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Corso di Laurea Magistrale o Specialistica in INTERNATIONAL ECONOMICS AND BUSINESS

**Public Choices and the Nimby movements:**

**the TAV case**

**Scelte pubbliche e movimenti Nimby: il caso TAV**

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Anno Accademico 2018 – 2019

**PUBLIC CHOICE AND THE NIMBY SYNDROME: THE TAV CASE**

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## **ABSTRACT**

The Turin-Lyon high-speed project is just one of many cases in Italy of suspended infrastructure works, that were and still are classified as fundamental for the growth of the country. The object of this brief analysis is to show the effects of the management adopted for this type of works in our country through the Public Choice theory that defines the main subjects able to influence the decision-making process. It is highlighted the role of politicians and bureaucrats with their private interests, placed above the collective welfare, making them capable to influence and model political decisions.

The theory has also been used to put in evidence the importance of citizens participation in the process and the methods that can be adopted to put it in practice, because the lack of involvement together with an asymmetric distribution of cost and benefits lead to the rise of opposition movements, that unavoidably brings to an extension of the time required and to an increase of the overall cost. This is a problem that arose in the TAV case with the now popular No-TAV movement, which has been classified as a Not-in-my-backyard case and characterized by a focus of the opposition on the perceived irrationality of the project and on the costs that should be sustained for the construction.

The overall idea is that the suspension of infrastructure projects is mainly caused by their ideologization by politicians with their parties, that use them to obtain consensus during political elections and to satisfy personal interests, and by protesters accused to be affected by a "free-riderism", that is the refusal to pay the costs necessary for the achievement of collective goods. These groups, indeed, are often defined as something between interest groups and social movements that acts with participative features interchanged with lobbies traits.

## ABSTRACT

Il progetto dell'Alta velocità Torino-Lione è solo uno dei tanti casi in Italia di opere infrastrutturali sospese, che sono state e sono tuttora classificate come fondamentali per la crescita del Paese. L'obiettivo di questa breve analisi è mostrare gli effetti della gestione adottata per questo tipo di opere attraverso la teoria della Scelta Pubblica, attraverso la quale vengono definiti i principali soggetti in grado di influenzare il processo decisionale. In particolare, viene evidenziato il ruolo dei politici e dei burocrati con i loro interessi privati, posti al di sopra del benessere collettivo, rendendoli quindi capaci di influenzare e definire a loro vantaggio le decisioni politiche. La "Public Choice" è stata anche utilizzata per mettere in evidenza l'importanza della partecipazione dei cittadini al processo e i metodi che possono essere adottati per metterla in pratica, in quanto la mancanza di coinvolgimento accompagnata da una distribuzione asimmetrica di costi e benefici portano alla nascita di movimenti di opposizione, che inevitabilmente prolungano il tempo richiesto e incrementano il costo complessivo dell'opera. Questo problema viene analizzato tramite il caso TAV con l'ormai popolare movimento No-TAV, classificato più volte come un esempio di *Not-in-my-backyard*, in cui l'opposizione si incentra sull'irrazionalità del progetto e sui costi necessari alla sua costruzione. L'idea generale perseguita, è che la sospensione dei progetti infrastrutturali nel nostro paese, sia dovuta principalmente ad una loro ideologizzazione da parte dei politici che li usano per ottenere consenso durante le elezioni politiche e per la soddisfazione di interessi personali, e dai manifestanti accusati di essere influenzati da un "*free-riderism*" ovvero il rifiuto di pagare i costi necessari per il conseguimento di beni collettivi. Questi comitati, infatti, sono spesso individuati a metà strada tra gruppi di interesse e movimenti sociali che agiscono con caratteristiche partecipative ma talvolta anche lobbistiche.

## **1. INTRODUCTION**

The Turin-Lyon high speed project passed through a dozen project phases, eight CIPE resolutions, has five environmental impact assessments and seven international treaties and agreements behind it, which have been constantly put in discussion by group of citizens leading to a thirty-year duration, without giving signals of a conclusion. It is through a brief historical reconstruction of the main project phases that this work begins in the second chapter, where the attention is put on the political factor with the tendency to an ideologization of the issue among political parties, whose aim is to obtain as much consensus as possible and the pursuit of private interests.

These kind of projects of public or private use of the territory proved to be able to gather and organize residents, because citizens living in the area mainly consider as a threat the reduction of the material value of land and housing.

In general, these movements are identified as egoistic, associated to a conservative behavior and contrary to an economic development, making them definable as NIMBY groups, which a specific explanation is given in the fourth chapter. The selfish character is due to their decision to act based on a calculation of costs and benefits with the aim to reduce the former and increase the latter.

The most relevant factor that leads to the rise of these movements is the perception of an unequal distribution of costs and benefits. This means that the opposition rise in presence of a diffusion of perceived harmful factors, identified as “public bads”, upon a limited group of people in exchange of benefits that, instead, can be used also by the ones who are not subjected to the payment.

It is on this analysis of costs and benefits that protesters focus their opposition because through these “allocative” aspects an infrastructure is considered acceptable or not by the community. In the third chapter to this purpose, there is an explanation of the CBA tool and of these allocative aspects, with a focus on the last CBA produced by the government which has been source of interesting conflicts, mainly due to the criticism of lack of impartiality, as repeatedly happens with this instrument.

The TAV case represent one of the best examples for the explanation of the problematic of protester movements, due to the presence of a strong group of opposer, the NO-TAV movement, composed not only by residents but also by local institutions and environmental associations. In the fourth chapter his birth is briefly retraced, it is highlighted the growing strength it has achieved in the years and how it evolved, reaching the position to decide partially the continuation of the project.

The fault for the creation of these groups is identified in the lack of opportunities for these people to participate in the definition of the project, residents feel they do not have the possibility to express their perception about the unequal distribution and about the risks the infrastructure can bring. The Italian system is characterized by a small tendency to let population actively participate in the decision-making process, as explained during the fifth chapter, particularly in the field of formulation and implementation of public policies. The problem is that there is a tendency to apply an *ex-post* consultation, which means that citizens are called to take part of the process only after the decision is taken, leading to a contrary position *a priori*, so that they are adverse even if the project have the potential to spread large benefit for the community.

For this reason, there are several debates on how this system should be changed through a better transparency and sharing of the procedure for the project, so to avoid the syndrome of “why in my neighbor”.

The NO-TAV movement success is linked to the ability of the organizers to involve not only the residents but also several actors as mayors, students, professors, environmental associations leading to the creation of a net with different generations, social classes and ideological beliefs. These participation of majors and local institution makes clear the shift of the conflict in a political-territory field,

where local administrators are grounded in their communities and it is difficult the mediation between the center and periphery.

Through the instrument of protests, the activists try to demonstrate the possibility to change those decision that are considered as “already taken”, not only on the methods but also on the fundamental choice to do it or not. In this way the local debate became a global interest and consequently the protest turn into a “bottom up” policy with the study of new forms of participative democracy.

From the other side according to the Public Choice theory, politicians aim to the satisfaction of their private interests even at the expense of the community, becoming another cause of works suspension. When they are interested in the construction of an infrastructure they act despite the opposition of residents worried about environmental or health problems. In parallel, opposite political parties can exploit the protester movements to obtain a part of the electorate, simply by joining them, as it happened in the Turin-Lyon case. In the high-speed project as will be demonstrated, political interests play a fundamental role since the beginning, with laws created on purpose, debates raised only close to elections and political parties deployed to reach as much consensus as possible hiding behind an interest of resident’s protection.

## **2. THE FAILURE OF A PROJECT THAT LASTS FROM THIRTY YEARS**

### **2.1 DEFINITION OF THE TURIN-LYON**

The TEN-T programme consists of hundreds of projects whose ultimate purpose is to ensure the cohesion, interconnection and interoperability of the trans-European transport network, as well as access to it. TEN-T projects, which are in every EU Member State, include all modes of transport: road, rail, maritime, inland waterways, air, logistics, co-modality, innovation.

As a whole, TEN-T projects aim to establish and develop the key links and interconnections needed to eliminate existing bottlenecks to mobility, fill in missing sections and complete the main routes, cross natural barriers and improve interoperability on major routes.

The Mediterranean corridor is the main east-west axis in the TEN-T network south of the Alps. It runs between the south-western Mediterranean region of Spain and the Ukrainian border with Hungary, following the coastlines of Spain and France and crossing the Alps towards the east through Italy, Slovenia and Croatia and continuing through Hungary up to its eastern border with Ukraine. This Corridor - of about 3,000 km - integrates former Priority Projects 3 and 6 and corresponds to the Mediterranean Rail Freight Corridor.

The railway axis from Lyon to the Ukrainian border is the main east-west passage south of the Alps, this axis with a total length of more than 1 400 km up to the Ukrainian border includes about 750 km of new high-speed lines – including a base tunnel of about 52 km under the Alps – designed for speeds of 250–300 km/h. The new axis will be used by both passengers and freight linking the French and Italian high-speed networks.

The work plan underlines the strategic position of the Lyon-Turin 57km base tunnel. It is the main missing link in the Corridor and a fundamental element to improve the connection between southwestern Europe and central/eastern European countries.

The design of Turin-Lyon passes through a dozen project phases, eight CIPE resolutions, has five environmental impact assessments and seven international treaties and agreements behind it which were constantly put in discussion by group of citizens that organized themselves with committees and associations protesting through demonstrations and sit-in around the territory.

## **2.2 PROJECT PHASES: EARLIER STAGES (1989-2001)**

In 1989 the Associazione Tecnocity presented in a public meeting at Fondazione Agnelli, the project of a high-speed railway line for passengers between France and Italy. The project foresees the construction of a transalpine tunnel 50 km long

as a part of the future railway line between East and West Europe. During the 1990 the proposal was presented during a meeting held in Nice between Italy and France without the agreement of FS which were oriented to implement and speeding up the existing lines, like the one called "Pendolino".

With the renewal of the FS summit in 1991 with Lorenzo Necci as president, in place of Mario Schimberni who was averse to any project of high speed, the Comitato Promotore per l'Alta Velocità<sup>1</sup>, chaired by Agnelli and Beltrami (president of the Piedmont Region) was able to present to FSI and to SNCF the feasibility study for the new railway Turin-Lyon. The study was based on two assumptions: by 2002 passenger traffic would have increased by 500% and the saturation of the existing line would happen by 1997. The study also quantified the cost of the new line in € 3.7 billion, without presenting one unique idea of the track.

With the signature of the resolution 971 of 7/8/1991 by the Extraordinary commissioner of the FSI, the TAV project was officially declared, specifying that: «The financing of the investments will be covered with the use of private capital for a significant part of the same, about 60% of the total cost, the only difference

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<sup>1</sup> This Comitato Promotore was formed by all the representatives of the entrepreneurial scene in Turin, like Tecnocity, Federpiemonte, Camera di Commercio di Torino, Confindustria Piemonte, Unioncamere Piemonte, San Paolo IMI Bank, Unione Industriale di Torino, S.I.To and of local public institutions like Provincia di Torino and the Municipality of Turin

(around 40%) and the interest charges during construction and start-up are borne by the State». Furthermore, in the same document was established that the financial and patrimonial responsibility of the realization of the project, giving in concession executive design, construction and economic exploitation of lines and infrastructures to the new society “TAV S.p.A.”. For what concerned with the realization and designing, TAV S.p.A. was bounded to commit the contracts to predefined subjects, that are FIAT SpA as general contractor exclusively as a contracting station, ENI and IRI assumed *ab externo* the guarantee of realization of the works, while the supervision and control of execution was given to an own subsidiary SIS.TAV S.p.A.. TAV Spa wouldn't obtain the refund through the management of the line, but with the stipulation of two contracts with a new subsidiary of FSI “TAV-CO Spa” and with FS itself. At the end of the meeting, contrary to what was expected, there was no signature of the contract between FSI and TAV Spa which would have allowed the actual start of the project due to impossibility of De Cesaris to be nominated as president of the TAV Spa<sup>2</sup>.

