# Analysis of the new Lyon-Turin railway project and the treaties engaging France and Italy after the M5S/Lega government agreement in Italy

The situation resulting from the elections and the new government in Italy, raises the question on how the government agreement between the « five star movement » (M5S) and « La Lega » should be interpreted

The agreement between the two political parties must be thoroughly examined and cannot be quickly interpreted in one way or another, as the willingness to stop or on the contrary to continue the disputed project.

The agreement includes the following text :

« Con riguardo alla Linea ad Alta Velocità Torino-Lione, ci impegniamo a ridiscuterne integralmente il progetto nell'applicazione dell'accordo tra Italia e Francia. »

The translation in english is : « *as far as the high speed Turin-Lyon railway is concerned, we commit to fully rediscuss the project in compliance with agreement between France and Italy.* »

As such, the agreement does not mention any other intention than rediscussing the project, keeping in mind the obligations resulting from the existing treaties between France and Italy. This agreement can be seen as a close relative to the « pause » (« on hold ») which was announced in July 2017 by the French goverment and confirmed in the final declaration of the 34th summit between France and Italy, that took place in Lyon on september 27<sup>th</sup>, 2017.

The commitments between our two countries come from the signature and ratifications by France and Italy of various agreements between both governments. The main agreements are the following :

- 29<sup>th</sup> of January 2001 agreement
- 5<sup>th</sup> of May memorandum and 3rd of december agreement
- 30<sup>th</sup> of January 2012 agreement
- additionnal letters dated 24<sup>th</sup> of February 2015 and 8<sup>th</sup> of March 2016

The present note analyses the following items :

- 1. what is covered by the existing Franco-Italian agreements
- 2. the questions raised by the project funding
- 3. forecasts
- 4. conclusion

## 1/ Commitments of both parties

It has been defined in the first article of the 29<sup>th</sup> of January 2001 agreement :

« the French and Italian governments **commit in the present agreement to build or have build the section common to France and Italy**, necessary to the new railway for both passengers and freight between Lyon and Turin which **operation should start at the date when the existing railway reaches saturation** »

Analysis of the Lyon-Turin project and of the regarding treaties

As a consequence of this article, which has not been modified by later agreements, the commitment concerns the construction and the timing of the « common section ». The date, which can be interpreted as the date of completion, should be the date of saturation of the existing infrastructure.

As of January 29<sup>th</sup> 2001, date of the agreement signature, the « common section » is restricted to the definition done in articles 2 (ii) and 3 of the same agreement :

Article 2 (ii) the Franco-Italian common section, between the closest connection to the historical line on each side of the border in the vicinity of St Jean de Maurienne in France and Bussoleno/Bruzolo in Italy

Article 3 (ii) Franco-Italian common section

(a) The Franco-Italian common section of the new railway Lyon-Turin consists of
(i) a twin tube tunnel, approximately 52 kilometer long, including an underground safety and service station in Modane, dug under the Alps in both French and Italian terrirories,
(ii) in Italy the works connecting the base tunnel to the historical line and to the future new line near Bussoleno/Bruzolo

(iii) as well as all required additionnal works (train stations, electrical installations ..) necessary to the railway operation and those, which both governments would later jointly agree to include in this Franco-Italian common section

(b) these works must be built in functionnal « slices »

Therefore, the commitment to build the « common section », consists only of the base tunnel and the functional facilities, but both governments left the possibility opened to include additionnal parts later.

This possibility has been used in the agreement signed on January 30<sup>th</sup> 2012, which did not change the commitment to build the « common section » but instead significantly modified its content. Article 28 of the January 30<sup>th</sup> 2012 agreement states that the present agreement repeals the previous agreement clauses if they contradict the new agreement clauses.

The January 30<sup>th</sup> 2012 agreement does not modify article 1 of the January 29<sup>th</sup> 2001 agreement. France and Italy remain committed to build or have build the common section of the project for a new Lyon-Turin railway with a start of operation when the existing railway reaches saturation »

Nonetheless, the common section is redefined as follows in articles 2 and 4 :

## Article 2

 la partie commune franco-italienne, entre les environs de Montmélian, en France, et de Chiusa S. Michele, en Italie (ci-après « la partie commune franco-italienne »);

The Franco-Italian common section, between the area of Montmélian, in France and of Chiusa S.Michele in Italy (hereafter, « the Franco-Italian common section »

#### Article 4

#### Partie commune franco-italienne

La partie commune franco-italienne de la nouvelle liaison ferroviaire Lyon-Turin est composée, suivant le plan figurant en annexe I au présent Accord (cette annexe faisant partie intégrante du présent Accord) :

- *a)* En France, d'une section de 33 kilomètres environ franchissant le massif de Belledonne et comprenant les tunnels à double tube de Belledonne et du Glandon ;
- b) D'un tunnel à double tube de 57 kilomètres environ entre Saint-Jean-de-Maurienne, en France, et Suse-Bussoleno, en Italie, creusé dans les Alpes, sur les territoires français et italien et incluant trois sites de sécurité à La Praz, Modane et Clarea;
- c) D'une section à l'air libre d'environ 3 kilomètres en territoire italien à Suse ;
- d) D'un tunnel à double tube d'environ 19,5 kilomètres situé sur le territoire italien entre Suse et Chiusa S. Michele;
- e) En France et en Italie, des ouvrages de raccordement à la ligne historique ;
- f) Ainsi que des ouvrages annexes (gares, installations électriques, etc.) nécessaires à l'exploitation ferroviaire et de ceux dont les Parties conviendraient ultérieurement qu'ils doivent être inclus dans cette partie commune franco-italienne.

Ces ouvrages seront réalisés en plusieurs phases fonctionnelles.

Dans une première phase, objet du présent Accord, sera réalisée la section transfrontalière, incluant les gares de Saint-Jean-de-Maurienne et de Suse, ainsi que les raccordements aux lignes actuelles conformément au plan annexé.

En complément, Rete Ferroviaria Italiana (ci-après « RFI ») réalisera des travaux d'amélioration de la capacité sur la ligne historique entre Avigliana et Bussoleno.

La consistance des phases suivantes sera définie par les Parties dans le cadre d'accords ultérieurs.

