



**International Seminar on Road Financing and Investment  
Ngurdoto Mountain Lodge in Arusha, TANZANIA,  
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**Public-Private Partnership (P.P.P.)**

## **1) Introduction**

First and foremost a warm welcome to all participants. My name is Massimo Marconi and I am responsible for design department of Stretto di Messina, the company entrusted with the design, financing, construction and operation of the bridge on the strait of Messina, which represents the permanent link between Sicily and the Mainland.

### **Slide 1 Bridge on the Strait of Messina**

I am here on behalf of Anas, the Italian company managing the Italian road and motorway network of about 26.500 km and one of the main shareholder of Stretto di Messina.

It is a pleasure for me to be here to present the subject of the public-private partnership on the Italian infrastructural market.

### **Slide 2 Contents**

My presentation will focus on three main subjects: : the first steps of PPP (public-private partnership), the Italian administrative instruments and rules of law and finally the present situation in the Italian market. With an eye to the exchange of experiences, I will also illustrate the financing plan developed for the bridge on the strait, which many international observers consider innovative and also applicable to other infrastructures.

## **2) First steps of PPP**

### **2.1) Italian Infrastructural Trends**

### Slide 3 Italian public invest % on GDP

Starting from 1950, three significant growth stages can be clearly identified (in the first half of the Fifties during the post-war reconstruction and in the following periods: 1972-1975 and 1979-1981).

A steady decrease, common to the whole European Union, but particularly strong in Italy, started in 1992. An all-time low was reached in 1995, when a restrictive fiscal and monetary policy had to be implemented to have the public accounts match the criteria of the Treaty on the Monetary Union signed in Maastricht in February 1992.

Since 1995 the investments have been increasing, even though the growth has been moderate. The analysis of the Public Administration investment distribution has shown that the road system attracts most investments; this is especially true for the large infrastructures that require significant financial resources for their completion.

The growth of the modern economies implies the need to allocate larger amounts to the infrastructures, hence the importance of these initiatives for the public finance, even for the most powerful economies, and the difficulty in supporting these initiatives due to the tax increase that in many countries, and Italy in particular, is almost unacceptable and might eventually jeopardise the objectives of the economic growth.

## 2.2 Italy towards the PPP

In addition to the above-mentioned reasons, common to all countries, the progressive and continuous reduction of funds made available by the Public Administration at central, but also at local level, has played a key role in Italy.

The parameters imposed by the stability pact to the European Union countries have led to the implementation of strict measures aimed at reducing the public expenditure.

The ever-increasing cuts, vis-à-vis the growth of the current expenditure for personnel, have almost zeroed the margin for new investments.

This framework has often favoured the use of totally or partially private resources.

In describing the reasons that have favoured the growth of the P.P.P., it is essential to highlight that the public-private collaboration is certainly beneficial to the public administration, but it is not the most appropriate solution for any project.

The Public Administration (P.A.) should evaluate on a case-by-case basis whether partnership can provide a real surplus value compared to other options, e.g. a traditional contract or a loan.

In any case, a risk assessment is always recommended to evaluate whether the involved subjects can guarantee a proper financial backing.

## **3) Italian Administrative instruments and Rules of Law**

### 3.1) Italian Rules of Law

#### Slide 4 Italian rules of law

As a result of the enforcement of the “Framework Law on public works” in 1994, the Italian lawmakers have been regulating this field in agreement with the EC Directives. The first draft has been amended many times over the years to adapt it to the ever-changing markets.

This intense lawmaking activity has prepared the country to accept the new culture of PPP initiatives in the field of public infrastructure, through:

- The introduction of the role of the Promoter in 1998
- The introduction of the role of the General Contractor in 2001
- The creation of *ad hoc* bodies starting from 1999
- The redefinition of the role of the Cassa Depositi e Prestiti S.p.A. (State controlled bank devoted to finance local entities) in 2003, with the aim of favouring the growth of public investments on infrastructures
- The "Consolidated Text of rules and regulations on public contracts for work and supplies" in 2006.