In October this study was presented again in Viterbo, at the Annual Summit between Italy and France, on this occasion, the Italian Minister of Transports, Carlo Bernini, and his French counterpart, Paul Quilès, signed the declaration of intent

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<sup>2</sup> De Cesaris was the general manager of FS, due to the the Law 210 he couldn't assume the direction of TAV Spa because it was an associated company of FS.

for the realisation of the Turin-Lyon high-speed railway, giving to FSI and SNCF the mandate of carrying out further feasibility studies and of constructing the railway. The first project's official proposal was presented in October 1992, by Regione Piemonte, together with the Comitato Promotore per l'Alta Velocità. The proposal foresees the construction of a high-speed railway that crossed Moncenisio through a double barrel tunnel, at the cost of €6,2 billion, the project was approved by the French-Italian Steering Committee in Rome, in September 1993. In 1994, FSI and SNCF created a specific body to realise the preliminary feasibility studies: the GEIE Alpetunnel - then Société Lyon-Turin Ferroviaire (LTF). A Committee composed by the representatives of the two countries, stakeholders and local authorities, involved in the project had the aim of examining all GEIE Alpetunnel studies and it would be assisted subsequently by the French-Italian Inter-governmental Commission (CIG), that, instead, oversaw drafting the inter-governmental agreement on the main features of the work.

Meanwhile, the European Commission during the European Council in Essen declared the inclusion of the Turin-Lyon railway linkage in the list of 14 "priority projects in the transport and energy sector" under the definition of "Works already started or due to start by the end of 1996". Directives related to the TEN-T project were inserted under Title XVI, Articles 170 – 172, of the Treaty on the Functioning of the European Union.

On January 15, 1996, in Paris, Giovanni Caravale - economist and transport minister of the technical government Dini - signed the first agreement with France, creating an intergovernmental commission CIG, above mentioned, that was a negotiation between representatives of the two EU member states to throw the bases of the realization of the great work, with the task of follow the problem regarding the international part and define the project.

In September 1996, the FS President Lorenzo Necci was arrested, for swindle, criminal association, false accounting, embezzlement of public money, corruption and abuse of functions.

In March 1997, during a meeting between the Mountain Community and the environment Minister, the latter claimed that the works would be focused on the modernization of the existing line for which funds were already settled. A few days later, 39 people died in the Mont Blanc highway tunnel, tragedy that overturn the situation making the high-speed project fundamental.

The internal debate among promoters became tense when, Alpetunnel and the Provincia showed two alternative projects, in two different public meetings, where the proposal of Alpetunnel seemed to be the favourite one. However, the debate among promoters continued, not enabling the definitive choice of the track and slowing down the beginning of the works.

Therefore, in October 1997 in a bilateral meeting in Chambéry, Italy and France confirmed their commitment in the realisation of the Turin-Lyon project and scheduled the development of a three years action valued 55.000.000 ECU.

### **2.3 FROM 2001 TO TODAY**

In 2001, after three years, Alpetunnel feasibility studies have been published and although the environmental group state the heavy impact of the project on the territory, the overall judgment they gave was positive, while the economy and finance work groups claimed the necessity of support policies to face the striking reduction of traffic forecasts along the route.

The prime ministers Giuliano Amato and Jacques Chirac signed the French-Italian intergovernmental agreement for the realisation of the new Turin-Lyon railway ignoring the feasibility studies which had been expected for 3 years. The agreement contemplated a new railway route that connected the broad French valley that runs for about sixty kilometres between Albertville and Grenoble and the Turin railway junction<sup>3</sup>. In the same year the Italian and French governments were setting up the new CIG president, the industrialist Sergio Pininfarina, at the same time president of the Transpadana promoter committee, thus in clear conflict of interest. During the first meeting of the renewed CIG, the decision was

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<sup>3</sup> Law 27 september 2002 – n. 228 -

to halve the timing of the preliminary plans from 2006 to 2003 in order to get the project finished by 2012. Meanwhile, Pininfarina announces the substitution of Alpetunnel with LTF (Lyon-Turin Ferroviare) which had to manage tenders for projects and construction, promising it would consider the voice of local populations.

Furthermore, during the Berlusconi legislature, the "Objective Law" was approved in order to simplify the approval procedures for "strategic" works, among which the new line was reclassified<sup>4</sup>. The intention of the Government was to increase the realisation rate of the public works, but this law limited the possibility for local authorities to express their opposition to public works. They could only ask for variations but, since this works are considered essential by the Government, they could not stop the projects.

Further this law strongly limited and changed the procedures of Environmental Impact Assessment (EIA<sup>5</sup>) that became a competence of the Comitato Interministeriale per la Programmazione Economica (CIPE<sup>6</sup>) and not anymore of

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<sup>4</sup> The Legge Obiettivo introduced new standards not only in terms of spending, but especially in procedural terms, by identifying in this sense a very precise and rigorous schedule that has reduced considerably the times that usually existed between the design and building of infrastructure projects considered as strategic for the socio-economic development of the country. Source: <http://sirsi.mit.gov.it/reserved/LaLeggeObiettivo/legge443.pdf>

<sup>5</sup> EIA (in Italian VIA - Valutazione di Impatto Ambientale) is an analytical process that systematically examines the whole possible environmental impacts due to the construction of a new public work in a specific territory.

<sup>6</sup> CIPE is an inter-ministerial body in charge of individuating all the action necessary for the achievement of the national public economy's objectives.

the Ministry of Environment. In this way the environmental costs/benefits ratio of a project, usually analysed by technicians and experts, was evaluated by a Ministerial body, evaluator of economic priorities and not environmental costs.

In December 2003, CIPE approved the preliminary project of the international track from San Didero to the base tunnel, at the total cost of 2 billion and 300 million euros. Less than a week later, in Paris took place the meeting of CIADT<sup>7</sup>, the French counterpart of Italian CIPE, with the aim to take a final decision on the allocation of funds for public works from 2004 to 2020. However, the French Government declared that Turin-Lyon was not a priority so the mayor of Lyon scheduled the beginning of works in 2012. Meanwhile, Italian Government and its Prime Minister Silvio Berlusconi did not give up, as they wanted at least to announce the beginning of works. France and Italy agreed upon a new economic costs partition, whose total amount was 13 billion euros: Italy was committed for the payment of the 2/3 of the whole railway line, while the 20% was financed by EU.

In November, the protest against the project became stronger and sometimes violent, no-TAV movement required the intervention of some representatives of the European Commission. To meet this request a delegation of the European

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<sup>7</sup> Comité interministériel d'aménagement et de développement du territoire

Committee on Petitions made an on-site verification in Val Susa, which reported the necessity to consider all the worries expressed by the residents. Furthermore, the MEP De Palacio decided to assign to a team of independent experts the evaluation of the dossier presented by LTF for the international track of the new railway. The team gave a positive evaluation of LTF dossier underlining the necessity of an Environmental Impact Assessment (EIA) for the pilot tunnel of Venaus, that had to be finished by 2007.

While the separation from the Objective Law was announced<sup>8</sup>, due to the need of obtain consensus in the territory the government constituted the Technical Observatory with the purpose of re-examining the whole project, including the assessment of the effective need of the work. Despite this effort, opposition in Val Susa continued to obstacle the drilling works, and Regione Piemonte tried to mediate calling for a “Conferenza di Servizi”<sup>9</sup>, but the Comunità Montana appeared strongly against it. The first meeting was concluded with the decision to go on with the works ignoring the previous proposal of the construction of the

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<sup>8</sup> “The exit from the law Objective of the Turin-Lyon High-Capacity line project brought the work back into the ordinary procedure, in order to adopt the widest participation of the local communities in the authorization procedure”.

[http://www.regione.piemonte.it/torinolione/comunicati/conferenza\\_serv.htm](http://www.regione.piemonte.it/torinolione/comunicati/conferenza_serv.htm)

<sup>9</sup> It is a joint meeting of all the administration involved in a procedure with the aim of simplify the action of public administration through the joint analysis of the different public interests involved in a public procedure.

railway line in the opposite side of Val Susa, which could help to revitalise the territory without soil consumption.

Due to the difficulty on proceeding with the works, Barrot the EU Commissioner responsible for Justice, Freedom and Security, worried about this situation issued an ultimatum to Italy: if the project for the international track would not be delivered within June 2007, the European contribution for the realisation of the work would be lost. The then Italian prime minister Prodi called a meeting of the Institutional Forum of Palazzo Chigi, which expressed the preference for an alternative project based on the empowerment of the existing railway. However, the technical observatory was asked for examine the different hypothesis and to build a project shared with the administrators of Val Susa. EU considered the Italian efforts and made go on the procedure for the call for European contribution.

Despite the No TAV movement and the majors of Val Susa presented papers and petitions to the relevant EU offices explaining their opposition to the project, on 1 November 2007, EU allocated an amount of 671,8 million euros as first contribution to the Turin-Lyon high-speed railway.

An agreement was closed between the Technical Observatory and local authorities and signed in Pra Catinat on 28 June 2008, which aimed to promote at Italian governmental level, appropriate procedures to guarantee the consultation of local

authorities and residents before the realisation of infrastructures and public works.

During 2009 while drilling had started, works didn't, and several municipalities started to exit from the Observatory, this led the EU commission to issue another ultimatum to the two countries which required the works to be started by the end of June or the funds allocated would be cut. Under this condition loans were reduced in October 2010 during the funding review by the Commission which increased the pressure requiring a new agreement by the end of 2010 or all the funds would be lost.

Due to this pressure, CIPE approved in November 2010 the definitive project of the tunnel La Maddalena, and a few months later the government approved and financed it, the first expropriations are notified the land previously purchased by the NoTAVs within the area designated for construction at La Maddalena was permanently manned by protesters. Meanwhile a trial that involved the first promoter of the project, started in 2005, ended with eight convictions and six acquittals for a series of irregularities in the awarding of contracts. All these events demonstrated the failure of the Observatory as mediator and as a consequence of this, most of the representative institutions of Val Susa leaved the Observatory.

During 2009, a rise of a new political force happened: the 5 Stars Movement which supported Susa Valley, focusing the electoral campaign in the opposition to the

project, obtaining in 2010 the 40% of the vote and becoming the first party on the region.

The following year, the doubling of the Frejus motorway tunnel in contradiction with the aim of the new TAV / TAC line, that is, the transfer of traffic from road to rail, was started and brought to the modernization of the Frejus railway tunnel, making the existing line suitable for the passage of containers.

In the same period the new Italian Government, chaired by Mario Monti, tried to proceed with the works, in order to meet the European expectations, so Italy and France signed a new agreement on the partition of costs: Italy, with the 40% of the total tracks, would face the 63% of costs, France, with the 20% of the total track, would pay the 58%. Since then, nothing happened until 30 January 2012 when the Italian government and the French one signed an intergovernmental agreement that divided the realisation of the railway in priority phases.

Since the beginning of 2015, new steps forward were made with the approval of the final project for the Italian part of the international track by CIPE and the institution of TELT – Tunnel Euroalpin Lyon-Turin -the new public promoter that replaces LTF as responsible for the realisation and the management of the new infrastructure. The Italian Minister of Infrastructures Maurizio Lupi met his counterpart Alain Vidalies in Paris, to sign the additional protocol for the beginning of works and deliver the application for assistance to the EU. The text of the

agreement is then ratified and definitively approved two years later, in January 2017. Also, in 2017, four years after the start of the works, the excavation of the geognostic tunnel is completed: 7020 m were excavated, instead of the 7500 m planned.

Finally, in March 2018, the CIPE approved a variation to the final project launched in 2015, based on which, the main area of the works is moved from Susa to Chiomonte, where the site already used should be expanded. The choice of this movement was necessary, the Turin Lyon Observatory explains, for the actions against the Chiomonte construction site in the past and “which make it necessary to set up the site of national strategic interest for the construction site and a consistent presence law enforcement and police forces to guarantee the safety of the work”<sup>10</sup>.

The political elections of 2018 brought to a new government led by Minister Giuseppe Conte and a majority composed by two political forces that during the political election where competitor and with two opposite position respect to the Turin Lyon project. M5S has mentioned before, has always been averse to the project, but in the political programme of 2018 under the chapter “Transports”

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<sup>10</sup> At its meeting of 21 March 2018, CIPE approved the authorization procedure for the site-building variant of the new Turin-Lyon railway line, in compliance with the prescription n. 235 of CIPE Resolution no. 19 of 2015 (Resolution 21 March 2018; Resolution 26 April 2018)

they claimed their intention to review the works in progress, updating cost-benefit analysis and of economic-financial plans. On the contrary, the Lega party has been in favour of creating the work several times over the course of time.

Once in government, the two parties have signed a joint contract which states that "with regard to the Turin-Lyon high-speed line, we are committed to a full discussion of the project in the application of the agreement between Italy and France"<sup>11</sup>.

