and management of works)	23/07/2018
Area Saint Avre CO12Y	
End of construction Earthworks Saint Avre	30/12/2020
End of construction "PAI" Saint Avre	30/09/2020
End of construction Railway Equipment	30/12/2021
Transfer activity logistics	30/04/2022
Area Hermillon CO12Z	
Building authorization "silos"	30/12/2019
End of construction Earthworks Hermillon	30/12/2020
End of construction PAI Hermillon	30/09/2020
End of construction Equipements Ferroviaires	30/12/2021
End of construction Gypse station	30/06/2022
Area Saint Jean de Maurienne CO9B	
Environmental authorization "Ouest Arvan"	15/01/2020
Environmental authorization "Est Arvan "	30/10/2020
Building authorization "PEM Transitoire"	01/01/2020
Building authorization "FSA LH "	15/01/2019
Completion detailed design "Phase 1 M4"	15/01/2019
Completion detailed design "Phase 2 anticipée M6"	30/10/2019
Completion detailed design "Phase 2 M6" (except railway equipments)	30/04/2020
End of construction "Digue des Resses "	30/12/2019
End of construction "PAI LH"	30/07/2020
End of construction "FSA LH /GA1/GA2"	30/12/2020
End of construction "PEM transitoire"	30/12/2021
End of construction "PRA René Cassin"	30/12/2020
End of construction roads and networks Ouest Arvan (Bastille-Cassin-Sibué)	30/12/2021

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End of construction roads and networks area Amoudon/plan des Epines (RD81)	31/12/2022
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COST detail and financial forecast-works only (€ current) – period 2019-2022:





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C09B			
DESIGNATION	WBS N7	CFI (convention	PERIODE 2018-2022
Voies ferrées SJ M	AM01	CFI5	2.512.054,34
Voies ferrées St Avre	AMY1	CFI5	8.872.502,84
Voies ferrées Hermillon	AMZ1	CFI5	2.192.075,96
Energie SJM	AX01	CFI5	1.109.286,29
Energie St Avre	AXY1	CFI5	693.368,95
Energie Hermillon	AXZ1	CFI5	481.732,06
Base travaux et parc à matériaux	CN03	CFI5	9.171.989,80
Essais Techniques SJM	CT01	CFI5	847.080,13
Essais Techniques St Avre	CTY1	CFI5	1.009.634,33
Essais Techniques Hermillon	CTZ1	CFI5	71.971,75
Digue des Resses	DS03	CFI5	705.688,57
Bâtiment GA1	FA01	CFI5	553.998,77
Bâtiment FSA LH	FA02	CFI5	10.481.127,22
Bâtiment GA2	FA03	CFI5	579.569,95
Bâtiment PAI LH SJM	FA08	CFI5	2.738.808,03
Bâtiment PAI St Avre	FAY1	CFI5	1.032.797,86
Bâtiment FRET	FAY2	CFI5	562.640,95
Bâtiment PAI Hermillon	FAZ1	CFI5	281.014,65
PEM Transitoire	FV02	CFI5	7.361.288,99
Aménagements paysagers	IA01	CFI5	599.612,60
Installations de Gypse	IIZ1	CFI5	3.330.538,82
Signalisation SJM	IS01	CFI5	17.054.020,68
Signalisation St Avre	ISY1	CFI5	18.372.491,32
Signalisation Hermillon	ISZ1	CFI5	4.602.864,98
Passerelle Saint Avre	IVY1	CFI5	328.708,62
Sécurité et Logistique	SC01	CFI5	23.494.942,94
Quais à voyageurs secteur gare	QP01	CFI5	185.923,22
Pistes SJM	QP03	CFI5	11.078,20
Démolitions SJM	RA01	CFI5	1.682.998,39
Démolitions St Avre	RAY1	CFI5	490.481,46
Clôtures St Avre	RCY1	CFI5	611.746,88
Clôtures Hermillon	RCZ1	CFI5	138.881,49
Génie Civil réseaux Tiers	RE01	CFI5	2.342.307,36
Terrassement St Avre	RIY1	CFI5	10.505.150,47
Terrassement Hermillon	RIZ1	CFI5	3.391.441,98
Sous station électrique 1,5kV	SE01	CFI5	2.383.829,19



