



GLOBAL INFRASTRUCTURE

Rail at high speed – Doing large deals in a challenging environment

Lessons learned from Portugal's first high-speed rail PPP project

KPMG INTERNATIONAL



“It is very encouraging to see the interest of so many countries in the Portuguese business model, that makes us feel confident that we are doing well. We are talking about countries like Russia, Brazil, Sweden, among others, which are, at the moment, looking at us and considering the possibility of adopting a business model very similar to ours. This is obviously very rewarding to us.”

Carlos Fernandes – Board Member,
Rede de Ferroviaria Alta Velocidade, S.A. (RAVE)



Foreword

High-speed rail is seen to offer one of the best alternatives when it comes to investing in public transport. Many governments view high-speed rail as a high-capacity, reliable, fast, comfortable and environment friendly option in comparison to other forms of transport. These attributes have led to an explosion in the number of high-speed rail projects worldwide.

Many countries are preparing and/or implementing high-speed rail projects. In addition to Portugal, where the first phase of the high-speed rail network is fast progressing into construction, Brazil, China, France, Morocco, Russia, the United Kingdom and the United States are among a few examples of countries where projects are being planned or implemented.

Public Private Partnership (PPP) solutions can be particularly effective for new-build rail infrastructure. They encourage whole-life cost optimization and lock in incentives for responsible stewardship of the infrastructure over the long term. The impact of the financial crisis, however, on the project finance market is making large transactions challenging. KPMG in Portugal has been the strategic and financial adviser for Portugal's first high-speed rail project (a contract for the majority of the infrastructure between the Portuguese capital, Lisbon, and the Spanish border, en route to Madrid). What KPMG firms have learned is that if the fundamentals of a PPP are well thought through and, critically, if the procuring authority instills confidence and is perceived to be credible by the market, then it is possible to execute large transactions that represent good value despite these challenging times.

We hope that you will find this case study interesting, and that you feel KPMG's insight into a successful transaction can be valuable in progressing rail projects across the globe.

Nick Chism

*Global Head of Infrastructure
KPMG in the United Kingdom*

Fernando Faria

*Head of Infrastructure
KPMG in Portugal*

Introduction

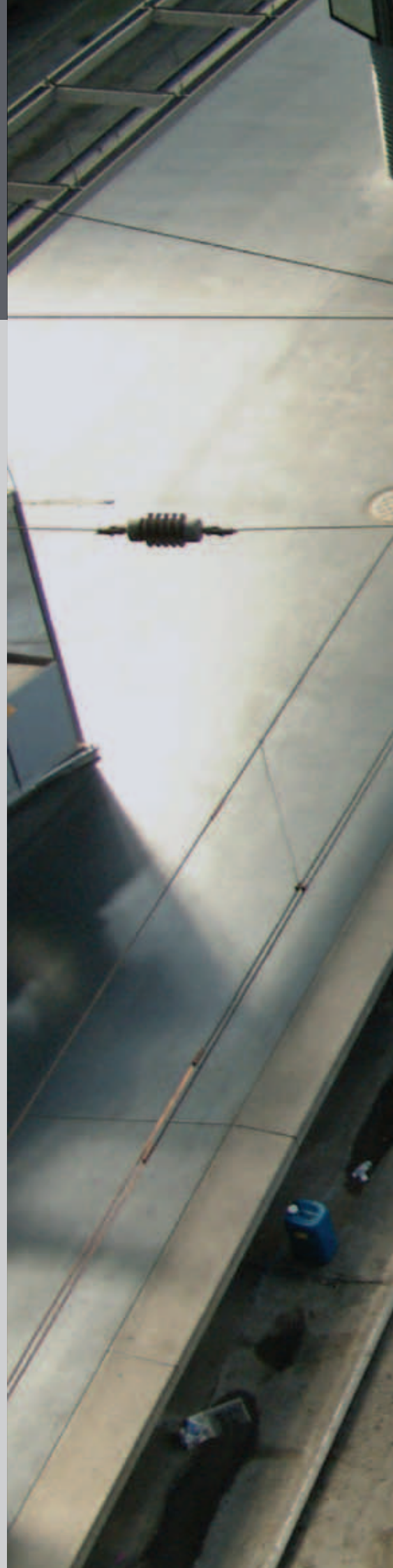
A Public Private Partnership (PPP) approach can be an ideal fit for new-build, high-speed rail¹ infrastructure. It focuses simultaneously on minimizing whole-life cost while ensuring that incentives and protections are in place for the responsible long-term upkeep of the infrastructure.