The new Minister of Transport, Danilo Toninelli, on June 6th, 2018, a few days after the birth of the government declared that great works, including the Turin-Lyon, would be evaluated based on a cost-benefit analysis: "Together at the Lega we will re-evaluate this project, but with legal and technical scientific assessments».

On February 2019, the cost-benefit analysis was published and stated that the project would be a huge waste of public money with a disproportion of costs of 5,7 mld with respect to the benefits. Along with the cost benefit analysis, has also been published the Technical-legal Report, which highlights the risk of penalties, according to which in case of dissolution of the TAV project, the maximum cost between penalties and reimbursements could reach 4.2 billion.

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<sup>11</sup> "contract for the Government of change, 18/05/18"

### **3. ALLOCATIVE ASPECTS OF THE PROJECT AND THE COST-BENEFIT**

#### **ANALYSIS**

When there is a plan to construct a great work, as the one in analysis, it is necessary to provide a clear definition of the costs and benefits that arise from the construction of it.

The analysis is not only used to know the overall cost that should be sustained but also as a tool for the comparison with other solutions. Fundamental is the transparency and the open access to everyone that is affected by the work, and the relative communication of data should be done *a priori* and updated continuously.

In this chapter, to a general explanation of the CBA follows an analysis of the last one published by the actual government criticized for being against the project and used as a tool by ruling political parties to gain votes of citizens affected and interested in the project. This last aspect has become stronger with the actual government composed by two different political parties one in favour and the other contrary, which use this project as a point of electoral program.

Broad spectrum of the public opinion sustain that any cost and benefit analysis is useless nowadays, since they are clear after 30 years of studies, so they identify the problem on the eternal “political game” and private interest of parties, since

the choice of construct or not the project would imply, in the actual situation, the possibility of a fall of the government.

To demonstrate how the last analysis is accused to be a political instrument of parties, the chapter include a quantitative analysis of the main items considered, with a comparison with previous analysis like the one provided by the Technical Observatory.

### **3.1. COST-BENEFIT ANALYSIS AND THE RELATIVE APPLICATION TO AN HSR PROJECT**

The cost-benefit analysis (CBA) is the main tool for the evaluation of public investments. The method came from the Welfare Economy but in the years, it has lost the theoretical base becoming a mere estimate exercise.

It constitutes a practical way of assessing the desirability of projects where it is fundamental to have a long and wide view to have an idea on the nearer and further future implication of a project, while considering all the possible side effect of it on people, landscape, regions and industries.

It is one of the most accepted and used tool for project appraisal for large-infrastructure investments in the public sector because it provides a series of benefits, for example it works as a guide for decision maker and it allows the creation, evaluation and comparison of alternatives.

However, it presents some limits in the evaluation such as the implicit assumption that the upstream and downstream markets are efficient, constant prices before and after the investment and the absence of parameters on the income distribution. Furthermore, it is extremely sensitive to the values used as assumptions, an error in any of these can cause a bias in the results or even change the outcome from negative to positive or vice versa.

The CBA method should always ensure the analyst's impartiality, the robustness of the calculations and comparative use and to build rankings between different projects, but one of the most frequent criticism that arise is the possibility for the analysis to be manipulated for obtaining certain results.

The logic behind the cost-benefit analysis is that if all the benefits and costs associated with an infrastructure project can be monetised then the impact of the project itself can be expressed as a rate of return or as a benefit-cost ratio, whether they are realised as financial returns.

The CBA analysis weights the pros and cons of a project or a policy in a rational and systemic process through the creation and evaluation of at least two options "do it or not" and it requires an evaluation at several different scale (nothing, minimum and all). So, it concerns an allocative analysis of resources with the aim to define if a project can benefit or not a community, by checking if it is an optimizing choice capable to bring an overall social benefit.

The economic decision on spending public money for new HSR lines depends more on their capacity to alleviate road and airport congestion and to release capacity for conventional rail where saturation exists rather than the pure benefit obtained through the reduction of travel time and the net willingness to pay a generated demand.

The main problem of constructing a high-speed line is not technological but economical, because of the high cost independent from the volume of the existing demand. This means that for a line with low traffic density, the cost per passenger is very high making the investment doubtful.

If the HSR project is a second-best alternative it requires important effects of diverted traffic on the pre-existing traffic conditions. The modal choice is influenced by the competitive advantage of each mode of transport, but this advantage can be at the same time a technological improvement or can be explained by the charging policy. Indeed, the impact on market share may vary depending on whether the government charges variable cost or aims for a full cost recovery.

### **3.1.1. The last CBA Analysis**

From the settlement of the new government in June 2018, the Turin-Lyon project has become one of the main topics of discussion between the two parties in

charge, with “Movimento 5 stelle” as opposer and “Lega” in favour. To break the deadlock, the Infrastructure and Transport Minister, Danilo Toninelli (who belongs to M5S party), decided to assign to an expert commission, guided by the professor Ponti<sup>12</sup>, the task to analyse the utility of the project through a CBA.

According to the results provided by the commissioners, the project will require costs higher than the benefits, which makes the stakeholders unable to receive the investments provided. The document is concluded claiming that the overall effect of the project excluding investment costs will be 885 billion, value given by two components; the first, is relative to the shift from the road to the rail which is considered socially inefficient with a cost of 463 million. This was found adding to the benefit gained with the use of long and high capacity trains, the reduction of negative externalities, but this amount is smaller compared to the loss of excises and tolls.

The second component was relative to the passenger traffic, which contributes with a benefit of 1.3 billion, so considering the 7.9 billion of investment costs, the loss amount to 7 billion. To this amount should be subtracted 347 million for the

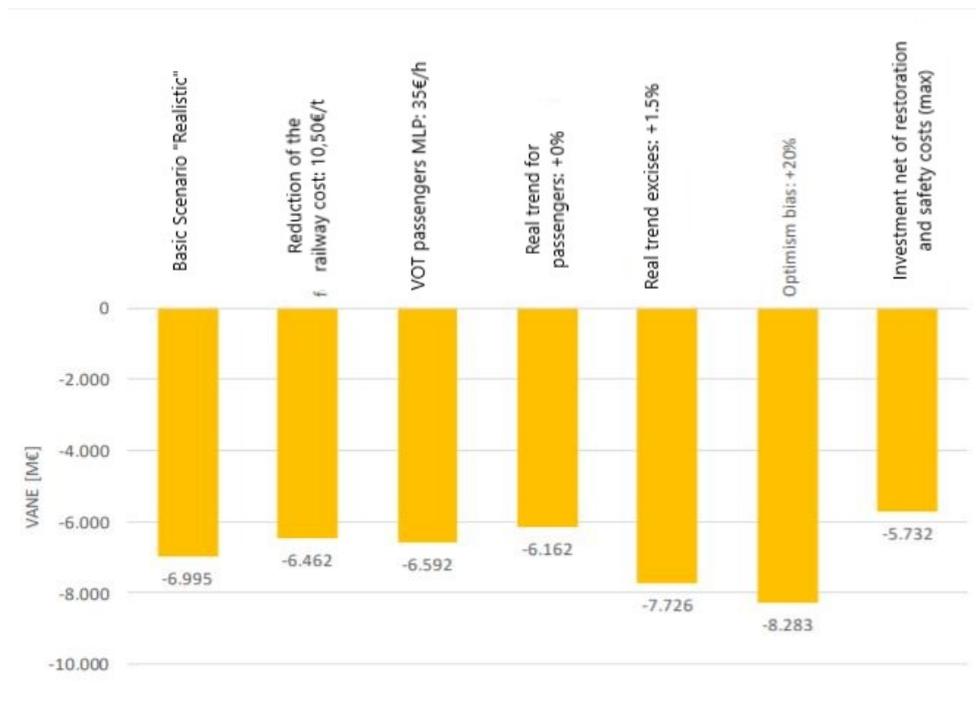
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<sup>12</sup> Marco Ponti - full professor of Transport Economics and Planning at the Polytechnic of Milan, founded the consultancy firm “TRT Trasporti e Territorio” specialized in transport economics, planning and modelling.

works already done and 1,5 billion for the securing of the historical line. In conclusion the economic net present value is estimated to be -5.7 billion.

The analysis was done considering different scenarios (see Fig 3.1.), each of them with distinct results but always negative (with a maximum cost of 8 billion and a minimum of 5) as can be seen in Fig. 3.1. These costs are estimated for thirty years starting from 2030, which is the data on which the end of construction is expected.

Fig. 3.1 Sensitivity analysis of the complete project (international and national section) in the "realistic" scenario with costs "to finish"



Source: Cost-benefit analysis published in 2019 of the railway line Turin-Lyon

This is a sensitivity analysis, that is a reformulation of the NPV under the hypothesis of modifying some parameters from the “base scenario”:

- Reduction of the railway transport cost from 7€/l to 10,5€/l
- Time value for MLP passengers: from € 25 / hour to € 35 / hour, equivalent to if all users are of the "business" type.
- Annual rate of real growth of motorway tolls equal to 0%.
- Annual rate of real excise growth on fuels equal to 1.5% (identical to the assumed per capita income growth).
- Increase in project implementation costs from budget to final balance: from 0% to 20%.
- Investment net of the costs of restoring works carried out so far estimated at 347 million and those maximum "safety measures" of the historical line assumed equal to 1.5 billion.

The commission suggested the economic benefits gained with the flows in the rail line through the realization of the project (which are estimated to be around 50 euros per heavy vehicle) could be obtained by reducing the same import the required tolls for the use of the tunnel of Mount Blanc and Fréjus.

Instead, for what concern the negative environmental externalities the commission declare that the project expected benefit of 5 billion are almost

negligible, in particular for the CO2 emissions they sustain that to obtain relevant results for its reduction is necessary a high grade of technology for vehicles, but once applied the competitive advantage of the railway system would drop automatically.

### **3.1.2. Criticism upon the CBA Analysis**

Several discussions have raised immediately after the publication of the analysis, involving professors and politicians that called into questioning different aspect from the composition of the commission to the method used to make the calculation.

For what concern the criticism about the choice of commissioners, they are accused to not be impartial in the judgement, since they seem to have always been opposer of the project. The fact is that Ponti set four components that are linked to his private company the "Trasporti e territorio srl", for this reason they are accused to be in conflict of interest and all supporters of the road transport mode, in this way the analysis has lost reliability.

Eighteen academics, expert of transportation economy and engineering, have signed a document against the cost-benefit analysis, highlighting the errors and omissions on the applied method.

The first of the two points on which they focus is that the demand forecast and the benefits achievable in the long period should be evaluated taking into consideration the effect provided to all the European countries involved in the TEN-T project, which in the case of the Turin-Lyon are: Hungary, Slovenia, France, Spain and Portugal.

The group of academics sustains that for having a correct analysis of a strategic project is necessary to define how it realize the technological improvement, the modal shift and the enlargement of the European internal market. So it is fundamental to have a wider view, starting from an European vision since the line objective of the analysis is just a small part of an entire project that involves at least 6 countries.

The second point is relative to the lost revenues of the State and motorway concessionaires; the aspect that is matter of discussion is the inclusion of this loss of state revenues among costs, due to the shift from road to rail. Not only because this would be eventually became a transport policy able to call into question all the environmental policy from the reduction of CO<sub>2</sub> to the incentives for sustainable vehicles, but also because the cost-benefit analysis is not drafted for the state but for the collectivity in accordance with the European Union and the MIT. This would imply that all the internal transfers are null because they are not

consumption of public goods and so excises and VAT should not be considered among costs.

Included in the CBA there is a technical and legal report that was published by the lawyer Pasquale Pucciarello<sup>13</sup>, which is addressed to analyse the penalty that should be paid if the decision is to stop the construction of the project. It is calculated that for the interruption of works are necessary 4.2 billion for penalties and reimbursements, for contracts with companies involved in the works, the repayment of European loans and the renunciation of future ones, in addition to possible claims for compensation, first from the French side. These are estimation that Pucciarello himself define as an hypothesis, due to the difficulty to define in a precise way the cost for the dissolution.

Immediately after the publication of this document, the Ministry of Transport and Infrastructure press office reported an error on the percentage between 10% and 30% provided for compensation that does not have to be parameterized on the total cost of the work but on the contracts actually in place at the time (that is about 1.3 billion) which reduces the overall amount required.

