

## **The Challenge of Infrastructure and Long Term Investment**

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In July of this year I had the opportunity to participate in a high level roundtable discussion in support of the Post-2015 development and climate change agendas of the United Nations. The focus of the panel discussion was to identify potential **“moments”** and **“movements”** that could represent game changing and enabling opportunities for implementation of each of these agendas. During our deliberations we identified long term investment in infrastructure and improvements to the infrastructure prioritization and delivery processes as a primary challenge and opportunity.

At one level this is readily understandable but at another level, the strength and importance of infrastructure to achieving these broad global agendas had never been so directly and strongly linked. This was made all the more important given the diversity of backgrounds represented in the discussion.

Through their deliberations the panel outlined a long term vision and roadmap for implementation including identification of a potential **“grand challenge”** to act as a centerpiece for a relevant **“movement”** in support of these development and climate change agendas.

It is essential to recognize the breadth of the context of these discussions and the charter of the panel which was specifically asked to consider:

- Frameworks, prioritization
- Cost recovery
- Preparation, sequencing and efficient delivery
- Instruments and mechanisms to stimulate blended finance/long term finance/institutional investor interest
- Regulatory obstacles to long term finance
- Establish regional institutional investor groups
- Resilient, sustainable and productive infrastructure investments
- Cities, key industrial sectors, key public goods
- Long term vision and route maps for implementation

From their deliberations the panel identified an initial roadmap and some associated actions, challenges and opportunities that are described below.

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As a first step in defining the roadmap it was determined that one first needed to know where they were going before they laid out a course of action. This essential destination was addressed through a proposed establishment of a global vision for the world's infrastructure to meet the post – 2015 development and climate change agendas.

## **A Vision**

This vision was proposed to be to “**Transform the world's infrastructure to meet the economic, environmental and social challenges we are collectively facing.**” This is a bold vision indeed.

It was felt that there were at least three key attributes to be associated with this transformative vision:

- Capital efficiency
- Resilient to changing global climates
- Reducing global poverty through economic enablement

It was felt that the agreement and articulation of this (or comparable) vision by world leaders at a global forum (public, private, NGO, other stakeholders) could be a transformative “**moment**” and would represent a powerful and compelling challenge and message.

## **Infrastructure Needs**

The panel then turned its attention to identification of infrastructure needs recognizing that they must:

- Be driven by a set of regional and national strategic objectives linked to the transformative vision
- Be cognizant that sustaining solutions are required for infrastructure systems and solutions
- Recognize the need to put in place the various frameworks required for success. Such frameworks include, but are not limited to:
  - Governance, including anti-corruption and transparency
  - Prioritization of infrastructure needs
  - Funding and finance
  - Dramatic improvements in project execution

It was highlighted that the current projections on infrastructure funding shortfalls may not adequately consider:

- The infrastructure needed to address global climate change (increases gap)

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- Opportunities to narrow the gap through dramatic improvements in capital efficiency especially with respect to reductions in life cycle costs (narrows gaps)

The discussions highlighted the need to better understand each of these fundamental drivers and opportunities.

### **Infrastructure prioritization**

It is important that a well defined pipeline/program of infrastructure projects exist; that such projects support the strategic objectives identified at the national or regional level; and that this pipeline be prioritized. Current prioritization efforts often lack the degree of transparency considered as a requirement for efficiently attracting capital and existing prioritization efforts may lack adequate multi-stakeholder engagement and alignment

Prioritization efforts may be improved to the extent that guidance could be provided with respect to the various “**classes of factors**” to be considered. Selection of actual factors to be used would be with full cognizance of these enveloping factors with weighting determined on a program or project basis, but in a transparent way. It was felt that ongoing efforts in infrastructure in multiple forums could consider what might constitute these “classes of factors”. It was expected that these “classes of factors” would include life cycle and triple bottom line considerations.