### Article 4

Franco-Italian Common section

*The Franco-Italian common section of the new railway Lyon-Turin is composed, as indicated in annex 1 of the present agreement (this annex belongs to the present agreement) :* 

a) In France, of a section approximately 33 kilometer long across Belledonne massif including twin tube tunnels of Belledonne and Glandon ;

b) of a twin tube tunnel, dug under the Alps in both French and Italian territories, approximately 57 kilometer long between the area of Saint-Jean de Maurienne in France and Suse-Bussoleno in Italy, including three safety sites in La Praz, Modane and Clarea;

c) of 3 kilometer long section in the open air, in Italian territory in Suse ;

d) of a twin tube tunnel, approximately 19.5 kilometer long, located in Italian territory between Suse and Chiusa S. Michele ;

e) In France and in Italy, of works connecting to the historical line;

f) as well as all required additionnal works (train stations, electrical installations ...) necessary to the railway operation and those, which both governments would later jointly agree to include in this Franco-Italian common section

*These works will be built in multiple functional phases.* 

In a first phase, object of the present agreement, the international section will be built, including St Jean de Maurienne and Suse train stations, and the connecting works to the existing lines as depicted in the map enclosed in annex.

In addition, Rete Ferroviaria Italiana (here after « RFI ») will conduct capacity improvement of the historical line between Avigliana and Bussoleno.

The content of later phases will be defined in subsequent agreements by both parties.

The commitment of France is therefore modified, by 5 more kilometers for the twin tube base tunnel and by an additionnal section of approximately 33 kilometer twin tube tunnel under Belledonne massif to reach St Jean de Maurienne.

Each different phase of the project still must be functional.

The commitment of Italy is also modified, by 5 more kilometers for the twin tube base tunnel and by an additionnal section of approximately 19.5 kilometer twin tube tunnel between Avigliana and Bussoleno.

As described above, the commitment of France in the making of the « common section » increased more than the commitment of Italy (33 kilometers Vs 19.5 kilometers of twin tube tunnel, and an upgrade of the existing line).

The financing of these additional commitments is defined in article 16 of the same agreement

Pour la première phase, concernant la réalisation de la section transfrontalière, les modalités de financement sont précisées à l'article 18 du présent Accord. Pour les phases suivantes, chaque Partie finance, avec l'aide de l'Union européenne, les infrastructures situées

Pour les phases suivantes, chaque Partie finance, avec l'aide de l'Union européenne, les infrastructures situées sur son territoire.

In the first phase, as far as the making of the cross-border section is concerned, the funding arrangements are defined in article 18 of the present agreement.

As far as the later phases are concerned, each party finances, with the help of the European Union, the infrastructures located in its territory.

According to these provisions, the cross-border tunnel will be jointly financed; the sections of 33 kilometers in France and 19.5 kilometers in Italy will be built under the responsibility of each country; each of them dealing separately in order to get EU funding.

The French Ministry of Equipment, responding to a deputy's question, explained on may 12<sup>th</sup> 2004 before the French national assembly, the reason why the commitment of France was greater than the one from Italy

http://www.assemblee-nationale.fr/12/cri/2003-2004/20040215.asp

## M. Michel Bouvard.

Mr Minister of Equipment, Transport and Territory Development, last Wednesday, in the presence of the Prime Minister and the President of the Italian Council, a memorandum was signed concerning the funding sharing of the Lyon-Turin railway project.

I would like you to clarify the content of this agreement and to tell us if it allows us to comply to the timetable provided by Bruxells.

Furthermore, can you tell us where the establishment of the agency in charge of financing infrastructure stands, whose creation was decided on December 18th at the interministerial committee for Territory Development?

I remind you that this agency, intended to collect the dividends of motorway companies - 7.5 billion euros from 2004 to 2012 - must finance this project, as well as thirty-six other infrastructure projects, which are planned in our country and can contribute to the economic recovery, directly and indirectly

**M. Gilles de Robien,** *Minister of Equipment, Transport, Territory Development, Tourism and the Sea* 

Mr deputy, I confirm that, last week, in the presence of the Prime Minister and of Mr Berlusconi, I signed with Mr Pietro Lunardi, Italian Minister of Transportation, the financing agreement concerning the Lyon-Turin link.

This great event is the achievement of a rough discussion which required over seven meetings. This discussion started on the basis of 65% for France and 35% for Italy and ended up with a 50/50 split. The split varies section by section, since two are national sections, two are international and one, the great tunnel you know is a common section.

This is a 13 billion euros project. I add that we set two conditions to its completion. Firstly, European funding must be 20% of the total amount, i.e. 2.6 billions. Secondly, the project must be an alternative to road transportation and lead to the actual transfer on railways.

As far as financing is concerned, we are credible since the agency destined to collect the dividends of the motorway companies, the creation of which has been decided during the CIADT of last december and which will be implemented as soon as 2004, will allow us to finance, in 2005, not only the start of the works on the Lyon-Turin link, but also all the other infrastructure projects that were selected under the presidence of the Prime Minister on december 18th 2003.

The Ministry of Equipment confirms that the commitment which will be taken by France to build 33 kilometers must be seen as a counterparty for an even financing of the overall project.

The commitment of France to build or have build the various phases of the common section must be seen with the intent to split financing evenly between the two countries.

## 2/ Financing

Treaties must also be analyzed in their provisions dealing with the financing arrangements:

- Costs split between parties,
- Availability of the financing and the effect of the Italian law "non functional constructive lots",
- EU funding,
- Consequences of budget overrun,
- Financial risks incurred by France.

It is important to remind that the public inquiry for French access to the cross-border base tunnel, which took place from January 16<sup>th</sup> to March 19<sup>th</sup>, 2012 and which led to the decree of public usefulness of August 23<sup>rd</sup> 2013, only includes a single-tube tunnel for the Belledonne Glandon section. The French government has therefore committed to the construction of a twin tube tunnel, and the Parliament also, without consulting the population in a public inquiry.

## 2.a/ Cost sharing between the two countries.

Costs are shared according to what is defined in article 18 of the  $30^{\text{th}}$  of January 2012 agreement. This agreement refers to the provisions of the december  $3^{\text{rd}}$  2004 agreement, following the principles set in the Memorandum of May  $5^{\text{th}}$ , 2004 :

### Article 18

Financement du Promoteur public et de la réalisation de la section transfrontalière

Déduction faite de la contribution de l'Union européenne et de la part financée par les péages versés par les entreprises ferroviaires, pour les coûts de la première phase, la clef de répartition retenue s'établit à 42,1 % pour la Partie française et à 57,9 % pour la Partie italienne, dans la limite du coût estimé au stade du projet, certifié par un tiers extérieur. Au-delà de ce coût certifié, les coûts sont répartis à parts égales entre la Partie française et la Partie italienne.