High-speed rail projects often involve mainly new infrastructure without the “unknown asset condition” risk related to existing infrastructure. When combined with appropriate risk allocation in other areas, the market is able to price such projects competitively.

The financial crisis has, however, increased the challenge of doing large PPP deals. However, with appropriate structures and access to specialist knowledge, such deals remain perfectly possible.

This document seeks to draw out key lessons learned from the success of the first Portuguese high-speed rail project for the benefit of the global PPP and high-speed rail markets.

¹ A generally accepted definition for high-speed rail is the possibility for trains to travel at speeds exceeding 200 km/h.







High-speed rail in Portugal

The Portuguese government is in the process of developing a 650-km, high-speed rail network, which is intended to transform travel times on vital connections between Lisbon-Porto, Porto-Vigo (Spain) and Lisbon-Madrid (Spain). Eventually, the network will also connect Portugal with Salamanca (Spain) in the east and with Huelva (Spain) in the south. The transnational nature of these transport corridors resulted in them being given priority in the European Union's (EU) Trans European Network for Transport (TEN-T) program, making them beneficiaries of increased financial and coordination support.

To coordinate the development of the high-speed rail network, the Portuguese government has established an organization called RAVE (Rede de Ferroviaria Alta Velocidade, S.A.). With a long history of PPP in Portugal, and a good understanding of the potential benefits, RAVE is using a PPP solution to procure the high-speed rail network.

RAVE has divided the procurement of the network into six distinct PPP projects, with an aim of ensuring each package is attractive to the market in its own right. Five of the PPP packages are sections of rail infrastructure, and the sixth is a signaling and telecommunications PPP covering the entire network. RAVE was very aware that each time the procurement of the network was divided, an additional interface was created. If inadequately addressed, these can result in additional risks that the public sector might have to absorb. RAVE's analysis of the situation concluded that six PPP projects would represent an optimum balance between generating private-sector interest while minimizing the number of interfaces between projects and contractors.

The PPP contracts were scoped before the financial crisis when the project finance market looked quite different than it does today. The first €1.34b infrastructure PPP from Poceirão to Caia has nevertheless now successfully reached financial close and there are lessons to be learned from the project.



Poceirão-Caia PPP

In June 2008, RAVE launched the Poceirão-Caia PPP procurement competition. The Poceirão-Caia contract was for a private-sector partner to design, build, finance and maintain the rail infrastructure (substructure and superstructure)² for a period of 40 years. The travel-time target for high-speed rail services on the 167-km section was under 29 minutes, translating into a design speed of 350 km/h for the rail infrastructure. The next PPP in the overall program is currently in procurement and will complete the track from Poceirão to Lisbon.

At the time the procurement competition commenced, the impact of the financial crisis on the availability and cost of project finance was not yet clear. It soon became evident, with the amount of senior debt from any single bank for any particular project reducing significantly. The number of active banks in the Portuguese market also declined, as institutions withdrew to their home markets. Internal competition for funds within banks also increased, with markedly greater selectivity in potential investment opportunities, with only the most attractive, in terms of risk and reward, prevailing. Together, these factors created a significant shortfall in the availability of finance.