The evolution of the applicable rules and regulations has perceived the deep change of the needs of the private institutions and has minimised as much as possible the impediments posed by the great deal of red-tape.

The development of specific, wide-ranging and well-organised laws has rapidly increased the number and amounts of the PPP contracts in Italy.

### 3.2) PPP models adopted in Italy

#### **Slide 5 PPP Models adopted**

According to the methods that are implemented to establish public-private partnerships, the Roland Berger Strategy Consultants' report identifies and classifies different PPP models to fund the infrastructures. Here are the main one:

#### **Slide 6 Functional diagram of a concession agreement.**

##### 1. Construction and Management Concession (PPP based on a public initiative)

The construction and management concession (Project financing contract) is the model based on a “public programme and initiative” for the construction of public works; according to this model, the Public Administration entrusts another subject (Concessionaire) with the construction and operation of an infrastructure. The concessionaire will profit from the operation; the relevant tolls cover the construction and management of the infrastructure and are also intended as a payment for the activities that have been carried out. In some cases the P.A. is financially involved in the initiative to guarantee an economic and financial balance.

#### **slide FIGURE 7 Risks for the Public Administration**

Slide 7 shows that the risk associated with the charges and tolls falls upon the Public Administration that pays a fixed fee to the Concessionaire.

#### **slide FIGURE 8 Risks for the Private Partner**

Slide 8 shows that the “toll” risk falls upon the private concessionaire. Both cases include the hypothesis of a public contribution without security; this provision is usually included in the project contracts, whenever the returns in the operative phase (tolls and fees) would not be sufficient to finance the project.

2. Project Financing pursuant to Article 37bis, Italian Law 109/1994  
(PPP based on a “promoter’s” private initiative).

**Slide 9 Project financing**

The Project Finance rules favour the use of the Construction and Management Concession in the field of public works as an instrument to concentrate private capitals on the construction of infrastructures. The Project Finance can be considered as a branch of the Construction and Management Concession. The main difference between the two models is to be found not only in the different procedure to designate the concessionaire, but also in the initiative for the infrastructure activity, which in this case is entrusted to the private institutions. They will submit the infrastructure proposals included in the three-year plan or in the programme formally approved by the granting administration in compliance with the regulations in force.

The designation of the Concessionaire takes place in two phases: during the 1st phase, the private Promoter submits the proposal to the Public Administration together with a feasibility study and a preliminary financial plan. The Public Administration evaluates and

amends the proposal according to the needs and the programmes of the Administration and calls for tenders for the final designation of the Concessionaire. During the call-for-bids procedure the Promoter acquires a right of pre-emption over the other bidders. The second phase is similar to the one described for the previous case.

### 3. Other management concessions

This model applies to the activities granted to private partners in which the administration as the primary beneficiary of the work management changes the concessionaire's payment method. The payment no longer comes from the user, but from the administration.

### 4. Joint Ventures

Joint ventures companies were introduced in the Italian legal system in 1990, in the framework of the new methods for the management of the local public services; the relevant rules and regulations have been amended many times. The most common fields of application are: utilities, ports, the environment and waste.

The private partner is designated via a public call for tenders and the relations between the public and private partners are governed by the articles of association and other shareholders' deeds, if necessary.

### 5. The General Contractor

**Slide 10 General contractor**

This contract model was used by the public concessionaire for the construction of the high-speed railway network in the Nineties. The model was properly modified and approved by means of a Law Decree in 2002. It can be considered as a “turn-key” contract because the contractor is not involved in the management of the work.

The need to initiate a construction cycle of large works has led the lawmakers to consider a financial risk for the contracting party other than the risk included in the common PPP models (Project Financing).

The above-mentioned financial risk is represented by non-payment of 10 to 20% of the value of the executed work at any progress stage. This amount will be returned to the GC after the final inspection.