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<sup>13</sup> State Attorney in service with the Italian General State Attorney

## **3.2. BRIEF QUANTITATIVE ANALYSIS OF THE ELEMENTS IN THE CBA ANALYSIS**

### **3.2.1. Passenger traffic**

In the public opinion, the TAV project is seen as the high-speed passenger train even if the main scope is the provision of a shift from the road to the railway road. Technically the infrastructure is defined as a mixed line with interoperability technical specifications in compliance with European standard, which means that the line allows the passage of goods trains at a speed of 120 km/h and passengers trains at a maximum speed of 220 km/h.

In the last CBA analysis it has been estimated, under the assumption of the “realistic scenario”, a negligible reduction in the travel time with the realization of the project that is just 2 minutes and 20 seconds for vehicles travelling from Milan to Paris within a day, which go down to 1 minute and 20 seconds for the Milan and Lyon route and just five seconds for the Turin ring road.

The estimated time of the CBA analysis are very different from the ones calculated by the Observatory in the “Quaderno 11” that showed a reduction of the time travel between Turin and Lyon from 3 hours and 48 minutes to less than 2 hours. And consequently, it forecasted that all the distance between Italy and the major European capital as London and Paris will be halved, making possible the linkage of some of the areas with the greatest international tourist vocation in Europe

meanwhile reducing the environmental impact of movements done by airplane which will be substituted with trains.

Furthermore the Observatory proceeded with the estimation of the increase in the number of passenger that would occur once the high-speed train will be active, taking into account not only the potential number of people that will use the line Milan-Paris due to the lower travel time, but also the share subtracted to the air traffic close to 750 thousand passengers (which is more or less the 40%) for the same road. To those data the observatory adds the number of people that would use the high-speed line with destination the European capitals, which amount to 4,5 million.

In the scenario that the commission believes is more credible in the CBA, the flows that the TAV will drain from road traffic are reduced by half compared to the Observatory's forecasts, the demand generated for long-distance passengers is reduced from 218% to 50% of the current one, and the regional passenger demand is halved. Also, in this scenario, the balance of costs and benefits is on the side of the former: the net economic value of the investment is negative for 6.14 billion, which rises to 7.09 if the costs already covered are included.

One of the problems is that in Italy, even if several rail roads are subjected to overcrowding, the number of people that concretely use the high-speed service is low. Because the definition of an HSR requires travel between 250 and 300 km,

while in Italy it has been estimated that the 80% of the demand is for short travel, while for longer road Italians prefer to use airlines.

Several studies demonstrate the difficulty for the estimated number of passengers calculated by the Observatory to be realistic, mainly because of the high cost of the structure that will be partially transferred in the ticket price. If this happens, people will continue to prefer the use of airplanes which are offered constantly at more competitive prices.

A similar case happened with the Milano-Salerno high speed line, where the benefit gained by passenger were counteracted by the high price applied to ticket. An ex-post cost-benefit assessment published by Beria and Grimaldi in 2011 showed that even these high-ticket prices, they were not able to pay back the long-term investment and daily operation costs (Beria and Grimaldi, 2011). It is so expected that the implementation of the Turin-Lyon would probably have the same trend since the expected number of passengers is low, and the line should thus be essentially used for the transport of commodities.

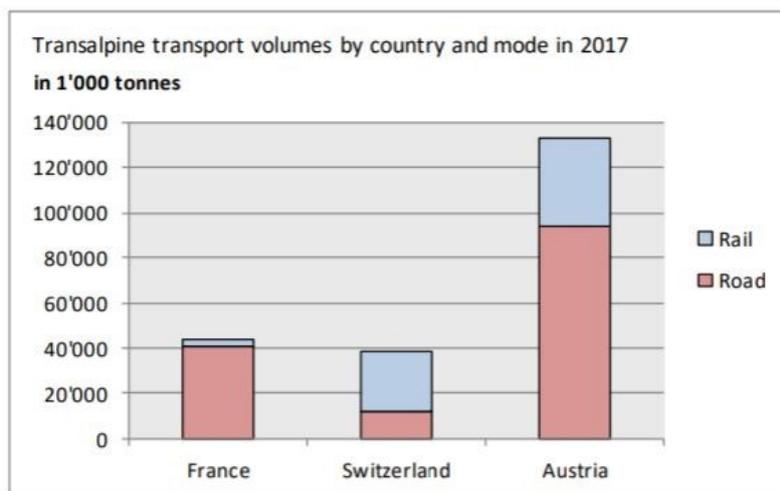
### **3.2.2. Traffic of goods**

The transalpine freight transport volumes between 2016 and 2017 rose of about 3.2% reaching 216.2 million tons, getting to a new record level. Of all the amount

transported, about the 67.5% was carried by road, with a slightly increase compared to the pre-crisis level, the remaining 32.5% were carried by rail.

However, there are big differences between the three countries interested by the exchange through the Alps: in Switzerland, the modal share of rail fell to slightly less than 70% in Austria it was for the first time below 30% and in France it only accounted for close to 8% of all goods carried across the Alps.

Fig 2.2 Transalpine transport volumes by country and mode in 2017



Source: report on transalpine traffic 2017, EU Commission and Swiss Confederation

Italy is reconfirmed among the first importing countries of transalpine goods and services, ranking with a 7.6% share behind Germany (14.8%) and with a similar level to Spain (7.7%). French exports increased by 8.6%, the approximately 35,000

transalpine companies involved in trade with Italy have exported for a total value of 35.1 billion euros<sup>14</sup>.

The overall amount of goods which passes at the crossing between France and Italy in 2017, as reported by the Swiss Federal Transport Office in collaboration with the European Commission, is 44.1 million tons per year for a value of about 76 billion euros. This amount is not only given by the interchange between Italy and France which is less than half, but from all the exchanges that occurs along the Mediterranean corridor of about 40 million tons that includes: Spain, Great Britain, Portugal and Benelux.

The 92.3% of the total traffic between the three main motorway crossing (Ventimiglia, Frejus and Mont Blanc) is done through TIR which amount is about 2 million<sup>15</sup>.

According to the paper “Quaderno 11” the physical interchange didn’t restore the pre-crisis level mainly due to the lack of an efficient railway line, but the overall traffic between Italy and France increased in the last 4 years of about 10%. It must be considered that this increase involved only the road freight that had reached a +12.7% while the railway transportation saw a decrease of 70% of the total volume

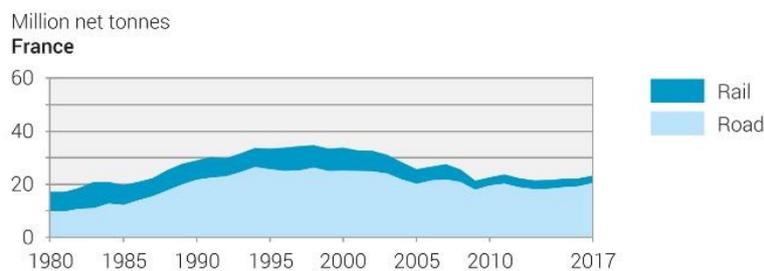
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<sup>14</sup> These data are elaborations of the Italian Embassy on data coming from the ICE Agency with source ISTAT.

<sup>15</sup> Data from the Commission européenne DG MOVE, Confédération suisse Office fédéral des transports (OFT), Observation et analyse des flux de transports de marchandises transalpins, 2017.

in the same years. As can be seen in the Fig 2.2. below, the overall amount of goods transported have slightly increased close to reaching the previous levels, with the road mode that replaces the rail one.

Fig.2.2. Transalpine goods traffic volumes Mt.Cenis/Fréjus-Brenner alpine arc



Source: FOT, FEDRO -Transalpine goods transport 2018

According to the government's CBA analysis, the construction of the High-Speed Railway between Turin and Lyon would have the advantage of making the transport by railway more competitive and affordable than the road one, not through a higher speed but thanks to an increase on the capacity of each train in transit that can be longer and able to carry up 2 thousand tons each one.

The last project presented for the HSR and discussed through an CBA analysis by the commission held by Ponti, is concentrated on a tunnel of 21 kilometres between Bussoleno and Saint-Jean-de-Maurienne in France for a total length of 66 kilometres. With this modified distance it has been estimated a reduction on

time and cost of about 7 euros per ton while the passengers would gain an hour to reach Lyon from Turin.

Has above mentioned, the commission have developed the study of cost-benefit through two different traffic hypotheses. The first one considers the optimistic data proposed by Turin-Lyon Observatory in 2018, to demonstrate the huge imbalance between costs and benefits in the hypothesis that the too high optimistic forecast on traffic would occur. Indeed, these forecasts expect that the goods traffic will increase by 2.5 per cent each year for the next 30 years while the railway will absorb a part of traffic from Switzerland and from the Fréjus. According to this, rail freight traffic should increase from 2.7 million tons a year in 2017 to 51.8 million tons in 2059.

Since the commission evaluated this first hypotheses too much optimistic and unsustainable for the country, they provided a second estimation taking into consideration data on the actual national and European flows; contrary to the first vision, here the expected growth of traffic is halved, reaching 25 million tons per year by 2059.

Although the second vision is more “realistic”, the Commission also here provides an imbalance between cost and benefit. The main cause of the cost unsustainability according to the commission is due to the consideration as a cost of the lack of tax revenue from excise duties on fuel and motorway tolls: that is, if

goods and passengers move from the motorways to the railway, and therefore the consumption of petrol falls, the state will collect 1.6 billion less and the motorway concessionaires three billion in less. This cost item introduced in the analysis, as explained before, has become one of the main criticisms raised after the publication.

### **3.2.3. Creation of jobs**

The problem of the occupation offered by the project has become a point of debate since the last publication of the cost-benefit analysis by the Italian government. Since it shows the lack of convenience of the project as explained above, the critics by the supporters of the project are focused on the missed opportunities, first of all the creation of jobs.

In response to the CBA, a data elaboration was made by CLAS-PTS Group<sup>16</sup> on the basis of TELT information, the analysis was the result of a collaboration between a group of Bocconi professors which are at the same time experts in the Technical Observatory (held by Paolo Foietta great promoter of the project and extraordinary commissioner for the Turin-Lyon axis). The analysis concludes

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<sup>16</sup> The CLAS-PTS Group is a consulting company that supports companies, organizations and institutions. It born from the merge between Group Clas SpA and PTS Consulting Spa in 2017.

explaining how the realization of the TAV would guarantee, in ten years, 52.319 jobs with the activation of all the construction sites.

Historically, the expected level of occupation has not been one of the reasons to construct the line, as it was directly explained in 2012 by the Government that considered the creation of jobs only an “important indirect effect of the commissioning of the line” but only a small part of the overall benefits provided.

This vision is not the same of the Confindustria president Vincenzo Boccia, who shared the data provided by CLAS-PTS Group in the same day in which the CBA was published, claiming that for him the data on the creation of 50 thousand jobs was enough to be considered a cost-benefit analysis to support the realization, in this way he put the Confindustria clearly in contrast with the government analysis. The amount of jobs is calculated considering people directly employed in the project (the ones engaged in construction sites and infrastructure construction) to which are added the number of people that will be indirectly involved.

It has been observed that for every worker directly employed other ten people will find an occupation in Italy for the related activity in a direct, indirect or induced way.

These data are displayed in the following table, from which it is possible also to put in evidence that the 76% of employed will be involved in areas different from the construction.

Tab 2.1. Project impact on Italy, data of occupation per sector (are excluded consumption from non-resident workers and included consumption of Italian workers in the French construction site)

<b>OCCUPATION</b>	<b>DIRECT</b>	<b>INDIRECT</b>	<b>INDUCED</b>	<b>TOTAL</b>
Agriculture	0	371	1.463	1.834
Industry	1.377	4.258	1.794	7.428
Construction	4.761	5.990	369	11.120
Commerce	0	1.781	4.337	618
Logistics transport	0	1.461	1.134	2.595
Tourism	0	895	2.241	3.137
Services to enterprises	2.779	7.197	3.261	13.237
Services to people	0	927	5.923	6.850
<b>TOTAL</b>	<b>8.917</b>	<b>22.880</b>	<b>20.521</b>	<b>52.319</b>

Source: CLAS-PTS Group elaboration on TELT data

This study has been done following a different method from the one used by the CBA, because it is aimed to evaluate the macroeconomic effect of the Turin-Lyon. It is based on the project value added search compared to the cost of it, that means it doesn't take into account some cost and benefit voices while it depends

on variables like the multiplier effect (the higher it is, more optimistic the forecasts will be).

