IRF Global Leadership Seminar:
Delivering Value & Innovation in Road Project Procurement

October 22, 2018

IRF expresses its gratitude to the Bechtel Group for underwriting this seminar
INTRODUCTION

In recent years, the Balkan region has been characterized by a surge in new road projects, straining the capacity of tendering agencies to render effective decisions that combine short term cost optimization and the long term co-benefits often associated with major civil engineering works.

If used with a high degree of professionalism, public procurement is a powerful tool that can be leveraged to deliver long term value for money, promote innovation and sustainability, and directly benefit the host country through skills partnerships and technology transfer programs.

The entry into force of a new Transport Community Treaty for the West Balkans will extend certain regulatory mechanisms and fast track transport sector reform across the region, creating a timely backdrop for a discussion whose scope may also extend to other neighboring regions with which the EU has established economic partnerships, and to other types of infrastructure where these provide inspiration for the road sector.

This Global Leadership Seminar, convened on October 22 as part of the European Road Conference, was structured as a moderated exchange between key industry and institutional specialists with the goal of:

- Showcasing win-win strategic procurement practices
- Understanding and address the root causes for risk-aversion from public buyers
- Assessing institutional capacity and regulatory gaps
- Achieving consensus on the long term value of large scale road infrastructure programs.

The findings presented hereunder reflect the range of views expressed during the seminar and may not be attributed to one person or organization in particular. Although the geographic focus of the discussions was on the West Balkan countries, the findings are, by and large, applicable to the broader issue of road project procurement in emerging economies.

ABOUT THE IRF

The International Road Federation is a global not-for-profit organization, headquartered in Washington, DC since 1948 and supported by regional operations throughout the world. The IRF serves a network of public and private sector members in more than 70 countries by providing world-class knowledge resources, advocacy services, and continuing education programs which together offer a global marketplace for best practices and industry solutions.

For more information about IRF activities and member services, please visit www.irf.global.
EXECUTIVE SUMMARY & RECOMMENDATIONS

After many years spent on the geographic periphery and overlooked by policy-makers and planners, the Western Balkans are now firmly connected to the rest of Europe’s transport system. However, the present state of road project preparation across the region reflects chronic administrative weaknesses, and underscores insufficient efforts to learn from successful procurement practices. Where procurement guidelines are not enforced with a high degree of professionalism, there is a much higher risk of sub-optimal delivery.

Many of the region’s countries are ill-equipped to deal with the tendering complexities and delivery oversight mechanisms required for large-scale, multimodal transport infrastructure corridors. Technical capacity and resources available to the region’s Project Implementation Units vary to a considerable degree, suggesting these public entities need to focus attention and assistance from International Financing Institutions in the years to come through mandatory certification programs as well as individual pathways to skills development.

The scale of the management and technical challenges required to implement large road corridor projects in the region furthermore suggest there is growing need to associate delivery partners to the planning and design phases of the project, as is common practice in many developed economies. Engineering, Procurement and Construction (EPC) or Design-Build (D/B) contracts offer a means to achieve this by giving the contractor a greater degree of responsibility for the entire value chain of the project from the early design stage to the formal handover of the final product to the end-user or owner.

A particular area of concern is the inconsistent identification and management of Abnormally Low Tenders by tendering authorities. Over the lifetime of the contract, there is a much higher risk that an ALT will lead to cover overruns, claims, and quality issues. In the case of high-value contracts, e.g. a toll road, the cost of such project delays may significantly outweigh any cost savings at the time of the contract award. Mechanisms exist that would mitigate this risk in the West Balkans, including requiring tendering authorities benefiting from IFI funds to trigger an ALT self-assessment if the lowest bidder is priced 20% lower than the next runner-up, requiring companies participating in public tenders to demonstrate they do not benefit from illegal state aid (per applicable EU legislation) that would affect the price of their bid, and tasking the future Transport Community Treaty Secretariat with publishing ex-ante / ex-post data on public tenders comparing client’s cost estimate, tender price, contract price and final execution costs upon handover.

The current public procurement framework and associated implementation guidelines provide considerable guidance to accompany the region’s tendering authorities towards green procurement choices in the road sector, at a time when pressure on resources is increasing at an unsustainable pace. Public procurement can be a huge driver for innovation and resource efficiency, provided these are explicitly factored into the technical specifications and award criteria as allowed under European legislation. Mechanisms such as life-cycle costing and Environmental Product Declarations need to be used more systematically throughout the West Balkans.