Despite the challenging market conditions, financial close on the project was, nevertheless, reached in 2010. The high-speed line will be designed, built, financed and maintained by Elos, a consortium jointly led by Brisa and Soares da Costa. The Poceirão-Caia PPP is believed to represent excellent value for money with construction cost at around €8m per km.³ This compares very favorably with the plans for High Speed Two in the United Kingdom with estimated development and construction cost at around €60m per km.⁴ Having applied the same approach as on Poceirão-Caia, the first round bids for the Poceirão-Lisbon PPP have recently been submitted. The pricing of those bids is felt to be equally competitive, albeit adjusting for the construction of the Third Tagus Crossing, a 7.2-km bridge across the river to carry both rail and road traffic. The key success factors of the Poceirão-Caia approach are discussed below in the context of the client, the project and the market.

² The rolling stock and the passenger operations are outside the scope of the PPP project.

³ Including signaling and telecommunications.

⁴ A Y-shaped network of 335 miles at £30b (€33b) development and construction cost is proposed in UK Department for Transport (2010) *High Speed Rail – Command Paper*, HMSO.



The client – Consistency and credibility matter

RAVE was specifically created to build a high-speed rail network in Portugal and it initially crafted the PPP-based business model for high-speed rail. RAVE strongly believed from the very outset that the primary motivation for using PPP should be in the benefits that arise from the whole-life cost approach. Importantly, it developed its approach through engagement with market participants, leading to an approach that struck an optimum balance between meeting public-sector objectives while taking a pragmatic, market-driven approach for realizing the project.

Once RAVE had decided on the business model, it was communicated to the market. The business model was clear about which risks RAVE expected the market to take and which risks it was willing to retain. Subsequently, RAVE has stayed true to the business model other than where there has been a very compelling reason to change approach. Some changes are discussed below in the project and market sections.

In its interactions with the market, RAVE gained the confidence of private-sector bidders as a credible counterparty that could be relied upon to deliver on its promises. RAVE could not have achieved this without having successfully established, within its organization and approach, the competencies and behavior required for effective high-speed rail procurement.

The visibility to investors of such competencies is critical to success. Private-sector bidders and investors considering a project need a clear picture of what will happen and when. They also need to have confidence that the responses and commitments of procuring authorities and sponsors will hold true in reality. Given the number of countries preparing for high-speed rail projects, it is likely that the most competent and credible procuring authorities will attract the greatest interest of bidders and investors and benefit from the involvement of the best private-sector talent.

The project – Getting the risk allocation right

Although contract structure is influenced by a number of factors, the separation of infrastructure provision and transport operations is largely dictated by the infrastructure provider's inability to assume long-term risk on the demand for transport services. Availability-based structures are often seen as the only bankable option for rail projects by lenders and investors, in contrast to projects involving significant demand risk. This is especially true for new-build projects with no operating history. This is because the level of demand is primarily driven by macroeconomic and transport planning factors, over which the infrastructure provider has no control.

The Poceirão-Caia project is primarily an availability-based transaction with unitary payment during the operational period linked to the ability of trains to use the track, with only circa two percent of the payment to the PPP infrastructure provider being dependent on traffic volumes. The two-percent proportion of the unitary payment that is linked to train kilometers traveled on the line will leave the senior debt protected on the Poceirão-Caia project, with variability influencing only shareholder returns. The volume-based payment is designed as an incentive for the different parties involved in operating the infrastructure and providing passenger and freight services to collaborate better with each other in order to minimize disruption and maximize traffic and, thus, protect the social and economic benefits resulting from having the high-speed line.

If the fundamentals of a PPP transaction are well thought through, particularly in relation to risk allocation, it is possible to finance and execute large transactions that represent good value despite current challenging times. In this instance, RAVE recognized the need for it to retain certain risks that were originally intended to be allocated entirely to the private sector for reasons of affordability. The risk of delays related to archaeological discoveries is an example of this.

The market – Keeping an ear to the ground

It is clear that financial markets moved quite significantly during the time that the Poceirão-Caia PPP was in procurement. The Brisa and Soares da Costa consortium showed great skill in navigating the challenging environment. As mentioned earlier, the amount of senior debt forthcoming from any single bank reduced dramatically and the international banks that had been globally active in project finance withdrew to their home markets.