In addition to the 1992 high-speed-railway-network experiences, there have been many calls for tenders to entrust activities to the General Contractor after 2002, e.g. the modernisation, enlargement and construction of many road and railway infrastructures.

The contracts whereby the works are entrusted to the General Contractor cannot be classified as PPP for the above-mentioned reasons.

#### **4) Present situation in Italy**

##### **4.1) Italian Market**

**Slide figure 11 Evolution of PPP Market in Italy**

The Italian public-private partnership market is one of the most active in Europe, both in terms of ongoing projects and overall value.

The histogram summarises the data published by various sources, also including the National Observatory on Project Financing, which represents the most important source in the field of the Italian PPP market sizing. In the observed period 2002- 2006, the PPPs for the construction of public works in Italy have increased.

As shown in the slide, the number of PPPs has constantly grown till 2005, with some remarkable peaks in 2004 and 2002.

As for the amounts of the PPP contracts, it is important to outline that they are not the amounts of the private investments, but the total value of the initiative. A constant growth till 2005, the year in which a total value of approximately 10 billion € was recorded, can be seen.

2006 was characterised by a slight drop compared to the peaks of 2005, both in terms of initiatives and total amounts. This result was certainly influenced by the outcome of the political elections held in April 2006, the subsequent change in the Parliament majority and the Government reshuffle.

### **Slide Figure 12: Evolution of PPP Market Vs total investments**

Another important piece of evidence to evaluate the evolution of the PPP on the Italian market is the effect that the amounts involved in the calls for tenders for the PPP have exercised on the public investments over the years.

The slide clearly shows the increasing weight of the PPP contracts. The use of private capitals has reduced the decrease in public funds and supported an acceptable level of investments.

**Slide FIGURE 13: Evolution of the PPP market per model**

Finally, a description of the distribution of the Italian market between 2002 and 2006 on the basis of a partnership model. The data have been combined according to the above-mentioned categories. As shown in the slide, the most common models are the Project Financing, the concessions based on public initiatives and the management concessions representative of the reorganisation of public services, especially at local level. The item “other models” includes the partnership contracts of mixed companies, sale and leaseback and public sponsorship.

The presented results do not include the contracts whereby works are entrusted to a General Contractor because, as already mentioned, they are a special PPP form in which the private partner may provide preliminary funds to the project.

4.2) The use of the PPP in the transport sector

The data presented so far show that PPP initiatives worth approximately 34 billion Euro were undertaken in the 2003-2006 four-year period, and a preliminary “proposal selection” phase, worth approximately 23 billion Euro, was also initiated.

With reference to the transport sector, initiatives worth 12,5 billion Euro (37% of the total) were undertaken during the same

timeframe, while the selected proposals amounted to approximately 4.8 billion Euro, equal to 21% of the total proposals selected during the above-mentioned period.

These data confirm that the initiatives in the transport sector are suitable for PPP agreements.

The analysis of the published results also shows that the PPP agreements are especially resorted to by the local institutions, the Municipal and Regional Governments, but they are hardly used by the main central institutions, ANAS and RFI, which manage the national road and railway systems.

To date RFI has not undertaken any PPP initiative, while ANAS has used the PPP agreements only in two cases.

The Concession model was used for the construction of the Asti-Cuneo motorway, contracted out in 2003 and amounting to approximately 1.8 billion, while the Project Financing method was resorted to for the construction of the Brescia-Milan motorway in 2002; total amount: 1.5 billion Euro.

## **5) The Messina Strait case**

### **Slide 14 bridge**

I would now like to focus the main characteristics of the project for the Messina Strait Bridge before presenting the financing methods.

### **Slide 15 Longitudinal section**

The longest central span in the world: 3,300 metres;

Total deck length: 3,666 metres;

### ***Slide 16 Deck***

The deck is 60 metres wide with two carriageways and two railway tracks; the theoretical capacity is 6,000 vehicles/hour and 200 trains/day;

### ***Slide 17 Towers***

The towers are 382 meters high.