Lastly, chronic under-investment in the maintenance of existing road assets across the region may reflect an insufficient understanding of value-based approaches to transport infrastructure assets. Deferred maintenance negatively impacts road asset performance but also depreciates its accounting value – an aspect rarely integrated in the public balance sheet of the region’s economies. Life-cycle cost should be preferred for long-term value creation. The value proposition of alternatives to new build must also be assessed more systematically.
OPPORTUNITIES AND UNCERTAINTIES IN THE WEST BALKANS

After many years spent on the geographic periphery and overlooked by policy-makers and planners, the Western Balkans are now firmly connected to the rest of Europe’s transport system.

The South East Europe Transport Observatory, which ran as an intergovernmental program between 2004-2018 formed the nucleus for regional cooperation, providing key data on infrastructure needs (known as the SEETO Core Network). In parallel, the West Balkan Investment Fund (WBIF), a blending facility comprising most of the region’s donors, has disbursed close to 600 million euros in grants since 2015, generating a wider pool of infrastructure investments estimated at 2.4 billion euros.

The need for institutional reform was validated through the Connectivity Agenda adopted in 2015, with the goal of progressively aligning the region’s legislation with the EU’s in key policy areas prior to accession. A Transport Community Treaty (TCT), which entered into effect in 2017, further strengthens the pace of reform through technical assistance and regulatory oversight in key policy areas.

The Treaty is explicitly designed to address persisting weaknesses in such areas as road safety, border crossings and project preparation. The region has an important catch-up effort to bring its road traffic injuries under control (twice the per capital EU average), facilitate road- and rail-based trade (wait times are estimated to cost the region 200 million euros/year), and bring maintenance investments to the level of EU Member States.

“Additional connectivity investments in the West Balkans without structural reform are not the answer”

The present state of road project preparation across the region reflects chronic administrative weaknesses, and underscores insufficient efforts to learn from successful procurement practices. Where procurement guidelines do not meet best practices, or where these guidelines are flouted, there is a much higher risk that it will lead to a suboptimal selection of project partners. This is evidenced by a growing trend of bilateral loans in the region which have had a profound impact on the concentration of market actors and level of involvement of local contractors (see chart). This phenomenon also underscores the need for a better quality of dialogue between WBIF stakeholders and regional agencies on projects of regional significance and the associated upskilling needs for the local contracting community.
FRAMING THEissue

Many of the region’s authorities continue to maintain a simple adherence to public-tender rules, often with price as the only selection criterion, and are ill-equipped to deal with the tendering complexities and delivery oversight mechanisms required for large-scale / multimodal transport infrastructure corridors. Furthermore, technical capacity and resources available to the region’s Project Implementation Units (PIUs), as well as their willingness to work with one another, vary to a considerable degree, suggesting these public entities need to focus attention and assistance from International Financing Institutions (IFIs) and the Transport Community Treaty (TCT) in the years to come.

The lack of a clearly defined procurement strategy routinely leads to underperformance across the board:

- When award is based on lowest-price only, road agencies effectively give up much of the ex-ante control over contractor quality—often, anyone that fulfills very basic quality requirements can bid, and high quality is not preferentially weighed in the evaluation. A practical consequence is a much higher spread in the bid ranges, frequently 50% between the highest and lowest bidder, which may indicate lack of understanding of the bid components or unethical business practices.

- If the winning bid is unrealistically or abnormally low, there is considerable risk that the project will be a prolonged battle over change orders between the road agency and the contractor, risking delays and increased taxpayer costs. In a recent survey conducted by IRF and McKinsey, one country reported that 70% of projects executed by winning bidders were ultimately more expensive than the proposed budget of the “runner up” when accounting for cost overruns over the life of the project.

- Opportunities are also being missed to introduce efficiency & transparency-inducing mechanisms such as e-procurement and negotiated tenders. While public procurement laws typically allow pre-tender negotiation under specific conditions (to avoid anti-competitive practices), countries vary widely in their use of this option. When negotiations are used to give feedback on the preferred solution and to ensure that all potential bidders have truly understood what needs to be delivered, they can provide significant benefits to all parties involved. Negotiations may also be used to limit the risk of erroneous calculations, reduce overly wide discrepancies in risk estimates, and encourage improved use of alternative construction methods—however, they also increase the need for advanced tendering capabilities with both the infrastructure owner and the suppliers.