## Article 18

Funding of the public constructing company and of the construction of the cross-border section

Excluding both the EU grant and the amount financed by the railway tolls, the cost for the first phase is shared based on 42.1 % for France and 57.9 % for Italy, within the limit of the cost estimated in the project phase, certified by a third party. Beyond this certified cost, the costs are evenly split between France and Italy.

It should be pointed out that the base tunnel would include 45 kilometers in French territory and 12.5 kilometers in Italian territory. In addition to the financing of the European Union, Italy pays each

kilometer in Italian territory at a much higher price than the one paid by France for every kilometer in French territory.

The counterparty of the disproportion in the financing of the base tunnel (first phase of the common section) lies in France's commitment to Italy to build at its own expense the 33-kilometer twin-tube tunnels under Belledonne massif leading to the base tunnel.

Italy can therefore demand that the parity of the commitments be effective by requiring the construction of the 33 kilometer long twin-tube tunnel or, failing that, its participation in the financing of the cross-border tunnel be reduced and, if appropriate, with a clause of return to better fortune in the event of subsequent realization by France of this section.

According to the combined provisions of the memorandum of May 5<sup>th</sup>, 2004, the agreements of December 3<sup>rd</sup>, 2004 and January 30<sup>th</sup>, 2012, based on TELT's projected costs of EUR 8.6 billion, the breakdown between the two countries is the following

Cross-border bas	e tunnel total cost sh	aring and cost per ki	lometer	
	France	Italy		
	42.1%/45km	57.9%/12,5km	EUROPE 40%	TOTAL
Entire Tunnel	2 172 360 000 €	2 987 640 000 €	3 440 000 000 €	8 600 000 000 €
Cost per km	48 274 666.67 €	239 011 200.0 €	60 350 877.19 €	

For the whole tunnel, the cost for Italy is about 800 million euros higher than the cost for France. Comparing the price per kilometer in each country, the price is about five times higher in Italy than the price in France for each kilometer.

A breakdown of costs based on the distance built on the territory of each country would lead to the following split:

Cross-border bas	e tunnel cost shared	on a cost per kilome	ter basis	
	France 45km/57,5km	Italy 12,5km/57,5km	EUROPE 40%	TOTAL
Entire Tunnel	4 038 260 870 €	1 121 739 130 €	3 440 000 000 €	8 600 000 000 €
Cost per km	89 739 130 €	89 739 130 €	60 350 877.19 €	

Such a cost sharing would lead to an increase in France's funding of approximately 1.8 billion euros.

An even split of the base tunnel cost for each country, assuming equal service without taking into account to construction in each territory, would lead each party to finance 2,580 billion euros, i.e. more than 400 million euro increase for France.

This analysis must be taken into account prior to take any decision to start the definitive works which would then be interpreted as the execution of the commitment with all its effects including the counterparties.

For the record, it should be reminded that the public inquiry file for the base tunnel in 2006, plans simultaneous making and start of operation of the French access and the cross-border tunnel.

This decisive element must be put into perspective today with the conclusions of the Orientation Council for Infrastructures handed over to the Minister of Transport on February  $1^{rst}$ , 2018 in which he declares that "*He considers that the demonstration was not made of the urgency of undertaking such constructions, the socio-economic characteristics of which are clearly unfavorable at this stage.*" and" *It seems unlikely that, before ten years, there is room for further studies of these works which, at best will be started after 2038.* "

The sentence of the government agreement between the two Italian parties M5S and Lega pledging to "*rediscuss the entire project in application of the agreement between Italy and France*" finds here its meaning, especially in a rebalancing of the financing by each country, taking into account the actual progress of the project.

<b>2.b</b> /	Availability	of	funding	prior	to	starting	the	final	works.
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The agreement of January 30<sup>th</sup>, 2012 defines precisely the financial conditions prior to the launching of the final works:

Article 16

#### Principes

Le présent titre a pour but de préciser les modalités de financement entre les Parties des prestations réalisées pendant la construction des ouvrages définitifs de la partie commune franco-italienne.

La disponibilité du financement sera un préalable au lancement des travaux des différentes phases de la partie commune franco-italienne de la section internationale. Les Parties solliciteront l'Union européenne pour obtenir une subvention au taux maximum possible pour ces réalisations.

Par ailleurs, les Parties souhaitent que les principes de tarification de la ligne ferroviaire entre Lyon et Turin tiennent compte, sur chaque section, de l'utilité retirée de leur réalisation par les entreprises ferroviaires et permettent ainsi à la fois d'augmenter l'utilité de l'ouvrage pour les deux Etats, mais également d'augmenter la capacité d'autofinancement des différents ouvrages.

Pour la première phase, concernant la réalisation de la section transfrontalière, les modalités de financement sont précisées à l'article 18 du présent Accord.

Pour les phases suivantes, chaque Partie finance, avec l'aide de l'Union européenne, les infrastructures situées sur son territoire.

Article 16 Principles

The purpose of this title is to specify the financing arrangements between parties for the services provided during the construction of the final works of the French-Italian common section.

The availability of funding will be a prerequisite for launching the work of the various phases of the Franco-Italian common section of the international section. The Parties will apply for European Union funding at the maximum possible rate for these works.

In addition, the parties wish that the charging principles of the railway between Lyon and Turin take into account the usefulness of each section for the railway companies, thus making it possible to both increase the usefulness of the works for the two countries and the self-financing capacity of the various works.

Regarding the first phase, concerning the implementation of the cross-border section, the financing arrangements are specified in Article 18 of the present agreement.

For the next phases, each party finances, with the help of the European Union, the infrastructures located on its territory.

The base tunnel is in itself a functional phase defined as "first phase".

Article 4 of the agreement of January 30<sup>th</sup>, 2012 defines and imposes the criteria of functionality for the making of each phase:

Ces ouvrages seront réalisés en plusieurs phases fonctionnelles. Dans une première phase, objet du présent Accord, sera réalisée la section transfrontalière, incluant les gares de Saint-Jean-de-Maurienne et de Suse, ainsi que les raccordements aux lignes actuelles conformément au plan annexé.

These structures will be built in several functional phases.

In a first phase, object of the present Agreement, will be carried out the cross-border section, including the train stations of Saint-Jean-de-Maurienne and Susa, as well as the connections to the existing lines as described in the annexed map.

The combination of the provisions in articles 4 and 16 of the agreement of January 30<sup>th</sup>, 2012 does not authorize to start the final works of a functional phase without prior availability of funding.

In other words, the commitment authorization must exist for the entire financing of the functional phase, before starting the final works.

To get around this "obstacle" Italy seems to be willing to set up a system using an Italian law called "constructive non-functional lots".