For this reason, there is a huge difference between this data and the actual ones, for which Telt in January 2019 has estimated 800 people working now, among which about 530 directly on the construction sites and 250 between services and engineering firms. In addition, Telt provided an analysis of future occupation with 4.000 direct jobs and many other induced.

A difference can also be found between this data from 2019 with the ones forecasted by the government in 2012 when the estimation was 2 thousand people directly employed and other 4 thousand indirectly. One of the explanations given by the government for the actual 800 rather than the 2 thousand forecasted was the "fasaggio" process, that was the decision to split the project in single parts that inevitably lead to a proportional reduction in the number of employed in each of this independent part.

In addition to the critics raised for the failure of the level of occupation forecasted, another point of dispute from opposer was the nationality of the actual and potential workers. They perceived a lack of guaranties that these jobs were assigned to local enterprises for this reason two laws were applied: the french

Démarche Grand Chantier<sup>17</sup> and the law n.4 of Piemonte Region<sup>18</sup>. Both promote the training of professional figures among the local population for the construction of the TAV project forcing the firms to use the territorial services of room and board.

Thanks to the application of this laws, Telt has estimated that between 2002 and 2010 about the 50% of hired personnel were from the Rhône-Alpes region of France and that the approximately 500 jobs created in 2016 had generated about one million euros for housing and about 750 thousand euros for the food.

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<sup>17</sup> The adoption was taken following the decision of the CIADT (Comité Interministériel d'Aménagement et de Développement du Territoire) in December 2003. Exceptional device already implemented in the past for the construction of the tunnel under the Channel between 1986 and 1994 and currently for the construction of the super reactor Flamanville nuclear power plant.

<sup>18</sup> Regional law April 21, 2011, n. 4. "Promotion of interventions in favour of the territories affected by the implementation of large infrastructure. Construction sites - Development - Territory."

## **4. NO-TAV MOVEMENT**

The Turin-Lyon case is the proof that imposing the construction of a major technological project whose utility is considered promising but risky, without first establishing a transparent dialogue with the population, unavoidably lead to social conflict. Citizens affected by risky constructions, perceives the exposure to a danger imposed by upper level, which advantages are for others, thus the inequity in the distribution of risks and benefits inevitably calls into question the (denied) principles of freedom and justice, strengthening the sense of community and the willingness of individuals to mobilize.

### **4.1. ENVIRONMENTAL IMPACT OF THE PROJECT**

To make a short analysis on the environmental impact of this project is important to highlight that under the Musinè Mount, serpentinite rocks are located that contain asbestos fibers; while the rocks of the Ambin massive, which divides Italy from France, emit a sensible level of natural radioactivity. The area was also the object of study of the Italian Petrol Agency for its potential uranium mining activities.

With booming industrialization of North-West Italy centred on Turin city, Susa Valley became an important centre of metallurgical industries which employed many local residents, but with the beginning of the post-industrial times in the 70s

and with the increase of international globalization, the region moved on to high tech industries and retail activities. This transition led to a decrease in the number of factories operating in the area, and to an increase in the number of people commuting to workplaces farther away.

At the same time the Susa Valley's passageway function increased the transportation of commodities to and from the region. Indeed, in terms of transportation infrastructures, Susa Valley is already highly crossed over by motorways, viaducts, ring-roads, and an international railway line, the Fréjus railway completed in 1871, connecting Turin with Modane. The valley is also crossed over by a relatively new highway that connects Turin to the Fréjus highway tunnel, built in the early 90s and part of the European Highway. Nonetheless, this existing transportation network seems to be inadequate to support high local and international traffic volume going through Susa Valley, this is the reason of the Lyon-Turin high-speed rail proposed that is aimed to alleviate some of the international traffic and ease local commuting.

To the natural risk generated by the dispersion of substances due to the sub-aerial erosion of the rocks containing asbestos and uranium must be added the results of the intensification of human activity with the industrialization of the area.

Studies carried out by the Environmental Protection Agency of the Piedmont Regional Government, pointed out a considerable presence of Dioxins,

Polychlorinated biphenyls (PCB), and Isopropyl Alcohol (IPA) both in the valley's air and soil<sup>19</sup>.

In 2006 a technical report verifying the work of LTF was published by COWI<sup>20</sup> engineering on request of the European Commission, which provided an overall examination of the environmental and public health risks connected with the construction of this infrastructure.

One of the criticism highlighted was the hydro-geological hazards connected with the probability to intercept large groundwater reservoirs during the excavation of two tunnels. The report of COWI engineering expresses some perplexities about the unforeseeable effects that changes in the water table level will have on slope stability, erosion, and flooding if an operation of draining groundwater in the Dora Riparia River would be activated for the excavation of the tunnels. For what concern the radioactive and asbestos hazards COWI did not find rocks containing asbestos or uranium in the 53 Km base tunnel area, but, they found that the 12 km Bussoleno tunnel will actually cross rocks containing asbestos.

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<sup>19</sup> These results came from an investigation made by ARPA (Regional Environmental Protection Agency Piedmont in a survey on the state of soil contamination by organic pollutants in the Susa Valley area, in 2004

<sup>20</sup> COWI A/S is an international consulting group, specialising in engineering, environmental science and economics

#### **4.1.1. Pro-TAV and NO-TAV environmental vision**

Supporters of the project in accordance with LTF sustain that the problem of pollution caused by road traffic must be faced, and with the construction of the HSR the environment would benefit from the shift from road to rail, so they proclaim the advantage of reduced CO2 emissions.

The Observatory, in the “Quaderno n.13” forecasts that in thirty years after the completion of the Moncenisio tunnel, 28 million tons of CO2 will be saved with respect to the road transfer.

Another point on which they focus is the elimination of the bottleneck in road transport anticipated with increased demand resulting from predicted annual GDP growth of 2% until 2020. Furthermore, they sustain an improvement of the safety forms with the reduction of traffic on the roads which the LTF esteem to be about 64<sup>21</sup> due to defects on existing tunnel.

The opposer of the project instead base their objection beyond issues of air pollutants and CO2 emissions. First, they recognize a high amount of materials (estimated to be 7,7 million tons) that will be extracted from the mountain and that require transport and problematic treatments since, as mentioned, they contain toxic substances. In addition, they point out the danger of modifying vital

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<sup>21</sup> Listed as: 39 deaths in Mont Blanc (1999), 12 in Tauren, 11 in Gothard (2000) and 2 in Fréjus (2005).

underground watercourses with the excavation activity and their deviation to the plains increasing the risk of floods, to which is added the loss of cultivable lands and woodlands due to the need of construction space and storage points.

One of the main points on which they focus the opposition is the health risk linked to the emission of uranium and asbestos during excavation for workers and the population living close to the site, to which are added the effect of dust, dirt and noise.

#### **4.1.2. Residents perception**

Based on results coming from several studies of the residents' perception of the proposed high-speed rail there is the evidence that public acceptance of risk in Susa Valley was influenced by the characteristics of hazards perceived by the residents and by the communicative approach used by the project's various stakeholders.

An example is given by a study published in 2009 by Fausto Marincioni and Federica Appiotti that through a cross examination of the resident perception, from various categories, shows that the national government has not be able to demonstrate and convince the population about the benefit of the High-speed line, and since the numerous citizens did not perceived to be listened by the

government they started a long and heavy opposition movement as will be explained later.

According to the study, the 62% of the interviewed feel the government disinterested of the possible environmental and public health implications and so they felt their valley being sacrificed for the egotism of politicians, the appetites of constructors and the interests of Europe (when asked who they thought would benefit the most from high-speed rail, 46% answered construction companies, 35% politicians, and 28% Europe and Italy at large). Most of the respondents tended to get information about the project through local and regional media and directly participating to public discussions organized by local organizations, operation that contributes to create a sense of trust between citizens, these organizations and advocacy group that were considered more available and capable to understand their concerns. Due to this trust in local sources, people isolated from national and international scientific resources, ignored scientific analysis and studies as the one from COWI above mentioned. This explains for example the consideration of asbestos hazard as a very risky aspect despite the COWI indications, while the opposite happened for the hydro-geological impact. This came from the fact that negative effect from asbestos is a common knowledge coming from the grandparents who worked in the excavation of the mountain in the past and so they fear the dispersion of toxic substances from the

construction of the tunnel, while about the hydrological risk this is not perceived as risk since the exposition to floods are rare.

#### **4.2. BACKGROUND HISTORY OF THE NO-TAV MOVEMENT**

In this paragraph the aim is to give a brief reconstruction of the history of this movement through the essential events.

The first form of opposition was in 1991 when “Comunità Montana Bassa Val di Susa” publicly ask for details on the location of the project and complained about the municipalities that were ignored, while the left-wings democrats organised a referendum among their members. Environmentalist and people interested in the area decided to establish a new association HABITAT, among the participants there were professors, politicians, administrators and environmental associations like Legambiente and WWF.

In the following years the opposition continued, directed by the mayors of different municipalities with the aim to enlarge, as much as possible, the participation to other valley administrations, focusing debates on the lack of transparency by the upper level that own the power to decide about the project. During the administrative elections most of the mayoral candidate propose themselves contrary to the project, while the party “Lega Nord” that for the two

previous years was close to this movements decided to move to the opposition because of the election results.

During 1995, there was an attempt to construct a dialogue between municipalities and regions through a new committee, but the NO-TAV exponents continue to protest against their position as a minority in front of decisions.

During the second meeting of the new committee, mayors asked for technical data regarding the forecasted traffic, that Alpetunnel hesitated to give. The final decision of the meeting, in order to satisfy the Community requests was to compare the estimates provided by technicians nominated by the Region and by the railways with the ones nominated by the Mountain Community.

In the following years, several attacks to the detriment of drills were made by unknown, and the press give the fault to “ecoterrorists linked to the fight against TAV”, while the Mountain Community in the attempt to dissociate from them decided to organize a demonstration.

During the period 2000-2005 there was an increase and diversification of the mobilisation, which started to involve political parties such as the Communist Refoundation Party, the Communist party and Verdi, furthermore there was an external openness to demonstrations like G8 and the Social Forum in Florence.

Numerous demonstrations were organized during these years, calling more and more people to protest in front of the locations were makers meet, accompanied

by influential campaign through newspapers and leaflets, all this activity brought to an increase of citizens willing to fight against the project.

A third phase saw the creation of a network with several movements that fought at national level against other great works such as the committee against high-speed in Mugello, movement against Mose in Venice and the one against the bridge over the Straits of Messina. Important was the fact that the no-TAV movement was seen as an example from these groups in relations to the contents and to the opposition to the war as demonstrated with the participation to the demonstration on Vicenza against doubling of the American base.

One of the most important phases for the movement was signed by December 2005 when the lands that were identified as construction site were expropriated through violence by the armed forces from the supporters of the movement. This operation brought to an immediate response by the activist that two days after organized a demonstration held by more than 30 thousand people, with strikes, occupation of streets and stations and the so called "liberation" of Venaus by taking again the control over the lands.

Starting from 2006, with the approach of the Winter Olympics, there is a sort of break, with a return to the analysis of the environmental impact (previously obscured by the Objective Law) and there is the institution as place of debate the

“Institutional Table of Palazzo Chigi” and the “Observatory for the Turin-Lyon rail link”<sup>22</sup>.

With the presence of the Observatory, the relationship between the movement and local institution breaks, with the institutions that avoid attending meetings and demonstrations. Nevertheless, the administrative elections of June 2009 and the election for the Mountain Community “Valle Susa and Val Sangone” saw the dominance of the party list in defence of the territory.

An official reunification between local institution and the movement happened in October 2010 with the organisation of a demonstration that involved about 30 thousand people.

In June 2011, a new expropriation was made by armed forces at La Maddalena and the land previously acquired by the NO-TAV supporters are manned by the protesters. A clash arises between the police and protesters, with the police that used tear gas to disperse the crowd until they obtained the possession of the lands.

In July, NO-TAV committee organised a demonstration in Chimonte, with the participation of several mayors, during which a part of the cortege deviates in the

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<sup>22</sup> part of the points of agreement reached between the Government and representatives of the Local administrations at the meeting at Palazzo Chigi on 10 December 2005 called in relation to the "emergency in Val di Susa" situation.

attempt to reoccupy the lands object of previous conflict. At the end of the collision, with the armed forces that keep the control of the lands, were counted 200 injured among protesters and 188 among armed forces. An event that lead in January 2012 to the arrest of 26 protesters on charges of several violation during the demonstrations.