The problem is compounded by a piecemeal approach to delivering individual road sections that form the SEETO Core Network. The resulting roads are frequently built to different engineering standards and timelines by multiple contractors, which slows down delivery and reduces the aggregated economic impacts of the corridor. Trans-jurisdictional planning, cooperation, and delivery oversight mechanisms may need to be strengthened to achieve the region’s connectivity and mobility goals.
STREAMLINING PROJECT DELIVERY

The key to improving streamlined delivery is to boost cooperation and align incentives across the various project stakeholders - this is particularly crucial in the early stages of the project. As a rule of thumb, 90 percent of a project’s cost is determined by the time 10 percent of its funds have been spent. The planning & procurement phase thus sets the conditions for what will be built, and plays a critical role in reducing the probably of legal disputes.

The scale of the management and technical challenges required to implement large road corridor projects in the region suggest there is growing need to associate delivery partners to the planning and design phases of the project, as is common practice in many developed economies. Engineering, Procurement and Construction (EPC) or Design-Build (D/B) contracts offer a means to achieve this by giving the contractors a greater degree of responsibility for the entire value chain of the project from the early design stage to the formal handover of the final product to the end-user or owner.

“Tendering authorities invite the market to offer alternatives which allows more potential savings”

There are a number of advantages that come with adopting integrated contractual arrangements:

- A D/B contractor has a final delivery mentality which mitigates project interruptions stemming from political and bureaucratic change.
- The D/B contractor fills the short-term capacity needs, provides an experienced staff and management team mitigating learning curve inefficiencies, and then demobilizes when no longer needed which means the public agency does not have a large and underutilized staff with all the associated overhead costs.
- D/B arrangements typically give room for some flexibility in the process—effectively, agencies invite the market to offer alternatives (or variants), which allow more potential savings.
- Local stakeholders can be integrated in the D/B contract with local participation requirements (as a % of the contract value), approved materials and vendors, etc. as part of the prequalification criteria.
- A D/B contractor will size procurement packages to optimize and match local industry capacity with project needs while injecting regional or international resources to fill technical and commercial gaps.

These contracts also tend to be larger in size, which enhances the need for more thorough project oversight mechanisms including formal risk mitigation processes, on the job safety requirements, and work site audits by the tendering agency or neutral parties, which are much harder to cost-justify with smaller projects.
ADDRESSING GAPS IN PROCUREMENT REGULATION

The current European legislation on public procurement (Dir. 2014/24/EU) provides a frame of reference for the region, but also presents weaknesses which can be addressed through strengthened oversight mechanisms and a willingness to learn from successful modes.

A particular area of concern is the identification and management of Abnormally Low Tenders (ALTs) which is presently left to the appreciation of the tendering authority. Over the lifetime of the contract, there is a much higher risk that an ALT will lead to cover overruns, claims, and quality issues. In the case of high-value contracts, e.g. a toll road, the cost of project delays may significantly outweigh any cost savings at the time of the contract award.

Any complaints emanating from unsuccessful bidders typically need to go through 3 successive appeal mechanisms before they are escalated to the European Commission, at which point civil engineering works may already be underway.

There are mechanisms that would mitigate this risk in the West Balkans:

- Require tendering authorities benefiting from IFI funds to trigger an ALT self-assessment if the lowest bidder is priced 20% lower than the next runner-up.
- Require companies, especially State Owned Enterprises, participating in public tenders to demonstrate they do not benefit from illegal state aid in the sense of applicable EU legislation that would affect the value of their bid.
- Task the TCT Secretariat with providing bid assessment tools to tendering authorities, and publishing ex-ante / ex-post data on public tenders comparing tender and final execution costs. The World Bank’s new procurement framework adopted in 2016 may offer valuable input into this process.

Another area of improvement concerns the role of contractor pre-qualification. When prequalification is included in the tender requirements, it sends an important message to the wider community of contractors that lowest-price will not be used to award the bid, but that a wider range of indicators – including contractor performance on previous projects – are being considered. The pre-qualification process may also extend to the individual profile of the experts assigned by the contractor to the project, together with strong penalties for substitutions after the project award.

Rijkswaterstaat has adopted to methodical performance evaluation process for client and contractors to determine who is eligible to take part in public tenders. Watch an explanation online.
Lastly, the current public procurement framework and associated implementation guidelines provide considerable guidance to accompany the region’s tendering authorities towards green procurement choices in the road sector, at a time when pressure on resources is increasing at an unsustainable pace. Public administrations in Europe spend an average of 80 billion euros per year on their road network, representing a considerable opportunity to send strong signals to the market.

Public procurement can thus be a huge driver for innovation and resource efficiency, provided these are explicitly factored into the award criteria as allowed under European legislation. Mechanisms such as life-cycle costing and Environmental Product Declarations need to be used more systematically throughout the West Balkans, including for all road equipment (e.g. road barriers, markings and signs). A number of European R&D projects as well as a pilot for acoustic noise barriers have demonstrated the relevance of these approaches in getting road professions to think about design differently.