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TOTAL 2019-2022			224.217.633,45
Sub total PMC and assistance			38.392.962,00
Sub total TVX PHASE 1 ET 2A			185.824.671,45
Voiries Hermillon	VMZ1	CFI5	758.374,72
RD906 Est et RD81	VM08	CFI5	5.982.970,73
Pont Rail RD 906	VM07	CFI5	8.689.123,99
RD 1006 et giratoire RD 77	VM06	CFI5	46.655,66
Rue de la Bastille	VM04	CFI5	793.592,32
Pont-rail René Cassin	VM03	CFI5	2.813.819,48
Rue René Cassin	VM02	CFI5	301.948,43
Hermillon	TLZ1	CFI5	395.300,66
St Avre	TLY1	CFI5	592.983,44
SJM	TL01	CFI5	3.359.228,25
Traction électrique Hermillon	TEZ1	CFI5	396.564,49
EALE St Avre	TEY2	CFI5	2.010.211,18
Traction électrique St Avre	TEY1	CFI5	3.160.075,62
EALE SJM	TE02	CFI5	6.654.824,66
Traction électrique SJM	TE01	CFI5	1.149.640,57
Galerie technique Amoudon	SL04	CFI5	1.507.982,24
Galerie technique PAI	SL03	CFI5	2.890.371,01
Galerie technique Arvan	SL02	CFI5	883.899,61
Galerie technique René Cassin	SL01	CFI5	252.830,94
Hydraulique Hermillon	SHZ1	CFI5	61.567,68
Hydraulique St Avre	SHY1	CFI5	742.295,13
Traversée hydraulique des Roches Noires	SH04	CFI5	780.761,23
Ouvrage de décharge Est Arvan	SH03	CFI5	340.475,29
Ouvrage de décharge Ouest Arvan	SH02	CFI5	473.524,11



Activity 28 - ST JEAN DE MAURIENNE (TELT) (O.W.9C)

Description:

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.

	,
Milestone	Date
Tender notice publication for the civil works	31/07/2019
Closure of the tender (receipt of candidatures)	08/10/2019
Proposal of contract award sent to Contracts Commission	31/10/2020
Approval of contract award from TELT Board	15/12/2020
Contract award for designer PEM	10/02/2021
End of preparatory work with interventions on road RD 906	31/12/2022



Activity 29 - TRIMET AND VILLARGONDRAN DAMS (O.W.9D)

Description:

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:

- ✓ Reinforcement of the dyke by reinforcing the existing wall (by nailing on a line of about 500m).
- ✓ backfilling at the rear (creation of a platform (approximately 200,000m3) and
- √ laying of riprap (linear of about 800m);
- ✓ 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);
- ✓ rerouting and networking;
- ✓ relocation and re-creation of the Saint Jean de Maurienne/Villargondran/Saint Julien Montdenis water supply valve chamber;

Lot 2 works cover:

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

Milestone	Date
DCE sent to selected candidates	18/02/2019
Receipt of technical and financial bids from selected candidates ("lot 01")	01/04/2019
Proposal of contract award sent to Contracts Commission	08/06/2019
Reply from the Contract Commission	15/07/2019
Approval of contract award from TELT Board	15/09/2019
Signature of the contract ("lot 01")	06/09/2019
Start of work on worksite "lot 01"	08/10/2019
Start of networks works	15/10/2019
Start of shoreline protection works	02/12/2019
Start of backfill works	02/12/2019
Signature of the contract lot 02	31/05/2020
Completion of work "lot 01 and lot 02"	02/03/2021

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Activity 30 - ARC BRIDGE (O.W.9E)

Description:

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

Milestone	Date
Tender notice publication for the works supervision "MOE CO9E" civil works	30/04/2020
Proposal of contract award sent to Contracts Commission	30/04/2021
Signature of the contract	31/08/2021
End of detailed design of the Bridge	31/12/2022



Activity 31 - MANAGEMENT OF EXCAVATED MATERIALS - ITALY (O.W.10)

Description:

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 Salbrertrand 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 Salbrertrand.