It is clearly stated in the "Final Declaration of the Franco-Italian Summit of 27 September 2017":

## 1. Le Projet de liaison ferroviaire Lyon-Turin

La France et l'Italie confirment l'importance stratégique de la section transfrontalière de la ligne ferroviaire Lyon-Turin, qui fait partie des réseaux trans-européens de transport et dont la réalisation repose sur des accords internationaux. Les deux Etats soulignent que les travaux préliminaires sont désormais en voie d'achèvement et que le lancement des travaux ultérieurs, notamment pour la réalisation du tunnel de base est en préparation.

Sa dimension stratégique pour la France, l'Italie et l'Europe, en tant que composante fondamentale du corridor méditerranéen des réseaux trans-européens, et notamment les engagements internationaux pris, constitueront un critère important dans la réflexion que la France mènera à l'égard de l'ensemble de ses grands projets d'infrastructure, et dans les décisions qui seront prises par la France au plus tard au 1<sup>er</sup> trimestre 2018, en pleine association avec le Gouvernement italien et la Commission européenne.

Dans ce cadre, les deux États conviennent de mettre en place un groupe de travail entre les deux Ministères, en lien avec le coordinateur européen pour le corridor Méditerranée, avec l'objectif de faire conjointement des propositions concrètes d'ici la fin de l'année, en examinant (i) les montages envisagés côté français et (ii) les conséquences de l'application de la loi italienne dite « des lots constructifs » à la section transfrontalière, dans la perspective de la réalisation du projet.

## 1- The Lyon-Turin railway project

France and Italy confirm the strategic importance of the cross-border section of the line Lyon-Turin, which is part of the trans-European transport networks and whose implementation is based on international agreements. Both countries emphasize that the preliminary work is now near completion and the launch of further work, particularly for the building of the base tunnel is being prepared.

Its strategic dimension for France, Italy and Europe, as a fundamental component of the Mediterranean corridor of trans-European networks, as well as the commitments made, will constitute an important criteria in the examination that France will conduct for all of its major infrastructure projects, and in the decisions that will be made by France at the latest in the first quarter of 2018, in full association with the Italian Government and the European Commission.

In this framework, the two countries agree to set up a working group between the two Ministries, in liaison with the European Coordinator for the Mediterranean Corridor, aiming at jointly making concrete proposals by the end of the year, by examining in the perspective of the project (i) the arrangements considered on the French side and (ii) the consequences of the application of the Italian law "constructive lots" for the cross-border section.

It also clearly appears in the deliberations published by the Italian Government Presidency:

## Articolazione dei Lotti Costruttivi

Primo Lotto Costruttivo (Lotto 1) Tunnel di base

Il primo Lotto costruttivo (Lotto 1), non funzionale, della fase di realizzazione delle opere principali

Secondo Lotto Costruttivo (Lotto 2) Opere all'aperto Francia

Il secondo Lotto costruttivo, non funzionale, della fase di realizzazione delle opere principali prevede l'attuazione dei seguenti interventi relativi all'esecuzione dei lavori all'aperto sul versante

Terzo Lotto Costruttivo (Lotto 3) Tunnel di base (Completamento)

Il terzo Lotto costruttivo (Lotto 3), non funzionale, della fase di realizzazione delle opere principali prevede il completamento delle opere civili del tunnel di base in Francia ed in Italia (secondo quanto rappresentato nella precedente Tabella 4), e precisamente:

Quarto Lotto Costruttivo (Lotto 4) Opere all'aperto Italia

Il quarto Lotto costruttivo, non funzionale, della fase di realizzazione delle opere principali prevede l'attuazione degli interventi di seguito elencati, relativi alla esecuzione dei lavori all'aperto in Italia.

## http://presidenza.governo.it/osservatorio\_torino\_lione/PDF/CIPE/Allegato 1 delibera CIPE 67.pdf

A political personality, highly involved (both at the national and local levels) in the Lyon-Turin topic since the beginning, is aware of the workaround of these provisions.

In a right of reply addressed to a regional publication, within the framework of the legal provisions of the law, he wrote the following text published in the local press:

"The works of Saint-Martin are indeed part of the final works which were tipped over to the reconnaissance work to allow the execution as soon as possible and to benefit from the financing of 50% of this work by the 'European Union. "

This perfectly explicit and claimed wording, in the form of a right of reply, demonstrates a desire to launch the final works, while disregarding the strict provisions of Articles 4 and 16 of the Agreement of January 30<sup>th</sup> 2012 and may possibly be a fraud of the European Union financing rules.

The purpose of this organization is obviously to create irreversible conditions in order to undertake the final works in breach of the rules governing the commitment of public financing, as the report of the Court of Auditors in October 2014 rightly recalled.

In this context, the sentence of the government agreement between the two Italian political parties echoes with the French position on the "pause" (« on hold ») and calls for a careful reading of the respective provisions and commitments of France and Italy.

In the event of an appeal for arbitration at the request of Italy, there is a risk of a substantial increase in the cost for France, and a new allocation of costs by the Arbitral Court, for lack of knowledge of the reasons set out in the Memorandum of May 5<sup>th</sup>, 2004, taking into account the number of kilometers in the territory of each country.

## 2.c/ Funding by the European Union

It is generally accepted that the European Union finances 50% of the study and reconnaissance work and 40% of the final works of the project.

It is important to clarify the commitments of the European Union even though, as the Minister of Transport reminded the Senators, there may be a certain leeway in applying the rules for awarding funding.

In order to identify the European rules, it is important to underline the first one: "Either you use it, or you lose it", which was reminded by Mrs Violeta Bulc, transport commissioner, in her mail of January 17<sup>th</sup> 2018 to Members of the European Parliament.

Using this rule, the funding of  $\in$  671,800,000, granted by Decision C (2008) 7733 of December 5<sup>th</sup>, 2008, was reduced by Decision C (2013) 1376 of March 5<sup>th</sup> 2013 to  $\in$  395,282,150, which was a loss of European funding of nearly  $\in$  276 million for the project.

In her letter Mrs Violeta Bulc also confirms that there is currently no funding from the European Union after 31 December 2019.



Ref. Ares(2018)288205 - 17/01/2018



Brussels, JF/ Ares(2013)

#### VIOLETA BULC Member of the European Commission

Mr Marco VALLI Member of the European Parliament

Mrs Daniela AIUTO Member of the European Parliament

Mrs Tiziana BEGHIN Member of the European Parliament

Mrs Eleonora EVI Member of the European Parliament

European Parliament – ASP07H241 60, Rue Wiertz 1047 Brussels

Honourable Members,

Thank you for your letter dated 22 November 2017 concerning the cross-border section of the new railway link Lyon-Turin.