ADOPTING A VALUE-BASED PROPOSITION

Public procurement is a tool for that supports a value-based approach to transport infrastructure assets, at a time when public authorities are reconsidering the wider contributing effect of their activities to socio-economic objectives, including economic growth, job creation, market development, and “Social Return on Investment”.

Anticipating the maintenance requirements of new and existing assets, through a fact-based maintenance strategy, reduces the lifecycle costs of the road, and ensures that assets are not allowed to deteriorate to the point where reconstruction costs start to rise sharply. To achieve these improvements, road agencies must have a solid understanding of the deterioration rates for the different assets that constitute the road network, and ensure both funding and a fact-based prioritization of repairs. Greater use of maintenance contracts with enforcement and penalties to contractors for not meeting service level agreements have also been piloted successfully in the region.

“Procurement is a tool for value delivery”

Life-cycle cost should thus be preferred over lowest construction price for long-term value creation. Leveraging asset management techniques can result in enhanced decision-making in road infrastructure planning and procurement. The value proposition of alternatives to new build must also be assessed more systematically and allowed in tender procedures.
Moreover, deferred maintenance negatively impacts road asset performance but also depreciates its accounting value – an aspect rarely integrated in the public balance sheet of the region’s economies.

“Many public sector organizations and enterprises treat both operating expenditure and capital expenditure as fungible cash and do not have a balance sheet for their assets. So when budgets are tight and political pressures high these organizations will be tempted to cut capital expenditure first. That is made much easier when there is no balance sheet to reference the value of the asset base and the declining value of that asset base as it depreciates [...] A balance sheet also makes unjustified expenditure more visible and so easier to bear down on. The other benefit of a balance sheet is that combined with regulation, it can form a secure basis for determining returns to financial investors who need certainty if they are to invest in an asset either as equity or debt.

Investing in Infrastructure – Getting the Conditions Right
Martin Stanley

BUILDING CAPACITY FOR RESULTS

It is critical that IFIs remain heavily engaged in the West Balkan’s portfolio of road infrastructure programs, accompanying the sector’s institutional reform agenda, and providing guidance and technical assistance to public agency staff.

Short term options include measures to strengthen the capacity of PIUs and expose them to a range of value-driven procurement practices and ethical compliance norms, through mandatory certification programs as well as individual pathways to skills development.

But forward-looking procurement policies can also help promote continuing education partnerships with long term benefits to the host country. As an activity, road building lends itself well to a comprehensive reflection on working with a diverse group of stakeholders, including government agencies, contractors, suppliers and local universities, to build skills and enhance the knowledge base for future investment needs. Even when construction work stops, the road triggers downstream needs making local skills developed through the project available for other employers.
APPENDIX I – FURTHER READING

Establishing a Transport Community Between the EU and the Balkans (2017)

Western Balkans Investment Framework (WBIF)


New Procurement Framework and Regulations for Projects After July 1, 2016, World Bank (2016)

Talent Development in the Construction Industry, an IRF White Paper (2016)

Notable European R&D projects:

LCE4ROADS: Life Cycle Engineering approach to develop a novel EU-harmonized sustainability certification system for cost-effective, safer and greener road infrastructures

SustainEuroRoad

QUIetening the Environment for a Sustainable Surface Transport
APPENDIX II – SEMINAR AGENDA

12:00 - 12:20  Meet & Greet

12:20  Introduction by Chair
Eric Cook, co-Chair, IRF Committee on Procurement & Alternative Financing

12:30  Transport Community Treaty: a game-changer for multimodal transport in the Western Balkans?
Alain Baron, International Affairs, European Commission DG MOVE

13:00  Assessing the True Cost of Transport Infrastructure
Andrzej Maciejewski, Head, UNECE TEM project & Chairman of the Group of Experts on Benchmarking Transport Infrastructure Costs

13:30  Procurement for Successful Road Projects: common issues
Roger Ribeiro, Associate Director, Currie & Brown

14:00  Win-Win Procurement in the Balkans, the Bechtel Experience
Chris Jennions, Bechtel International

14:30-14:45  Coffee break

14:45  Making sense of MEATs: a Practitioner’s Perspective
Ulrich Paetzold, Director General, FIEC

15:15  Sustainability Criteria for Road Equipment Procurement
Giovanni Brero, Expert, European Union Road Federation (ERF)
José Diez, Head of EU Affairs, European Union Road Federation (ERF)

15:45  Concluding remarks by Chair
Eric Cook, co-Chair, IRF Committee on Procurement & Alternative Financing