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.

STM is composed by:

- Crusher
- Vibrating selector
- Silos
- Belt conveyors
- All the necessaries electrical and pneumatic components for automation including control software.

Milestone	Date
DCE sent to selected candidates	25/06/2019
Receipt of technical and financial bids from selected candidates	19/09/2019
Proposal of contract award sent to Contracts Commission	19/12/2019
Reply from the Contract Commission	03/02/2020
Approval of contract award from TELT Board	04/02/2020
PMC contract award	24/04/2020
Tender for main Works	01/07/2019



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Closure of the tender (receipt of candidatures)	25/09/2019
2.1 Approval of DCE and candidatures by CdC	25/09/2020
DCE sent to selected candidates	08/10/2020
Main works contract award	31/12/2021
Order of Selective treatment of materials machine (Salbertrand)	31/12/2022



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Activity 32 - MANAGEMENT OF EXCAVATED MATERIALS - FRANCE (O.W.11)

Description:

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
- · 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).

STM is composed by:

- Crusher
- Vibrating selector
- Silos
- Belt conveyors
- All the necessaries electrical and pneumatic components for automation including control software

Milestone	Date
DCE sent to selected candidates	16/07/2019
Receipt of technical and financial bids from selected candidates	21/10/2019
Proposal of contract award sent to Contracts Commission	28/02/2020
Reply from the Contract Commission	08/04/2020
Approval of contract award from TELT Board	06/10/2020
Signature of the contract	03/11/2020
Signature of convention for work for railway connection	01/09/2020
Start of work for "worksite preparation"	01/01/2021
Completion of work "worksite preparation"	30/06/2021



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Tender notice publication for the civil works CO11	15/04/2020
Closure of the tender (receipt of candidatures)	30/06/2020
DCE sent to selected candidates	31/01/2021
Main works contract award	15/01/2022
Order of Selective treatment of materials machine (Illaz and Modane)	01/03/2022
Start of construction of STM "Illaz" on worksite	31/12/2022

More information on excavated materials strategy (France and Italy):

The management of excavated materials (MATEX) is one of the most critical activity inside the construction of NLTL and it was decided to define a specific strategy for this mission to be implemented by a dedicated operative lot (lot 10- Italian side).

Main objective of the management strategy adopted for excavated materials is gaining the highest value by the natural resources produced during the excavation works. The availability of these resources represents an effective value for all parties involved such as TELT, environment and enterprises. Each one of them will benefit from this: TELT saving costs, the environment by reducing the demand of aggregates, the enterprises by higher efficiency of the material production chain. Even materials not adequate for concrete application will be available for environmental needs.

The basic idea is providing MATEX with a user classification index such as follows: Cl 1 are high quality material, to be used for concrete; Cl2 medium quality materials to be used for embankments; Cl3a are weak materials to put to storage or morphological modeling, and Cl3b are bad materials to be taken to landfill. According to this, all excavated materials will be deeply examined and used with the highest level of accuracy in the most profitable manner.

Detail design studies have been made both in France and Italy since "reference project" has been completed. In Italy, studies have been done to determine the proper value of coefficient of re-use to be adopted for excavated materials. Construction of Maddalena exploratory tunnel and related costs (completed in 2017) has provided specifics information on nature and resistance of the rock which have been included in the latest version of reference project (approved in 2018). The result is the confirmation that adopting a coefficient of reuse approximately equal to 0,65 is possible, and moreover that a high enhancement of excavated materials is a great chance, not only for this project but also for any other project of this type coming in the next future.

Moreover, 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. In fact, the integration with railway transports to be used to carry not usable materials to their final destination (Caprie e Torrazza) complete the transport approach with a very performing solution.

Following the beginning of excavating operations, MATEX (EXcavated MATerials) coming from all outdoor and underground constructions sites (Maddalena 2 e 1 bis tunnels, Connection 1 e 2, Base & 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.