In 2015, People's Permanent Tribunal<sup>23</sup> issued a moral sentence against Italy for violating the rights of the citizens of Val di Susa. Accusing lack of correct information on the environmental risks, the simulation of a participatory process within the observatory, which according to the sentence, excluded all the local representations, the omission of a serious environmental impact study and the simultaneous dissemination of false data and information, the limitation of freedom of thought, the criminalization of all forms of dissent and the disproportionate use of force.<sup>24</sup>

The last activity undertaken by the movement was a demonstration organized in October 2018, in response to the one organized by the movement pro-TAV, it was the biggest event ever organized.

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<sup>23</sup> The Permanent Peoples' Tribunal, headquartered in Rome, is an internationally recognized civil society human rights tribunal functioning independently of state authorities. It applies internationally recognized human rights law and policy to cases brought before it.

<sup>24</sup> Tribunale Permanente dei Popoli, DIRITTI FONDAMENTALI, PARTECIPAZIONE DELLE COMUNITÀ LOCALI E GRANDI OPERE. Dal Tav alla realtà globale

### **4.3 NO-TAV AS A FORM OF BOTTOM UP DEMOCRACY**

A research made by the Observatory of northwest showed that the majority of citizens from Val di Susa and Turin consider the movement legitimate and the protest democratic.

Most of the population claimed that protesters operate with the purpose of influence in same way decisions that directly and negatively affect them, only a small minority consider protesters as people with the only aim to improperly make decisions that would be up to others.

The legitimacy of the protest is mainly given by the participation at the forefront of mayors, that as described above, actively and intensely participated to demonstration close to citizens, this also allowed to the construction of a direct connection between represented and representatives. While the connotation of democratic movement is given by the protesters vision of the struggle as a political option, with a higher and more authentic democratic legitimacy with respect to political choices adopted by national institutions.

For what concern the way through which demonstrations are organized, the impact of militarisation of lands and the violence applied by armed forces in different occasions<sup>25</sup> brought to a legitimacy of a “local self-organized democracy”

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<sup>25</sup> It refers mainly to the event when lands that were identified as construction site were expropriate trough violence by the armed forces from the supporters of the movement in December 2005

which is proportional to the grade of violence used by the other part, as stated by Della Porta and Piazza "The militarization of the territory and the charges of the police are perceived by the activists as element of legitimization of the protest, thanks to the spread of a feeling of indignation" (Della Porta, G. Piazza,2001).

All this aspect that characterize the way the movement act, make it possible to define it as an example of bottom up democracy, even because people are aware of the fact they are exercising democratic freedoms and practicing democracy through the right of manifestation of thought and right of assembly.

The difference between bottom up democracy and representative democracy is given by the fact that the latter is in some way institutionalised, which means there is a presence of institutions and a formalisation by the law, while the former is characterized by spontaneity and self-organization (M. LUCIANI,2004).

The main feature of the bottom-up type is the collective expression of dissent and willingness to change that rises and is practised far from institutions, contestations and criticism becomes a social process from the moment in which people realize that others are living the same experiences (J. BRECHER, T. COSTELLO, B. SMITH). Institutions are criticized for being incapable of convey transformations and are perceived as an expression of leading elites.

What the member of these movements state is that great part of the population doesn't have the same power to condition the functioning of dominants

institutions, and in order to solve this inequality they try to find new way of self-organized participation.

As stated in the Movement Charter of popular participation Valsusa (MPPV), members uphold that political parties don't follow the mandate given by the voters, going against the meaning of representation. And so, they ask for an active and direct relationship between voters and administrators that goes beyond the electoral moments.

#### **4.4 IS THIS A CASE OF NIMBY SYNDROME?**

##### **4.4.1. Not in my backyard phenomenon**

The first time the acronym appeared was in the mid-1970s in a newspaper article, when it was used in the context of the last major effort by electric utilities to construct nuclear-powered generating stations, located in New Hampshire and Michigan. The article mentioned: "Some call it the Nimby Syndrome. That's Nimby, as in Not-in-my-back-yard"<sup>26</sup>. In the risk literature, is considered as a phenomenon that keeps striking whenever a community has been chosen to host a hazardous facility or a facility that will carry some cost to the residents.

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<sup>26</sup> Gates, Ernie (29 June 1980). "No One Wants Backyard Nuclear Dump". Daily Press. 85 (181): 1.

Sometimes the concept of NIMBY is used in a rather imprecise way to describe various forms of local opposition to facility siting, the aspect that characterizes this phenomenon from other types of opposition is that “by implication raising no such objections to similar developments elsewhere” as cited by the Oxford English Dictionary.

This means that the Nimby is indifferent whether the danger caused by an activity is or is not sited at all, as long as it is not done in her/his own “backyard”.

It became fundamental, the separation of the Nimby syndrome from other types of rejections phenomenon, among which there is the BANANA effect (building-anything-at-all-near-anyone), the NIABY (not-in-any-back-yard) that entails absolute opposition to a project, regardless of the intended location, and the new phenomenon called YIMBY (Yes In My Backyard) related to search of economic benefits of compensation for having the facility close to them.

Thus, this syndrome can be seen as an opposition against an activity that a person can believe to be good for the community at large, like railways, wind turbines and airports which benefits are spread over a large population while the cost/risk is concentrated to the few that live close to the facility, as stated by Sjöberg and Drottz-Sjöberg “not simply opposition, but selfish opposition: a will to let others suffer from a risk and oneself benefiting” (Sjöberg and Drottz-Sjöberg, 2001).

This means in practice that for citizens living close to projected facilities costs are almost always higher than benefits and they are usually better off if the project is either located elsewhere or not completed.

Their grade of opposition increases with the size of the facility and it became stronger when the project is commissioned by the region, because in this case they perceive as they are bearing the costs of disposing other people benefits or waste. It must be pointed out that Nimby campaigns have also positive results, as the effect of highlight negative aspect of a project that can be undervalued and the effect of encourage to consider alternative solutions with optimal benefits for all the parts.

Despite this, Nimby opposition besides blocking the construction of a facility considered fundamental, brings to a huge waste of money in feasibility studies, experts, meeting and time. Furthermore, in some cases fears are exaggerated and a project is blocked because of the disagreement over who will sustain the initial cost of solving a problem.

There are numerous existing environmental conflicts in all the world, that involve local communities committed to contesting the action of public and private entities, this came out by observing the Global Environmental Justice Atlas<sup>27</sup>,

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<sup>27</sup> The Global Atlas of Environmental Justice (EJAtlas) was launched in 2014, and it is an online inventory of environmental conflicts all around the world, documenting environmental justice

developed as part of the European research project EJOLT<sup>28</sup>, which currently records about 2700 cases of environmental conflicts around the world.

#### **4.4.2 Comparison with the no-TAV movement**

According to the Hansen theory, one of the explanations for people that decide to take action against a great work is the ignorance regarding the infrastructure, with protester's reactions considered to be too negative and irrational (Hansen, J. et al,2003).

This is not the case of no-TAV movement since the first public assemblies in Val di Susa, "independent" experts have been invited to participate such as doctors, geologists, engineers and economists who were sometimes commissioned by the no-TAV committee to produce technical appraisals, that were made public by publishing them on the web. This way to operate gives to this movements a legitimacy that prevent them to be stigmatized as anti-scientific, motivated from irrationality and ignorance. But sometimes the ostentation of opposing truth returns an image of the science far from a unitary and independent vision, leaving the parties the opportunity to bend facts and data to vested interests.

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movements against economic activities on a map, aiming to make mobilisation more visible. Furthermore, it highlights EJ claims and serves as a space for activists to receive information and connect with other activists working on similar issues (Temper et al., 2015).

<sup>28</sup> Environmental Justice Organisations, Liabilities, and Trade, it is a project supported by the European Union with the aim to improve the understanding of ecological distribution conflicts in the world, by conducting engaged research with the people struggling in those conflicts.

What is fundamental is the trust, because these movements became the only credible interlocutors since they operate by filling the information gaps leaved by the “official sources”. This makes the population adverse to consider and accept any reassurance by the institutions, also it makes difficult the adoption of politics of compensation as a solution.

Not only through the presence of experts the movement may not be considered a Nimby case, because also the single citizen belonging to the opponents sees a literacy process, with a spread of knowledge able to affect deeply the dispute. The negative effect that this literacy can bring is a radicalisation of the conflict between two different truths, which can be avoided through an inclusive process.

An exchange of these knowledge between citizen has been done with the institution of places were the parts could meet and compare data they obtained, an attempt was the creation of the Observatory, which was approved by local administrators because they saw in it a possibility to be listened by upper level, while citizens didn't mainly because of the presumed non-neutrality of the President and for the non-involvement of citizenship (Algostino, A. 2011).

To be efficient these “new meeting places” must present some aspect in accordance with the theory of constructive conflict transformation by Suskind e Cruikshank:

real stake, the discussion must precede the decision in order to let the technical agreement influence the decision itself; internal and external transparency of data and decisions; implementation commitments which means a responsibility to give an immediate and concrete translation of the agreement (Suskind, L. and Cruikshank J.,1987). In the TAV case no one of this condition was fully respected, bringing to a deeper distrust to the project and administration.

But just the attempt to construct and the presence of places where representative of the people and citizens itself could meet and discuss with the administration and promoters about the project is another element that makes the no-TAV movement different from a Nimby case.

#### **4.4.3. Nimby and Cost-Benefit Analysis**

Nimby movements can be considered as part of the distributional problem of a great work, that is the spread of cost and benefit among citizens. This is due to the fact that they raise from the perception of the project distribution of costs at their expense, for the benefit of others.

Environmental conflicts highlight the distributive dimension of environmental politics and location choice, making clear the difficulty, nowadays, to divide the negative externalities of constructing a risky and unwanted infrastructure.

The Nimby syndrome when arises should be seen as a signal of a lack of communication with the people on choices that affect them. The TAV experience makes clear that in absence of places where it is allowed a clear dialogue between citizens and authorities, every attempt to deny or lessen possible risk of an infrastructure is perceived as a “trick”, developing a climate of mistrust towards the government, where the local committees put themselves as the only credible subjects. As this happens, there is no chance to recover a dialogue with these parties that ignore every type of reassurance and compensation system. This is also because they focus their attention only on the “quantitative” aspects of the project (costs, creation of jobs, funds, benefits or losses due to the infrastructure) which they use as the reason and at the same time as the justification to their inflexible opposition.

This explains that an excessive use of the cost-benefit analysis by opposing movement is not appropriate since it is a type of analysis not able to show the problems of distribution of these calculated costs and benefit, which instead should be the reason of opposition of these groups.

Movements who base their opposition only on results of CBA, can bring to situations in which they are contrary to the construction of public goods which benefits are able to advantage all the community but since they have the amount of costs higher than benefits decide to stop it regardless.

## **5. PUBLIC CHOICE THEORY**

### **5.1 DEFINITION**

The School of public choice, established in the United States towards the end of the 1950s, has as object of analysis the decision-making mechanisms of political institutions, studied by applying to decision makers hypotheses, similar behaviour that would occur with private individuals.

In general, the theory assumes that individuals like politicians, bureaucrats and voters when in condition of making a choice have a preference among all the alternatives and they decide to take the one that is more coherent with their preference.

It should be considered, according to the theory, that political actors make their decision oriented to private interest rather than public benefit, this is the reason why politicians and bureaucrats are accused to be pushed by self-interest as it happens for private individuals. Following this vision of politicians, they don't decide to present themselves to elections with the aim to realize their programme, but they decide the programme itself in order to win the elections. This is the same process that happens to voters which decide to vote those that can give them benefits rather than those that are focused on the collective welfare.

The methodological individualism theory opposes the view that the community would be an autonomous entity capable of making decisions and argues that the social sciences should base their theories on individual action. So, adopting this theory it is supposed that individuals are the unit on which the political theory should be based on, as claimed by one of the exponent of the Public Choice theory Ostrom Vincent<sup>29</sup>. "It is individuals who perceive, think, evaluate, choose, and act. Organizations are nothing more than aggregations of individuals to realize some joint advantage or common good." (Ostrom, 1977).