The EU co-funding of the Lyon-Turin project has been agreed and is secured for the period 2016-2019. As is the case with all CEF funding only activities actually carried out within this period are eligible to be co-financed. The Commission services are in regular contact with the beneficiaries and the project promoter in order to assess the progress of the project including the absorption of EU funds allocated in accordance with the respective grant agreement. In 2018 the Commission services will carry out a review of the various projects in order to assess whether funds previously allocated will actually be used, studying carefully project by project all actions and milestones and the possible use within this MFF period, leading to an optimal use of the CEF instrument. As you know, it may ultimately lead to a reallocation to other projects pursuant to the "use-it-or-lose-it" principle.

Rue de la Loi/Wetstraat 200 B - 1049 Brussels - Tel.: +32-2-295 56 25 E-Mail: violeta.bulc@ec.europa.eu Finally, the conditions for France and Italy to get European grants for the Lyon-Turin project were reminded in December 2012 by the former European Commissioner for Transport, Mr Sim Kallas in an interview with AFP:

https://www.20minutes.fr/economie/1057725-20121204-mise-garde-bruxelles-financement-lgv-lyon-turin

"A 40% co-funding could come from the European budget, but it relies on a very strong support from French and Italian leaders to the + Connecting Europe Facility +"

We can see a link between this requirement and the flexibility of the European rule in the decision of March 5th, 2013, three months after this statement.

The availability of funding prior to starting the final works must be assessed in the light of the availability of European funding.

The lack of enthusiasm of the Italian government appointed on June 1<sup>rst</sup>, 2018, to participate in an increased European budget, also questions future funding capabilities.

Based on the different public statements, we can conclude that the expected 40 % European funding is not secured for the entire functional phase of the cross-border base tunnel.

Lastly, we must acknowledge the European funding situation, given the BREXIT, which has the consequence of losing a positive contributor to the European budget.

All of these elements justify the commitment to "fully rediscuss the project in compliance with agreement between France and Italy."

## 2.d/ Consequences of exceeding the budget based on the certified cost.

Article 18 of the agreement of January 30<sup>th</sup>, 2012, defines the consequences of the budget overrun. The financial distribution of budget overruns is assessed against the certified cost provided for in the same article:

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	Article 18	
	Financement du Promoteur public et de la réalisation de la section transfrontalière	
entreprises ferroviait Partie française et à	e la contribution de l'Union européenne et de la part financée par les j res, pour les coûts de la première phase, la clef de répartition retenue s'ét 57,9 % pour la Partie italienne, dans la limite du coût estimé au stade du elà de ce coût certifié, les coûts sont répartis à parts égales entre la Partie	ablit à 42,1 % pour la projet, certifié par ur

Par exception, les acquisitions foncières, les déviations de réseaux et les mesures d'accompagnement sont prises en charge par chacune des Parties sur son territoire.

Dans la limite de l'estimation des travaux d'amélioration de la capacité sur la ligne historique entre Avigliana et Bussoleno réalisée par LTF dans son étude de phasage de la partie commune franco-italienne, soit 81 M€, le financement de ces travaux est assuré dans le cadre global du financement de la première phase. Les surcoûts éventuels sont pris en charge en totalité par la Partie italienne.

## Article 18

Funding of the public constructing company and of the construction of the cross-border section *Excluding both the EU funding and the amount financed by the railway tolls, the cost of the first phase is shared based on 42.1 % for France and 57.9 % for Italy, within the limit of the cost estimated in the project phase, certified by a third party.* Beyond this certified cost, the costs are evenly split between France and Italy.

As an exception, land acquisitions, network deviations and accompanying measures are supported by each Party in its territory. Within the limit of the cost estimate made by LTF in its phasing study of the Franco-Italian common section, of the historical line capacity improvement between Avigliana and Bussoleno, i.e.  $81 M \in$ , the financing of these works is supported in the overall framework of the financing of the first phase. Any additional costs are borne entirely by Italy.

Budget overruns are shared evenly between the two countries.

This is the reason why the Prime Minister, Jean Marc Ayrault, stressed in his letter dated October 8<sup>th</sup>, 2012, the need "that the costs be certified in the most rigorous way possible, before the work is done, in an independent manner as the 2003 Franco-Italian memorandum also specifies it."

The interpretation of the certification requirements of Article 18 has therefore been arbitrated by the Prime Minister as being rigorous and independent.

As far as the certification independence is concerned, we can consider today that the Franco-Italian treaty and the government's commitment have not been respected. The certifying third party, the company TRACTEBEL, subsidiary of ENGIE, is one of the sub-contractors of Lyon-Turin Railway since 2002, therefore it cannot be considered as an independent party for cost certification.

This information can be found on TRACTEBEL's website and its parent company GDF Suez (now ENGIE), TRACTEBEL was a subcontractor of Lyon-Turin Ferroviaire between 2002 and 2006 and again between 2009 and 2013.

The second company, associated for certification with TRACTEBEL, was TUC Rail, whose chairman simultaneously held a position of director at Réseau Ferré de France (RFF) (now SNCF Réseau). RFF was a shareholder of Lyon-Turin Ferroviaire with 50% shares ; therefore, TUC Rail cannot be considered as independent either by the Prime Minister.

The commitment of the Prime Minister was his response to a specific demand made by the Court of Auditors in his summary judgment of August 1<sup>rst</sup> 2012 regarding the cost certification as specified in article 18 in the following terms:

4/8

Il précise également qu'« au-delà de ce coût certifié, les coûts sont répartis à parts égales entre la partie française et la partie italienne ».

Il conviendra de veiller à ce que cette indispensable certification soit réalisée par des experts n'ayant pas eu à travailler sur le dossier et n'ayant pas de conflit d'intérêt au regard des suites du projet.

He also states that, « beyond the certified costs, the costs are evenly split between the French and Italian parties. »

It will be necessary to ensure that this critical certification be carried out by experts who did not have to work on the project and have no conflict of interest with regard to the future of the project.

The facts demonstrate that the demanded quality of independence, object of a commitment made by the Prime Minister and a recommendation of the Court of Auditors, was not respected during the award of the contract.

The same is true for the cost / benefit analysis commissioned by Lyon-Turin Ferroviaire to Oliviero Bacceli of Universita Bocconi in Milan, who was appointed to the TELT Board of Directors.