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Activity 33 - ENGINEERING AND OTHER COSTS NOT INCLUDED IN OTHER O.W.

Description:

This activity concerns services, studies and works that are not directly linkable at the different operational worksites, such as:

- 1. Engineering functional studies related to transport, traffic, security, ...;
- 2. Engineering technical studies or audit aimed at checking the engineer (MOE) and the sub-contractors design and planning;
- 3. Technical environmental studies and monitoring.

Milestone	
Edition of annual report from TELT for 2019	31/12/2019
Edition of annual report from TELT for 2020	31/12/2020
Edition of annual report from TELT for 2021	31/12/2021
Edition of annual report from TELT for 2022	31/12/2022
Signature of the contract for the coordination of security during execution on the French side (value of the global contract 4,9 M€)	24/07/2018
Signature of the contract for the preparation of the executive project of environmental monitoring on the Italian side (value of the global contract 0,92 M€)	29/01/2019
Signature of the contract for the ante operam environmental monitoring and the water law on the French side (value of the global contract 5,3 M€)	06/03/2019
Signature of the contract for the engineering technical studies or audit aimed at checking the engineer (MOE) and the sub-contractors design and planning (value of the global contract 25 M€)	19/06/2019
Signature of the contract for the execution of the environmental monitoring plan ante operam, in course of work and post operam on the Italian side (estimated value of the global contract 37 M \in)	12/05/2020
Signature of the contract for the coordination of security during execution on the Italian side (estimated value of the global contract 9,8 M \in)	30/05/2020
Signature of the contract for the environmental coordination of the activities on the Italian side (estimated value of the global contract 3 M€)	15/07/2020
Agreement for the studies for the creation of an electrical substation for the supply of rail traction in the middle of the base tunnel – Interm. phase report	31/12/2022
Agreement for the studies for the creation of an electrical substation for the supply of rail traction at the entranceof the base tunnel – Interm. phase report	31/12/2022



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Breakdown per activity of estimated eligible costs of the action