About this, another of the main exponents of the public choice Buchanan<sup>30</sup>, sustain that it is wrong to assign the faculty of choice to organization like the parliament or the government because it hides the difference between making a choice by an individual and by a community of people.

The assumption given by this methodological individualism, don't admit that an individual can slight from the others and their preferences, departing thus from the individualist choice theory.

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<sup>29</sup> Vincent Alfred Ostrom (September 25, 1919 – June 29, 2012) was an American political economist and the Founding Director of the Ostrom Workshop based at Indiana University, he focused in particular on the study of fragmentation theory, rational choice theory, federalism, common-pool resources and polycentrism in government.

<sup>30</sup> Buchanan, James McGill. - US economist (n. Murfreesboro, Tennessee, 1919 - Blacksburg, Virginia, 2013), is the founder of the "theory of public choices", for which he won the Nobel Prize for economics in 1986.

In order to apply the concept of the methodological individualism is necessary to define and consider the individual as rational, which means that he must have preferences and give them an order, so to be coherent when he has to decide. The rational individual then, will make his choice, based on his utility function, with the aim to reach the maximum utility for himself.

With these two main aspects in consideration, a coherent public choice should be able to distinguish between individual and collective choice, since in the latter the criteria that gives coherence and motivation to individual decision can fail.

Only if all the individuals that compose a decision group have the same preferences it is possible to have a unique result able to satisfy equally all of them. Since this is unlikely to happen, it follows that it cannot exist a universally recognized aggregation method as the correct one.

#### **5.1.1 Role of rules and the importance of consensus**

The fundamental problem of public choices is given by the possibility to see only the results of the aggregation, which is based on the rules adopted. These rules are at the same time the tool for obtaining the choices and the obstacle between individual and collective preferences.

Rules are not always able to provide the satisfaction of all the individuals, but they allow the stability and coherence of choices through the acceptance of

compromises about the equality of citizens and the equal value of their preferences.

Buchanan in "The calculus of consent" define the State as a voluntary institution, by stating that rules must be taken under a prior agreement defined as the "social contract" through which people agree to be submitted to government powers knowing that all the other are in the same condition (Buchanan, 1962).

An individual once decides to join with others to live in safety, peace with the possibility to benefit from the property, decide to lose his proper natural liberty, this is the base for the construction of a political community through a volunteer consensus.

This consensus can be seen in two different ways making a difference between its relevance of fact and law. The law relevance is founded on the concept of the political community as a union of people and not of subjects, in this way the consensus became a constraint. Once they are translated into institutional mechanisms they assume a relevance of fact: for political power the acceptance became a resource.

So, the consensus became essential for the existence of the democracy and institutions and consequently the object of political parties. Public policies became a type of "exchange good" through which rulers acquire consensus and take a part of the voters' income with tax collection. What makes voters willing to vote and

pay with taxes the politicians, is the obtaining of a retirement system, national defence and public services, but the problem is that the equilibrium point between public policies demand and the relative supply by government can generate situation in which the private interest of politicians prevails on the citizens welfare. This happens because public choices allow big transfer of resources from the population to restricted groups of beneficiaries (politicians, bureaucrats or interest group) that aim to exploit this opportunities for maximize their utility, even if it will require the abandon of their preferences.

### **5.1.2. Role of voters**

Analysing the electoral competition from the demand side, a fundamental role is played by the voter that to obtain public policies able to increase its welfare is willing to give away part of his income in the form of taxes.

But as pointed out by Downs, there are two important aspects that limit the relationship between voters and elected. The first one is relative to the “rational ignorance”, according to which the voter decide to not be informed, this is identified as the cost of voting which is very high due to the large amount of time necessary to read all the programmes, study the candidates and study all the ideological positions.

The second aspect is called the “rational abstention” because of the relative cost higher than the possible benefit obtained (Downs,1957). This benefit is calculated as the impact of the electoral programme on his welfare and the relevance of his single vote which is very low due to the high unlikelihood for an election to be won for a single vote.

According to Downs vision the abstention should be the most rational choice, but in practice it is possible to see the number of voters higher than what expected. This happens mainly for to the presence of political parties that cut the cost of obtaining information for voters and to the vision of the vote as a “consumer good” through which people gain satisfaction just from the exercise of his political right and in some cases from the perception of having contributed to a strength of democracy.

### **5.1.3. Behaviour of Politicians**

Following the Public Choice theory, politicians play an important role only when they have the power to take decisions able to affect everybody thanks to a proxy given by the voters. Downs state that the priority of a politician is to gain enough votes to obtain a public role, their proposals are consequently aimed only to satisfy their personal interests that will be reached only after being elected (Downs,1957). This vision is totally in opposition with democratic theories in which

the elections are the place in which are expressed and sustained the common interest between candidates and voters.

Considering the theory of the median voter<sup>31</sup>, the elections are won by the party that is able to obtain his vote, but since all the parties know this, their electoral strategy have the tendency to converge. This explains the arise of political parties that, in order to gain as much vote as possible, propose wide electoral programme and without ideological discriminations trying to catch as much categories of voters as possible.

Although the median voter model implies that the median voter gets what wanted, with limits on the level of information he has on a particular political area, it does not imply that public policies will be efficient in terms of welfare. Mainly it depends on the fact that minority excluded by the definition of median voters, will be affected by externalities of majoritarian policies, furthermore there is the possibility of the presence of voters that are able and willing to compensate others in order to let policies, different from the ones required by the median voters, to be adopted.

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<sup>31</sup> The median voter theory is an abstraction of a particular form of preference aggregation based on each actor in a group attempting to maximize their own utility. Under certain constraints, this behaviour results in the median voter in the group having the ability to cast the decisive vote in a contest. Thus, candidates vying for the votes of the group are both better off when they appeal directly to the median voter.

About this, it must be considered the possibility of strategic games of interest groups and bureaucrats to manipulate voters through the diffusion of biased information in policy areas where the voter is unlikely to be well informed.

Once politicians enter in institutions, their aim became the maintenance of the possibility to be re-elected in the next elections, this explain the presence in politics of several behaviour like log-rolling, lobbying activity, excessive public spending by government and corruption.

For what concern the excessive public spending applied by governments, one explanation is given by the evidences that sees politicians preferring an increase in public expenditure to obtain people consensus (Mancur Olson,1983). Olson explains that between the reduction of tributes and the increase of expenditure will always prevails the latter, because group of people with specific interests and with a possibility to benefit from specific legislative measures, such as the imposition of duties or construction of public works, will organize themselves to put pressure on legislators.

This is in line with the overall concept of the public choice that consider the benefit from a public choice as concentrated in the hands of few individuals, while the costs are spread over a large number of people that makes them negligible for the single, who in this way has no incentive to fight for its abolition.

For this reason, the cost that the owners of interests must sustain for the organization is low due to the small number of people involved, unlike the common citizen that even if affected by these choices is not able to oppose because of the costs for fight against a single measure is higher than the benefits they could obtain and also due to the rational ignorance above mentioned.

Even easier is the case in which the choice is relative to the enlargement of the public debt for which costs are sustained by future generations that do not have the possibility to express themselves through the vote.

For what concerns, the log-rolling activity it can be defined in two ways: explicit and implicit. The explicit version is relative to the situation in which exist a clearly defined trade of votes among politicians, for example to obtain a large publicly funded project in exchange of support for other project desired by the other part. The implicit logrolling instead is more complex and can be defined as the practice of including in one statute or constitutional amendment more than one proposition coming from different interests, inducing voters to vote for all, notwithstanding they might not have voted for all, if submitted separately. In this way the politicians that wants the approval of a law of its interest must vote in favour of several other laws.

#### **5.1.4. Interests of bureaucrats**

According to the definition of William Niskanen, the bureaucrat is the subject that among his interests has wage, work conditions, public reputation and power. The possibility to take advantage of all this depend on their ability to attract and obtain public sources in their field, because the more resources they obtain to manage, higher will be the possibility to be satisfied and to make career (Niskanen W., 1975).

While the bureaucrat is interested in the allocation of resources, the politician aims to obtain from the administration the adoption of decision at the lower cost possible, so there is a direct exchange between this two parties defined as a “bilateral monopoly”, in which the bureaucrat side is in advantage position in terms of information with respect to the politician. This imbalance allows the bureaucrats to set the level of resources required at the maximum level of the amount allocated by politicians.

But following Bendor and Moe, it is necessary in this case, that bureaucrats take into consideration the interest of producers and politicians strictly linked to lobbies in order to not go against them (Bendor and Moe,1985).

A study by Frey B. and Pommerehne W., analysed the influence of public bureaucrats on government sector outcome through their capacity as voters. They

defined the options available to them to influence government sector outcomes in different steps, starting from the “preparatory phase” for collective decision in which they propose public expenditure limits beyond the level chosen by the median voter, that will be accepted due to the lack of a better choice.

During the phase “of legislation” they can influence the process by becoming member of the Parliament, in this way they have the opportunity to be promoted as public officials and they can take advantage of the time off granted while perceiving the same income. Furthermore, bureaucrats while exercising their power on law-making function, exploit the possibility to be part of unions and interest groups so that they use the public sector vote for or against a proposition or party with a stronger power (Frey B. and Pommerehne W.W.,1982).

## **5.2. INVOLVEMENT OF CITIZENS IN PUBLIC DECISION ABOUT INFRASTRUCTURES**

Managing conflict is one of the main challenges that the public management must face, the decision about letting citizens participate to the project of a great work can have positive or negative results.

In the last years, the traditional hierarchical approach to decision making, in which there is a top down order and citizens are excluded, has been replaced by a

modern approach that is the “Multilevel governance” through which is allowed an active participation of those classes.

It is wrong to consider the second approach as always better than the first one as several cases have demonstrated, but nowadays several participative practices are recommended by international organizations and promoted by European programmes. They are not proposed as direct democracy tools since the final decision is left to representative institutions.

To gather a large amount of people, let them dialogue and face conflicts is necessary that these participative practices create places in which they can discuss and where they feel free to express themselves.

For long time administrations that wanted to involve the population, organized public assemblies, and from the other side they were asked from citizens that wanted to express their opinion.

The problem is that this type of practice is not able to encourage dialogue but mostly a comparison, due to the tendency of separate the discussants from the participants who passively take part.

From these critics, several alternative methods have been proposed which focus on the creation of a place of dialogue able to let actively participate all the people interested, even in the infrastructure field where are applied spontaneous

practices of collective action and promotion by institutional sponsors of discursive arenas based on the principles of deliberative democracy.

There are three dimensions on which the discussion over infrastructure tend to focus and they are the relevance of the work and the level of the protest, which both can be local or global, and the perception of utility. Works that are not subject to possible alternatives are less relevant and consequently less subjected to contrast by the opposers, while if citizens are able to find a different way through which the work can be done or if it is perceived as useless they will activate to counteract the construction. Once this happen the work became an object of global interest, as happened for the TAV case, and the opposers sustain their positions focusing on the inequal distribution of costs and benefits, leading the attention on the interest of power people and shifting their defence from the local to the general community.

In most cases, indeed, all the discussion is centred in a shift of the interest area from local to global and vice versa, since also the institutions have the tendency to reduce to a local relevance the movements against a project, for example stating that the consensus was obtained thanks to people external to the community affected.

### **5.2.1. Ex-ante and ex-post inclusion of citizens**

To avoid the rise of opposer movements , there is the tendency and the preference to keep substate levels of government and citizens out of the decision board, in order to avoid the rise “tragedies of anticommons”<sup>32</sup> and joint decision trap<sup>33</sup>.

Several experiences demonstrate that the exclusion of opponents from the decision process do not avoid the rise of protest movements, but only postpone after the decision is taken by upper level. In this way, they try to impose their vision and requests through legal or even illegal means, protests and demand of compensation.

In addition, the opponents in most cases are excluded by law that sets specific regulations for these decisions, leaving the power to highest level of authority as the state or the EU, excluding any type of lower representation and policy sectors. The choice about the moment and the way through which the dialogue with local communities should be activated can be summarized in two approaches: *ex-ante* and *ex-post*.

Until the 80s, decisions about the construction of a great work, with potential negative effect for the population, were taken considering that this works with

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<sup>32</sup> The tragedy of the anticommons is a type of coordination breakdown, in which a single resource has numerous rightsholders who prevent others from using it leading to a underutilization of the resource, so to prevent a socially desirable outcome.