The Poceirão-Caia PPP was always going to be partially funded through capital contributions from the Portuguese state and EU funds. The finance required to complete the project was to be obtained by the successful private-sector bidder from the European Investment Bank (EIB) and a number of commercial banks. The financial crisis amplified the fact that the direct capital contribution of around 50 percent of the capital cost and the around €600m loan from the EIB were both key factors. Notably, the values of these contributions remained unchanged through the financial crisis. Commercial banks, led by Caixa Geral de Depósitos, financed the balance of the capital cost. Their involvement was essential for ensuring rigorous due diligence of the project due to the associated commercial approach.

Given the turmoil in the project finance market, the pricing of senior debt changed dramatically. In order to counter this issue, RAVE allowed the bidders to sculpt the availability payments to accommodate higher debt margins. This successfully brought the project back within affordability limits. Allowing the payments to be sculpted was seen as a pragmatic and creative step in order to make progress toward financial close.




Concluding remarks

There are projects in development across the globe, from the United States to the United Arab Emirates and beyond. The Poceirão-Caia PPP helps to show that it is possible to execute large transactions in challenging times. At a construction cost of around €8m per km, the project is felt by many in the industry to represent particularly good value for money.

KPMG firms' experience with the Poceirão-Caia project has highlighted three important issues:

1. The procuring body should act with authority and clarity that inspires confidence in the marketplace. As competition for the talent and the financing needed to deliver high-speed rail infrastructure intensifies, this factor is likely to become ever more important.
2. Risk allocation on the project should be driven by value-for-money considerations (including avoiding the need for the market to price significant risk premia) and pragmatism regarding what is bankable in the market. Having an engaged dialog with the market on these topics before launching a procurement process is vital for appropriate structuring and scoping of the project.
3. The unexpected often happens, and at such times, it is important to be pragmatic, flexible and creative in order to sustain progress. In this regard, past experience and a deep understanding of the market, which is becoming increasingly global, can be pivotal.



These links will contribute to rebalance the modal split both for passengers and for freights, paving the way for a sustainable transport pattern, and a reduction of greenhouse gas emissions – an ambitious and compulsory goal for the decision makers in the coming years. But a fundamental achievement will be the stimulus to the competitiveness of the Portuguese economy in terms of connections and innovation, in enhancing the attractiveness of the region it crosses and in creating new jobs.

Professor Carlo Secchi – European Union Coordinator for TEN-T
Priority Project 3 and 9

KPMG's Global Infrastructure professionals provide specialist advisory, tax, audit, accounting and compliance related assistance throughout the life of infrastructure projects and programs.

Our member firm teams have extensive local and global experience advising government organizations, infrastructure contractors, operators and investors.

We help our clients to ask the right questions and find strategies tailored to meet the specific objectives set for their businesses. Our teams can help set a solid foundation at the outset and combine the various aspects of infrastructure projects or programs – from strategy, to execution, to end-of-life or hand-back.

For further information regarding how KPMG's Global Infrastructure practice can help, please visit us online or e-Mail: infrastructure@kpmg.com.

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

The views and opinions expressed herein do not necessarily represent the views and opinions of KPMG International and KPMG member firms.

© 2010 KPMG International Cooperative ("KPMG International"), a Swiss entity. Member firms of the KPMG network of independent firms are affiliated with KPMG International. KPMG International provides no client services. No member firm has any authority to obligate or bind KPMG International or any other member firm vis-à-vis third parties, nor does KPMG International have any such authority to obligate or bind any member firm. All rights reserved.

KPMG and the KPMG logo are registered trademarks of KPMG International Cooperative ("KPMG International"), a Swiss entity.

Designed by Evalueserve.

Publication name: Rail at high speed

Publication number: 1004513

Publication date: May 2010