Activity	o.w.	ACTIVITY DESCRIPTION	2014-2018	2019-2022	TOTAL
1		PROJECT MANAGEMENT FOR STUDIES COMPONENT	37,78	0,00	37,78
2		MONITORING AND FOLLOW-UP THE DESCENDING SHAFTS.	2,17	1,48	3,65
3		EXPLORATORY TUNNEL OF LA MADDELENA	40,25	1,28	41,53
4		EXPLORATORY WORK FROM THE FOOT OF THE SAINT-MARTIN-LA-PORTE ACCESS TUNNELS	208,88	163,31	372,18
5		FINAL MODIFICATIONS OF THE REFERENCE PROJECT	21,43	1,03	22,46
6		PROJECT MANAGEMENT FOR WORKS COMPONENT	19,61	132,78	152,39
7		RELEASE OF THE LAND ACQUIRED FOR PUBLIC PURPOSES AND DEMOLITIONS	1,08	7,21	8,29
8		UTILITIES DIVERSIONS IN FRANCE	5,99	21,02	27,01
9		UTILITIES DIVERSIONS IN ITALY	0,00	7,14	7,14
10	0.W. 4C	BASE TUNNEL: MADDALENA AND CHIOMONTE INTERCHANGE: Chiomonte Interchange	0,02	82,79	82,81
11	0.W. 2C	OUTDOOR WORKS ITALY: New Autoport (Convention - O.W. 2C	0,03	70,14	70,18
12	O.W. 2D	OUTDOOR WORKS ITALY: New « safe driving » track (Convention	0,00	0,32	0,32
13	0.W. 1	INTERCONNECTION TUNNEL SUSA BUSSOLENO	0,00	0,40	0,40
14		ELECTRIC CONNECTION FOR ITALIAN WORKSITES	0,00	5,58	5,58
15	O.W. 5A	BASE TUNNEL: MADDALENA AND AVRIEUX SHAFTS: Avrieux Shaft	0,61	167,83	168,44
16	O.W. 9A	OUTDOOR WORKS FRANCE: Villard Clément cut and cover	0,31	39,47	39,78
17		ELECTRIC CONNECTION FOR FRENCH WORKSITES	3,03	27,36	30,39
18		MAIN CIVIL WORKS	1,97	0,00	1,97
19	O.W. 2A	OUTDOOR WORKS ITALY: Susa Plain	0,00	1,28	1,28
20	O.W. 2E	OUTDOOR WORKS ITALY: Info point Henry Barrack	0,00	0,14	0,14
21	O.W. 3-4	BASE TUNNEL: MADDALENA - SUSA	0,00	49,86	49,86
22	O.W. 4A	BASE TUNNEL: MADDALENA AND CHIOMONTE INTERCHANGE: Maddalena interconnecting Niches	0,00	43,07	43,07
23	0.W. 5	BASE TUNNEL: MADDALENA AND AVRIEUX SHAFTS: Base Tunnel: Modane and Maddalena	0,00	101,83	101,83
24	O.W. 6	BASE TUNNEL: LA PRAZ - MODANE	0,00	164,67	164,67
25	0.W. 7	BASE TUNNEL: ST MARTIN LA PORTE - LA PRAZ	0,00	52,83	52,83
26	O.W. 8	ST JULIEN MT DENIS (WEST ENTRANCE) - SMP	0,00	73,09	73,09
27	O.W. 9B	OUTDOOR WORKS FRANCE: St. Jean de Maurienne	9,11	224,23	233,34
28	0.W. 9C	OUTDOOR WORKS FRANCE: St. Jean de Maurienne (TELT)	0,00	3,13	3,13
29	O.W. 9D	OUTDOOR WORKS FRANCE: Trimet and Villargondran dams	0,00	10,34	10,34
30	O.W. 9E	OUTDOOR WORKS FRANCE: ARC Bridge	0,00	0,68	0,68
31	0.W. 10	MANAGEMENT OF EXCAVATED MATERIALS - ITALY	0,00	24,70	24,70
32	0.W. 11	MANAGEMENT OF EXCAVATED MATERIALS - FRANCE	0,00	44,54	44,54
33	-	ENGINEERING AND OTHER COSTS NOT INCLUDED IN OTHER O.W.	0,00	39,27	39,27
		TOTAL	352,27	1 562,78	1 915,05



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In coherence with the Grant Agreement financial statement, figures are presented using the same hypothesis and assumptions, namely forecasted amount are based on euro 2012 values revaluated by 1,5% yearly.

Act	o.w.	ACTIVITY DESCRIPTION	19-22	РМС	PE	SITE	TBMs/WURM	CONV	MEC
22	O.W. 3- 4	BASE TUNNEL: MADDALENA - SUSA	49,86	2,2	3,9	10,6	27,9	5,3	0,0
23	O.W. 4A	BASE TUNNEL: MADDALENA AND CHIOMONTE INTERCHANGE: Maddalena interconnecting Niches	43,07	1,6	0,7	9,2		31,5	
24	O.W. 5	BASE TUNNEL: MADDALENA AND AVRIEUX SHAFTS: Base Tunnel: Modane and Maddalena	101,83	2,4	10,5	5,3	68,9	14,8	0,0
25	O.W. 6	BASE TUNNEL: LA PRAZ - MODANE	164,67	4,0	3,0	17,1	51,5	89,1	0,0
26	O.W. 7	BASE TUNNEL: ST MARTIN LA PORTE - LA PRAZ	52,83	0,4	0,8	12,5	26,9	12,2	0,0
27	O.W. 8	ST JULIEN MT DENIS (WEST ENTRANCE) - SMP	73,09	5,8	1,1	15,5	0,0	50,7	0,0
		TOTAL	485,34	16,4	20,0	70,1	175,2	203,6	0,0

PMC: project management construction

PE: detail design/execution studies

SITE: work site preparation

TBM: purchase of TBMs

CONV: excavation with conventional method

MEC: excavation with TBM

Post Scriptum: activities 28-31 are not concerned.