<sup>33</sup> It is a situation in which there is a tendency for government decisions to be taken at the lowest common denominator where the decision-makers have the ability to veto the proposals.

collective benefits had to be built at any cost and so putting general interests first of the community ones. Calculations relative to costs and benefits of a work were entrusted to experts that were judged impartial and rational unlike opponents, then it was a task of the proponent to find a meeting point with them.

This is the typical dynamics of *ex-post* approach, which is preferable to use when the construction cost is higher than the negative utility perceived by people, leaving the decision on the location to the manager of the work. The problem comes out when it is time to let the community accept the project, because the manager found himself in a lock-in situation, where he should sustain an high cost if he decide to abandon the project or to change the location giving an higher power to the community which in turn have the possibility to ask for compensation, based also on the opportunity cost in case of abandonment.

The outcome could be the recognition of too high compensation or the choice of the manager not to undertake the investment: the infrastructures would end up costing too much.

A practical case through which is possible to see the application and the consequences of this approach is the implementation of the TEN-T project. From the beginning in 1991 to 2003, there was no attempt to open the discussion to lower authorities, leading the European Commission to admit that a cause of the block of works was this ineffective multilevel governance, unable to cope with

different competences across levels. In 2003, with the publication of the Van Miert report<sup>34</sup> even if no official participation of locals was allowed, were recognized the existence of Nimby movements. After it, it was open a participatory phase in order to give the word to those affected by the project, but it was criticized to be just a formality without any effect on higher level decision.

With the Decision No. 884/2004/EC, of the European Parliament and of the Council, it was set the figure of an European Coordinator that in addition to promote joint methods for the evaluation of projects and provide periodic reports to the Parliament, should consult regional and local authorities, operators and representative of the civil society in order to study the demand for transport services, possibility of investment funding and the services that must be provided. The problem was that this openness occurred too late, because decisions about the project were already taken, and these consultations became just a formal conversation without real effects.

Even for what concern the Turin-Lyon case, the openness to the debate, implemented also by the institution of the Technical Observatory for the project, had small effect due to the later institution as seen in the previous section. Indeed,

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<sup>34</sup> Report presented to the Commission on June 30,2003. In which were identified a limited number of priority projects taking into consideration: economic viability, impact on mobility of goods and people, impact on cohesion and sustainable development;

the dialogue lead to a few changes of the project, assurance of transparency of the procedure and to a better and wider communication with the population.

Many local representatives and movements refused to go on with discussions, leading in some cases to the use of political force to allow the continuation of works.

For what concern the second approach, *ex-ante*, it should be applied in presence of a negative utility perception higher than construction costs, so that the best decision depends on the community preferences. The problem that can arise is the attempt of the community to avoid the construction by exaggerating the negative externalities or asking for high unsustainable compensations.

There are several methods that can be applied to let communities declare their true preferences, they are based on an auction mechanism: each community must be able to assign a cost to the negative utilities caused by the localization. So, each valuation is composed by a private component based on the community preferences and a common part linked to technical aspects of the infrastructure. On the latter each community has an individual vision due to the knowledge they have about it, this aspect makes the instrument of auctions less efficient because the community that will be assigned for the construction won't be the one with lower costs but the one "more optimist".

A way to avoid the temptation to cheat on the cost perceived, depend on the manager who has the power to give information able to guide the community on the evaluation. But to let this happen there must be a reciprocal trust as it happens in a typical negotiation (Dewatripont e Tirole, 2005).

The functioning of an auction mechanism presupposes that these different interests are aggregated previously so that a single interlocutor for each possible location it is identified. This makes preferable a negotiation approach where there is not the necessity to make an anticipated agreement between stakeholders.

The negotiation method is characterized by high transaction costs for the discussion with several stakeholders and for the necessity to consider all the proposal that comes out from the discussion, so in presence of fragmented interests and uncertainty of competences among institutions, the benefits coming from the use of this method are lower than the auction method.

### **5.2.2. Public Engagement as a solution to DAD**

DAD is the acronym for Decide-Announce-Defend approach, it was mainly used for the location of waste sites beginning in 1980s. In most cases is seen as the cause of the rise of conflicts, delays and cancellation of projects (M. Wolsink,1996).

According to this approach the administration promoting the project Decides with its experts the action to be taken, when the choice has been made it Announces it to the public and at the end it will Defend the choice from the criticisms (Cascetta and Pagliara, 2013).

In this way there is a total exclusion of the public from decisions, which is considered only as a source of conflict and potentially hostile. The only opportunity for citizens to participate is to bring these decisions to court increasing the level of conflict and making more expensive their revision.

This model was considered successful due to the simplicity and the speed of the decision-making process because of the small number of people involved and the possibility to adopt decision not approved by all the members thanks to the hierarchical and powered structures. But is clearly inappropriate for situation in which a wide range of technical, social, cultural and economic factors are able to influence the situation and the various possible alternatives to it and where there are people on which depends the success of implementation.

In their paper, Burall and Shahrokh, provide nine recommendations for engaging the public in the decision-making process. Among them it is clearly said that the provision of feedback to the public on the results of decision-making will strengthen the understanding and legitimacy of policies in contentious areas,

giving an idea of the impact they are having on the policy (Burall and Shahrokh, 2010).

Starting from the evidence that an imposition of decisions over citizens or the tardy inclusion of them into the decision process lead in most cases to the rise of opposition, waste of time and resources, numerous alternative approaches have been proposed and studied. Public Engagement (PE) can be considered as the process of involving stakeholder concerns, needs and values in the transport decision-making process. During the decision-making process, information is exchanged between stakeholders and promoters with the aim to make efficient the planning.

It is necessary to consider that there are different types of stakeholders, each one should be treated differently for example the ones with a potential veto power must be informed and involved, while is necessary to keep constantly informed the institutional ones.

Kelly at al. propose five levels of PE, starting from "stockholder identification", followed by their "Listening and stakeholder management" of the current climate and their expectations. The third phase is the "Information communication" that opens the phase of "Consultation" where decision maker takes into consideration the visions of stakeholders and improve the project through them. At the end

there is the “Participation” step where interest groups are directly involved and became part of the project choice.

An example is the EDD approach, that is the Engage-Deliberate-Decide, promoted by the Sustainable Development Commission and by the Ministry of Justice, in which people are invited to actively participate in the early stage of decision for understand the complexity of the work and to create solutions. Once a decision is taken, since it is largely shared among participants the efforts for the defence will be minimal and there is the possibility to a following implementation.

### **5.2.3. The Italian model and the actual situation of suspended works**

In Italy is required a complex authorization process, that involved several public administrations. The location choice is taken only after a negotiation between specific subjects, that are: all governmental levels directly concerned in the territory, sectoral administrations operating in the field of the touched interests like the health and the environment and the manager of interfering works.

There are case in which the consensus of the region and/or province is surpassed by a delegation to the Council of Ministers, which is required also when the are internal conflict among sectoral administrations which do not have a veto power.

Mechanism for the information and involvement of citizens are not present in the legislation, the only way for the people to oppose is by sending written requests

that have no influence on the final decision. The procedure is also made inaccessible due to short time required and a difficulty to put them in practice, reducing in this way the possibility for an opposition.

Once the choice about the localization of the infrastructure is made, some obstacles rise, during the realization phase, due to numerous administrative acts that are provided by minor local authorities for example the ones concerning the environmental compatibility. Indeed, these authorities to hinder the procedure can enlarge the time for the release of these documents and require the withdrawal of previously released documents.

Because of the procedures complexity and the discretion left to competent administrations higher is the probability of the rise of contentious between firms, local authorities and citizens, slowing the overall process and increase costs for the realization.

In the last years, the Italian system provided a strengthening of the local powers through the new Title V of the Constitution, in which the consensus of regions is required for specific infrastructures and more power are given to local powers for the territory governance. Furthermore, it was extended the intervention of local powers for works seen as fundamental against environmental catastrophes.

These efforts were not enough to unblock the numerous suspended infrastructures or to the speed up their construction; the Nimby Observatory

Forum<sup>35</sup> counted 317<sup>36</sup> cases of works in abeyance, down compared to the data of 2016 by 11.7%.

For what concern the contested sectors, 2017 is again confirmed the primacy of the energy one, with 57.41%, waste treatment followed with 35.96%. Even in the face of a decline in the disputed plants, the energy sector recorded an increase in disputes of 1.22%, while waste treatment contracted by 3.93%. The regions most affected by opposition to infrastructures are Lombardia, Tuscany, Emilia Romagna, Puglia and Veneto.

Besides the TAV case, there are some cases which have national relevance at the same level and are locked, but for which, as explained above, is not right to give all the fault to protester movements and also not all these movements can be defined as Nimby case, since they should be considered as a consequence of the management of public choices.

Among those cases, several need a particular attention as the one in Trieste with the Spanish regasification terminal, where the procedure was blocked by local authorities at the last stage for the presentation of the Single Authorization, in 2013 since the project was declared incompatible it was excluded by the list of

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<sup>35</sup> National database that since 2004 has been monitoring the situation of the oppositions against works of "public utility" and industrial settlements under construction or still in the project.

<sup>36</sup> This number was reported in the twelfth edition of the project, edited in 2017

priority projects. After that in 2016 the Ministry of the Environment put again the attention on the utility of the work, the region expressed negatively about it bringing to a definitive stop to the construction.

The gas pipeline in Malendugno, Salento, also known as TAP, which is actually blocked by local authorities (included also the president of the region Michele Emiliano) and subjected to protests by environmentalist groups that accuse the poisoning of the water table and the destruction of landscape, even if the project received all the authorizations required.

The project called «Monte Cavallo» was proposed by Shell Italia E&P in 2005, when it had submitted a request for a permit to search for liquid and gaseous hydrocarbons. In 2011 the oil company asked for an Environmental Impact assessment, but the permission was not given due to the protests of municipalities and associations. After 5 years, Shell waive to the required assessment in order to apply some modifications to the project deceiving protesters of a renunciation.

Saras, a Cagliari oil company, sustained the presence under the Arborea (Oristano) plain of a large gas field. But the nimby committees, the Region and the Sardinia Tar have even prevented the drilling to understand the subsoil.

## 6. CONCLUSION

From the 90's, citizens committees have been a fundamental actor in conflicts related to the construction of infrastructures, where the opposition was mainly focused on damages for the environment, as in the TAV case. However, they cannot be defined as exclusively environmentalist protests, since they involved also the protection of artistic and cultural heritage, health and life quality.

These groups were able to involve not only residents affected by the construction, but also environmental associations, local administrations, students, academics and scientists that were able to bring their knowledge and support, strengthening the community and giving them a more reliable connotation.

The organizational fragmentation of the committees and their territorial limitations partially demonstrate an overall weakening of the collective identities and of the government's ability to detach from the immediate interest of the representatives in order to guarantee the pursuit of long-term objectives.

From an 'anti-political' point of view, the committees are presented as a product and cause of fragmentation of the political system and at the same time as an effect of the worsening of the inefficiencies of the administration. An administration that considering the weakening parties, fail to legitimize itself due to the presence of many particularistic interests. These inefficiencies lead to

mobilizations and counter-mobilizations that wind up with a block of the system, preventing the achievement of collective goods.

In a more optimistic view, the committees are considered an entity able to work alongside with parties, interest groups and associations, helping to enforce the “voice” of those people unable to affect the decision-making process. In this way to political parties will be left the opportunity to decide which of this committee should be sustained.

The environmental conflict is an aspect common to all the developed countries, until now no one found an optimal solution, but there are some cases with quite good results, where the best way to follow is the opposite to the one suggested by the common sense. Because the most used solution is to simplify, centralize and delegate, but this imply that the decision maker can identify and represent the general interest and not be affected by private ones.

Since the definition of a general interest is almost impossible, due to is composition of pressures and requirements by individual and groups of them, the best way to reach it is through a method able to let people discuss and make comparisons allowing all the people affected to take part.

For what concern the TAV case, since it was adopted an *ex-post* method, where citizens started to be considered only after the process had begun and meanwhile the strength of commitments have increased together with the personal interest

of politicians linked to private firms, the conclusion of works seems to not arrive if no changes are made in the system.

It is necessary to understand the real strategies of each actor and the different principles of performance, public and private actors do not pursue the same goal, and they define the problems from different points of view. But decisions are always somehow the effect of a collective process.

So, a way for having a shared solution it is the structuring of problems through the evaluation procedure shared by the various stakeholders with a dialogue and comparison among the participants.

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