The full re-discussion of the Lyon-Turin project could also take into account the provisions of the Treaty dealing with the cost certification by an independent body.

The risk of a financial exposure exists if the certified cost has been minimized or if the geological hazards have been under evaluated, as it has been the case in multiple occasions for the Saint-Martinde-la-Porte reconnaissance Tunnel from the beginning of its excavation, and even today with a tunnel boring machine which has experienced unplanned stops and had to undergo repairs requiring its shutdown for several months.

In Switzerland, the Gotthard base tunnel is also 57 km long, it has been dug in a massif of the same geological nature ; its actual cost is higher than that announced by the promoters of the Lyon-Turin project ; it raises questions about the capacity of the TELT company to keep the planned budget without the country being obliged to supplement the funding initially planned.

The budget for studies and recognition, announced in the French parliament in February 2002 when the agreement of January 29<sup>th</sup> 2001 was ratified, was 371 million euros. The actual cost of the current recognition work is already more than one billion euros, almost triple than the study budget announced. It also justifies interrogation about the project budget.

Assuming that the base tunnel total cost is only 10 billion euros instead of the 8.6 billion euros announced, then both France and Italy would be financially exposed to a 700 million euros increased budget.

## 2.e/ Financial risks incurred by France.

To summarize, there are two kinds of financial risks facing France:

- Arbitral decisions based on article 12 of the agreement of January 29<sup>th</sup>, 2001 and article 27 of the agreement of January 30<sup>th</sup>, 2012, aiming at rebalancing the funding between the two countries if France does not build the 33 kilometer twin tube tunnels of Belledonne and Glandon;
- Incremental costs of infrastructure realization exceeding the certified cost.

The risk of financial overexposure in France can be estimated to 1.2 billion euros in the absence of Belledonne Glandon tunnels and a cost overrun due to a base tunnel real cost of 10 billion euros instead of the 8.3 billion euros certified cost.

## 3/ Forecasts.

The first forecast for the Lyon-Turin project was presented to the interministerial committee on May 14th, 1991 by Mr. Louis Besson, initiator of the project to serve the city of Chambéry of which he was the Mayor.