### ***Slide18 Links***

More than 40 km of motorway and railway links with the existing infrastructure network

### ***slide 19, 20, 21 Main suspended bridge***

### ***slide 22 Comparison of bridges***

## **Financial analysis and feasibility**

The Company has developed a financial analysis and feasibility study with the help of the financial consultant PricewaterhouseCoopers; the main objectives are the following:

- Complete the work as scheduled;
- Eliminate any public funding to the project, i.e. funds without security and guarantees;
- Involve as many private partners as possible in the project, according to the typical *project finance* model;

## **Market funding**

The following mechanism has been developed to facilitate the market funding to the work:

- ✓ The possibility for Stretto di Messina to amortise at least 50% of the investment during the operation period;
- ✓ The granting administration will pay a “redemption price” of max. 50% of the investment to Stretto di Messina at the end of the operation period.

The redemption price might decrease if operation results better than the estimates are achieved and eventually be fully covered using the resources obtained by the state from another call for tenders at the end of the first concession (expiry date: 2041).

In this framework, it has been calculated that the extension fee obtained by the granting administration through a new call for tenders for the operation of the infrastructure at the end of another 30-year period would be, according to a conservative estimate, twice the maximum redemption price to be paid to Stretto di Messina.

The estimate of the redemption price takes the service life of the suspended bridge into consideration (at least one hundred years, i.e. much longer than the expected concession period) and allows to set the infrastructure operation revenues aside as amortization of investment.

The same objectives could not be achieved with a thirty-year concession model, because no long-term funds would be granted without any guarantee and the economic value resulting from this

extension would be negligible, also due to the uncertainties associated with any long-term estimates.

Therefore the above-mentioned mechanism can solve the huge gap between the service life of the suspended bridge and an appropriate concession term; it will also prevent the burden associated with a conservative estimate (traffic, costs), as it always happens whenever long-term forecasts are made.

On the basis of these hypotheses, Stretto di Messina has developed a financial plan that also favours the assessment of the feasibility of the funding scheme. This scheme does not include any government funding, but can still guarantee the return and collection of the risk capital in any traffic scenario.

Moreover the value of the bank rates taken into account for non-recourse loans of the *project-finance* type render the project “bankable”.

The described solution would also:

- ✓ Guarantee the completion of the work and the optimisation of the time schedule;
- ✓ Prevent any effects on the state deficit;
- ✓ Guarantee private funding, amounting to approximately 60%: this amount would also include the General Contractor’s contribution, amounting to 15%, and the participation of the financial market without any guarantees.

**Construction cost** – The construction of the bridge will cost approximately 4.6 billion Euro. This amount covers the construction of the suspended bridge and 40 km of motorway and railway links

**Requirement** – The total requirement is approximately 6 billion Euro, considering the inflation and the financial charges during the construction period.

**Financial backing** – 40% of total amount will be covered by new contributions to capital, amounting to 2.5 billion Euro, and the remaining 60% (3.5 billion Euro) will be raised using the typical project finance scheme on the international markets. These funds will be repaid through the cash flows generated by the project during the operating period.

The resources allocated to the bridge are an entrepreneurial investment based on a return and recovery analysis and not a lump sum granted. Although the risk capital invested on the project comes from semi-public companies (Fintecna, Anas and RFI), it will be used on the basis of technical investment analyses and according to typical private market principles.

**Conclusions** – The results of the financial analyses show that the financial plan, attached to the Agreement, guarantees the shareholders and the financial backers the repayment of the capital and a market profit, even with no public lump sum granted.

**Law no. 286 dated 24th November 2006**

A new scenario has recently emerged. The project was no longer considered a matter of priority and the execution of the work has been postponed.

1. Stretto di Messina is confirmed as Concessionaire of the permanent link on Strait of Messina.
2. Change in the shareholding structure of the company Stretto di Messina.
3. Change in the allocation of financial of Fintecna shareholder in relation to the company Stretto di Messina.
4. The company Stretto di Messina is authorised to work abroad.