### **Other Elements**

Finally, the discussions sought to identify other elements essential for effective infrastructure delivery. Key elements identified included:

- Program/pipeline approval
  - Transparent
  - Cognizant of the “value of time”
  - Strong link to “vision” derived strategic objectives
- Project preparation
  - Reference was made to work of several organizations (WEF; APEC; ADB) in this area
  - The importance of putting in place strong governance frameworks as part of this project preparation activity was highlighted
  - Recognition that this represents a significant opportunity to contribute to capital efficiency through various de-risking activities including:
    - Clear project definition that is “needs” not “wants” driven
    - Development of a shared risk register to drive risk identification and allocation from the outset of the project

- Identification of IFI, NGO or governmental financing or risk mitigation needs/opportunities
- Market testing
- Preliminary project approval
  - Updated governance framework based on “learnings” from the project preparation stage
  - Strategy selection focused on capital efficiency with particular emphasis on the contributions from:
    - Funding strategies (how is project revenue maximized or the level of government contribution minimized)
    - Execution, both initial and on a life cycle basis. It was with respect to execution of the various projects that the breakout group highlighted a potential “**movement**” that would significantly contribute to achievement of the post – 2015 development and climate change goals by helping close the current infrastructure deficit, even in light of the upward pressure that new climate change resistant infrastructure would place on infrastructure funding. This potential “**movement**” was envisioned to be driven by a “**grand challenge**” that was articulated as “**Reduce life cycle costs of new infrastructure systems and projects by 50% by 2030 and significantly improve the life cycle cost performance of existing infrastructure systems throughout this period**”. It was recognized that this “grand challenge” could be restated in terms of improving capital efficiency
  - The special role and challenges of cities both with respect to global climate change and poverty reduction goals was recognized
  - The importance of community based resilience was similarly noted
  - Defining value for the money thresholds which drive improving levels of capital efficiency
  - Defining the value of time in order to drive timely approvals and decision making. The negative impacts of delayed approvals and slow project level decision making on capital efficiency was highlighted.
- Engage the marketplace
  - Strong anti-corruption focus (PACI referenced as starting point)
  - Strengthened frameworks in place
  - Identified gaps have been closed or significantly de-risked
  - Transparent procurement process in place and well defined
- Final project approval

- Delegations of authority to the lowest appropriate level to drive timely execution
- Updated governance frameworks support project strategy
- Independent oversight and audit regime appropriate to level of investment and risk in place
- Execute
- Accept
- Operate
- Renew/Improve

## **Conclusion**

The common recognition of infrastructure as an essential enabler and key transformative ingredient in meeting global scale challenges was refreshing, especially given the scope of the initial agendas (post-2015 development and global climate change) and the diversity of backgrounds of the panel’s participants. The “**grand challenge**” laid out should be a rallying point for infrastructure agents at global, national, regional and local levels.

## About the Author



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**Bob Prieto** is a senior vice president of Fluor, one of the largest, publicly traded engineering and construction companies in the world. He focuses on the development and delivery of large, complex projects worldwide. Bob consults with owners of large engineering & construction capital construction programs across all market sectors in the development of programmatic delivery strategies encompassing planning, engineering, procurement, construction and financing. He is author of “Strategic Program Management”, “The Giga Factor: Program Management in the Engineering and Construction Industry” and “Application of Life Cycle Analysis in the Capital Assets Industry” published by the Construction Management Association of America (CMAA) and “Topics in Strategic Program Management” as well as over 500 other papers and presentations.

Bob is a member of the ASCE Industry Leaders Council, National Academy of Construction and a Fellow of the Construction Management Association of America. Bob served until 2006 as one of three U.S. presidential appointees to the Asia Pacific Economic Cooperation (APEC) Business Advisory Council (ABAC), working with U.S. and Asia-Pacific business leaders to shape the framework for trade and economic growth and had previously served as both as Chairman of the Engineering and Construction Governors of the World Economic Forum and co-chair of the infrastructure task force formed after September 11th by the New York City Chamber of Commerce. Previously, he served as Chairman at Parsons Brinckerhoff (PB), one of the world’s leading engineering companies. Bob can be contacted at [Bob.Prieto@fluor.com](mailto:Bob.Prieto@fluor.com) .