Contrary to popular belief, the project includes freight since 1991:

```
. Liaison
          Transalpine (Lyon - Turin),
                                        reliant l'Italie à
     France
             et permettant des llaisons rapides
 la
                                                  avec
                                                        la
 Grande-Bretagne
                  (via
                        le tunnel sous la Manche)
                                                    et
                                                        la
 Belgique, au nord,
                      avec l'Espagne et le
                                             Portugal.
                                                        au
       Grâce à un nouveau tunnel de base d'environ 54
 sud.
                                                        km
                      cette liaison permet non
 sous
       le Mont Cenis
                                                 seulement
 d'assurer la connexion des réseaux
                                        à
                                          grande
                                                   vitesse
 français et italien, mais également de créer un nouvel
 itinéraire performant pour le trafic marchandises.
                                                        La
 liaison Chambéry-Genève s'y rattache afin
                                             de
                                                 permettre
 notamment des relations améliorées pour la Savoie et la
 Haute-Savoie tant avec l'Italie et la Suisse que vers la
 Côte Méditerranéenne. Les connexions internationales
 nécessiteront des accords avec les pays limitrophes.
 Sous
       les
            hypothèses des études du présent
                                               schéma,
                                                        се
 projet comporte environ 188 km de lignes nouvelles
                                                     aux-
 quelles
          s'ajoutent 73 km pour Chambéry-Genève.
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The Lyon-Turin link across the Alps, connecting France and Italy allows fast links to England (with the channel tunnel) and Belgium in the north, to Spain and Portugal in the south. Thanks to a new base tunnel approximately 54 kilometers long under the Mont Cenis, this liaison not only connects French and Italian high speed train networks, but also creates a new efficient freight route.

The liaison Chambery-Genève is connected to it, allowing improved relations of Savoie and Haute Savoie with italy and Switzerland as well as with the Mediterranean coast. International connections will require agreements with neighboring countries.

	PREVISIO	ONS DE TRAI	FICS	
PROJETS	M	ILLIONS DE	VOYAGEURS	
	AVANT	APRES	ACCROISSEMENT	olo
TGV Aquitaine	14,7	20,1	+ 5,4	+ 37%
TGV Auvergne	2,9	3,9	+ 1,0	+ 37%
TGV Bretagne	9,1	12,2	+ 3,1	+ 34%
TGV Est	8,4	14,5	+ 6,1	+ 73%
TGV Grand-Sud	3,7	5,3	+ 1,6	+ 42%
Interconnexion Sud	12,6	13,4	+ 0,8	+ 7 %
Liaison Transalpine	11,4	19,1	+ 7,7	+ 68%

The forecast for passengers is at the time overly optimistic:

Forecasts are made for the GIP Transalpes in 2000 by SETEC Economy:

It is interesting to compare the forecast for the year 2005 with reality, especially as the Maurienne high-performance motorway route, was put into service in July 2000, allowing improved traffic for heavy goods vehicles, as the motorway in Italy was already in use.

In the year 2005 (before the economic crisis of 2007 and five years after the opening of the Maurienne motorway), the traffic recorded at the two tunnels of Fréjus and Mont-Blanc was 1,369,356 total including 784,518 in Frejus and 584,838 in the Mont Blanc tunnel.

## The forecast was overestimated by 256,407 lorries.

	1996	1997	1998	1999 *	2000 *	2005 #	2010 #	2015 #
Fréjus	757 728	766 000	782 000	901 332	922 585	963 969	1 104 100	1 210 37
Mont-Blanc	729 635	734 306	776 604	731 635	748 886	661 794	746 602	787 28
Fotal	1 487 363	1 500 306	1 558 604	1 632 967	1 671 <b>4</b> 70	1 625 763	1 850 703	1 997 66
Fréjus (%)	50.9%	51.1%	50.2%	55.2%	55.2%	59.3%	59.7%	60.69
Mont-Blanc (%)	49.1%	48.9%	49.8%	44.8%	44.8%	40.7%	40.3%	39.49

In the year 2015, the difference increases, since the actual traffic in the two tunnels was 1 252 367 lorries, **745 296 lorries less than forecasted.** 

In 2006, the public inquiry information presented by Lyon-Turin Ferroviaire was still as optimistic about the growth of road traffic by 2017, despite the known disappointments for the Maurienne motorway, revealed by the LOTI report published in 2016 i.e. 11 years after the legal deadline.

Lyon-Turin Ferroviaire justified the need for the new railway project with a road traffic forecast for 2017 of 2,772 million freight lorries in the two road tunnels Fréjus and Mont-Blanc, without the project. The overestimation is even larger since 1,362,078 lorries were actually counted, i.e. **less than half of the project promoter's forecast**, which could have been more right, by taking into account the errors made in the forecast for the Maurienne motorway.

In addition, another error was made to the forecast on the existing railway line with 16.2 million tons forecasted Vs 3.5 million tons of actual traffic in 2017. This difference represents an overestimation of around 750,000 heavy trailers.



However, the forecast of 16.2 million tons per year gives the recognized capacity of the existing railway and sets a minimum level of its saturation. In its 1998 report, the « Conseil Général des Ponts et Chaussées » estimated the number of freight trains at 75 trains per day and by direction, on top of the passenger trains. Today, the average traffic is only 10 freight trains and 3 passenger trains per day and per direction.

However, despite these largely overstated forecasts, the project sponsor acknowledged the lack of economic viability of the project and stated on page 72 of the public inquiry information file:

<u>"The net actualised profit is negative</u> (-550M  $\in$ ). As a result, the actualised profit earnings ratio per public euro spent is not significant. [Actually with the opportunity cost of public funds is -2,880 M  $\in$  writer's note]

"The project is positive for France, because of Italy taking a larger share of the investment. "

There was no sensitivity test done to evaluate the impact of overstating freight and / or passenger forecasts. To date, there is no socioeconomic study of the construction and operation of the international tunnel alone, assuming that the French access to the project are not done.

All these observations led the promoters to recognize their mistakes several times and to acknowledge that the project is now a "bet on the future" or a project that has to compete with North / South circulation axes through Austria or Switzerland.

This last statement must also be evaluated in the light of the agreement of January 30<sup>th</sup>, 2012 whose last sentence of the last appendix can only raise questions for public decision-makers:

Elles s'accordent notamment pour rechercher ensemble, auprès de leurs partenaires alpins et de la Commission européenne, les conditions de la mise en place progressive et adaptée aux capacités des modes alternatifs de transport, d'un contingentement des flux routiers transalpins permettant, après la mise en service de la liaison nouvelle et malgré la croissance attendue des échanges, de modérer les trafics aux passages routiers franco-italiens dans le but de favoriser l'usage du mode ferroviaire, plus respectueux de l'environnement.

Les Parties engageront par ailleurs une discussion avec les autres pays alpins et la Commission européenne, en vue d'éviter que les niveaux de tarification ferroviaire retenus dans chaque Etat ne génèrent une concurrence entre itinéraires collectivement néfaste à chacun des grands projets alternatifs transalpins.

The head of TELT told the press in January 2015:

"In the context of national rethinking around these constructions, the Lyon-Turin link would not be a priority, while others, more important, are to be reassessed. If we still consider it useful to build a high-speed line here, we would have it all wrong. Today, the initial argument can no longer justify the project. "

"The argument that the existing tunnel was going to be saturated is no longer true. We went from an era of great continuous growth to a difficult economic climate. On the Franco-Italian alpine border, flows are stable. And in the northern Alps, activities are decreasing. "

In Italy, in a report of the Lyon-Turin Observatory of the Presidency of the Council of Ministers dated November 10<sup>th</sup>, 2017, we can read:

« There is no doubt indeed, that many forecasts made almost ten years ago, in good faith, also based on official forecasts from the European Union, have been denied by the facts ... » « The current scenario is therefore very different from the one taken into account at the time of the decisions ... »

Non c'è dubbio, infatti, che molte previsioni fatte quasi 10 anni fa, in assoluta buona fede, anche appoggiandosi a previsioni ufficiali dell'Unione Europea, siano state smentite dai fatti, soprattutto per effetto della grave crisi economica di questi anni, che ha portato anche a nuovi obiettivi per la società, nei trasporti declinabili nel perseguimento di sicurezza, qualità, efficienza.

Lo scenario attuale è, quindi, molto diverso da quello in cui sono state prese a suo tempo le decisioni e nessuna persona di buon senso ed in buona fede può stupirsi di ciò. Occorre quindi



Presidenza del Consiglio dei Ministri OSSERVATORIO PER L'ASSE FERROVIARIO TORINO-LIONE

ADEGUAMENTO DELL'ASSE FERROVIARIO TORINO-LIONE

## VERIFICA DEL MODELLO DI ESERCIZIO PER LA TRATTA NAZIONALE LATO ITALIA FASE 1 -2030

10 novembre 2017

In the end, the promoters of this project simply acknowledge that the conclusions of the various French administrations, have been right for twenty years:

- In 1998, the « Conseil Général des Ponts et Chaussées » analyzed the project in detail and stated on page 52 of its report signed by Christian Brossier: "Building the base tunnel first, while its capacity would be much higher than what some railway sections can accept to its north and south would be like « put the cart before the horse ».
- In 2003, a joint report of the « Conseil Général des Ponts et Chaussées » and the « Inspection Générale des Finances » was not favorable either by indicating: "After the thorough analysis which was carried out on this set of infrastructure development, <u>the mission considers that</u>, in the methodological framework currently applicable to the evaluation of infrastructure projects, the socioeconomic studies are far from demonstrating the interest of the project for the community. "
- **On June 21<sup>rst</sup>, 2006**, a new joint report of the « Conseil Général des Ponts et Chaussées » and the « Inspection Générale des Finances » about the transfer of freight from road to the dedicated rail service in the northern Alps, made a critical observation by noting the forecast errors on the first four years of operation.
- In 2009, the Court of Accounts, under the presidency of Mr. Philippe Séguin, publishes a report about "The AFITF: a financing agency, with limited ambitions, deprived of its resources, now useless" in which are pointed out the financial risks that major infrastructure projects such as Lyon-Turin represent.
- **Since 2012,** the Court of Accounts, under the presidency of Mr. Didier Migaud, did not cease to demonstrate the dead-ends of the Lyon-Turin project.
- On February 1<sup>rst</sup>, 2018, The Orientation Council for Infrastructure, chaired by Mr. Philippe Duron, states about the French access to the project: "He (the council writer's note) considers that the demonstration was not made of the urgency of undertaking such constructions, <u>the socioeconomic characteristics of which are clearly unfavorable at this stage</u>. » then « Based on the information he has, the Council considers that it is wise to modernize in a progressive manner the Dijon-Ambérieu-Chambéry-Montmélian-Saint-Jean-de-Maurienne section of the existing Dijon-Modane line ... ".

It is now admitted that the existing railway line between France and Italy is not exploited to the level of the announced capacities, that it is far from being saturated. The railway experts also recognize that it is not obsolete either, given the heavy modernization and improvement works that have been carried out there for more than ten years.

It is recognized, including by the General Manager of SNCF Freight, that the existing railway line can support intermodal trains in sufficient numbers to allow the transfer, without significant investment, of nearly 50% of heavy freight traffic traveling on the two Franco-Italian road routes of Mont-Blanc and Fréjus.

Ainsi, l'article premier de l'accord du 29 janvier 2001 prévoyant la mise en service de la partie commune du projet de nouvelle ligne ferroviaire Lyon-Turin, « à la date de saturation des ouvrages existants » ne se trouve méconnu, ni par la pause décidée par le gouvernement français, ni par l'accord de gouvernement italien.

Thus, Article 1 of the agreement of January 29<sup>th</sup>, 2001 planning to start operation of the common section of the proposed new Lyon-Turin railway line, "*on the date of saturation of existing works*", is not infringed either by the « pause » decided by the French government, nor by the Italian government agreement.

Finally, to the best of our knowledge, there is no penalty clause in the treaties between France and Italy for this project of new railway line. "Dispute settlement" is governed by legal recourse to an arbitral court in accordance with the provisions of article 12 of the Agreement of January 29<sup>th</sup>, 2012 detailed in article 27 of the agreement of January 30<sup>th</sup>, 2012.

Analysis of the Lyon-Turin project and of the regarding treaties

Reimbursements that may be requested by the European Union, only concerns actions that have not been completed in accordance with article 12 of the Regulation (EU) No 1316/2013 of the European Parliament and of the Council of 11 December 2013 establishing the Connecting Europe Facility *https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1316&from=en* 

## Article 12

Cancellation, reduction, suspension and termination of the grant

1. Except in duly justified cases, the Commission shall cancel financial assistance granted for studies which have not been started within one year following the start date laid down in the conditions governing the granting of aid or within two years of that date for all other actions eligible for financial assistance under this Regulation.

2. The Commission may suspend, reduce, recover or terminate financial assistance in accordance with the conditions set out in Regulation (EU, Euratom) No 966/2012 or following an evaluation of the progress of the project, in particular in the event of major delays in the implementation of the action.

3. The Commission may require the complete or partial reimbursement of the financial assistance granted if, within two years of the completion date laid down in the conditions governing the granting of aid, the implementation of the action receiving the financial assistance has not been completed.

4. Before the Commission takes any of the decisions provided for in paragraphs 1, 2 and 3 of this Article, it shall examine the case comprehensively in coordination with the bodies respectively mentioned in Article 6(3) and consult the beneficiaries concerned so that they may present their observations within a reasonable time-frame. After the mid-term evaluation, the Commission shall notify the European Parliament and the Council of all decisions taken on the annual adoption of the work programmes under Article 17.

Thus, there is a risk of losing part of the unused grant, according to the principle recalled by the Commissioner for Transport "Either you use it, or you lose it".

This was already the case after the decision C (2013) 1376 of March 5<sup>th</sup>, 2013, **following which the project lost 276,517,850 euros** out of the 671,800,000 euros granted by Decision C (2008) 7733 on December 5<sup>th</sup>, 2008.

Unless TELT is in a situation where a large number of activities are launched without being completed and for which European funds have already been paid, the financial risk of putting on hold or suspending operations can only be limited and, in any case, cannot amount to as much as "building the tunnel "as we can hear here or there.

Based on these findings; we must consider that investing in this project under the present conditions would only end up deteriorating the financial situation of the countries without any chance of finding resources in its operation to lessen the effects. The exploitation of an oversized railway infrastructure, whose cost per kilometer is much higher than what can be balanced by a railway operation, can only lead to the creation of massive operating debts in the future.

The conclusion of the Orientation Council for Infrastructures and its recommendation to use the existing railway tracks should be followed. Its conclusions should be extended to the base tunnel project (not analyzed by the O.C.I), for the same reasons.

The Federal Office of Transport (FOT) in Switzerland states in its November 2017 report "Traffic Transfer" that the savings generated by a base tunnel are much less than those claimed by the promoters of the Lyon-Turin project. The savings are only 15 to 20% in direct operation for the railway operators (energy, equipment, personnel), excluding depreciation costs:

### Économies de ressources : locomotives et conducteurs de véhicules moteurs

La mise en service du TBG a permis d'optimiser de manière significative l'utilisation des locomotives par le seul fait que les trains ne requièrent plus de deuxième locomotive entre Erstfeld et Bellinzone ni de locomotives de pousse entre Erstfeld et Göschenen. Les trains qui empruntent l'antenne de Luino ne requièrent plus qu'une seule locomotive dans les deux sens sur tout l'itinéraire suisse. Sur l'antenne de Chiasso, les trains doivent encore être acheminés avec deux locomotives afin de maîtriser les pentes entre Bellinzone et Chiasso. Conséquence directe des économies de locomotives : l'économie de conducteurs de véhicules moteurs. Les ETF voient d'un œil positif l'évolution en termes de ressources. Du fait des besoins moindres de locomotives, elles tablent sur une diminution des heures de service des conducteurs d'environ 10 à 15 % sur les transports via Chiasso et d'environ 15 à 20 % sur les itinéraires via Luino. Les économies potentielles ne suffisent toutefois pas – en lien avec les dispositions sur le temps de travail – à mettre en œuvre de tout nouveaux plans de service pour les conducteurs.

La mise en œuvre complète de ces économies se heurte à l'offre asymétrique de sillons due à des chantiers et des déviations. Les transports via Luino ne permettent que de faibles économies en raison de la fermeture du tronçon au cours du deuxième semestre 2017 et les fortes disparités qui en résultent.

#### Consommation d'énergie

Les économies en matière de locomotives sur la section Erstfeld – Bellinzone et l'évitement des pentes de la ligne de faîte du Saint-Gothard entraînent une légère baisse de la consommation d'énergie. Certaines entreprises calculent une économie d'énergie moyenne de 15 à 20 % sur les sections suisses de l'axe du Saint-Gothard.

#### **Resource savings, locomotives and drivers of motor vehicle**

drivers' hours of service are reduced by around 10 to 15% for transport via Chiasso and around 15 to 20% for itineraries via Luino

#### **Energy Consumption**

an average saving on energy of 15 to 20%

In this detailed note, we wanted to share with you our analysis based on facts, findings and documentation, of this risky and expensive project, staying far away from ideological or dogmatic approaches.