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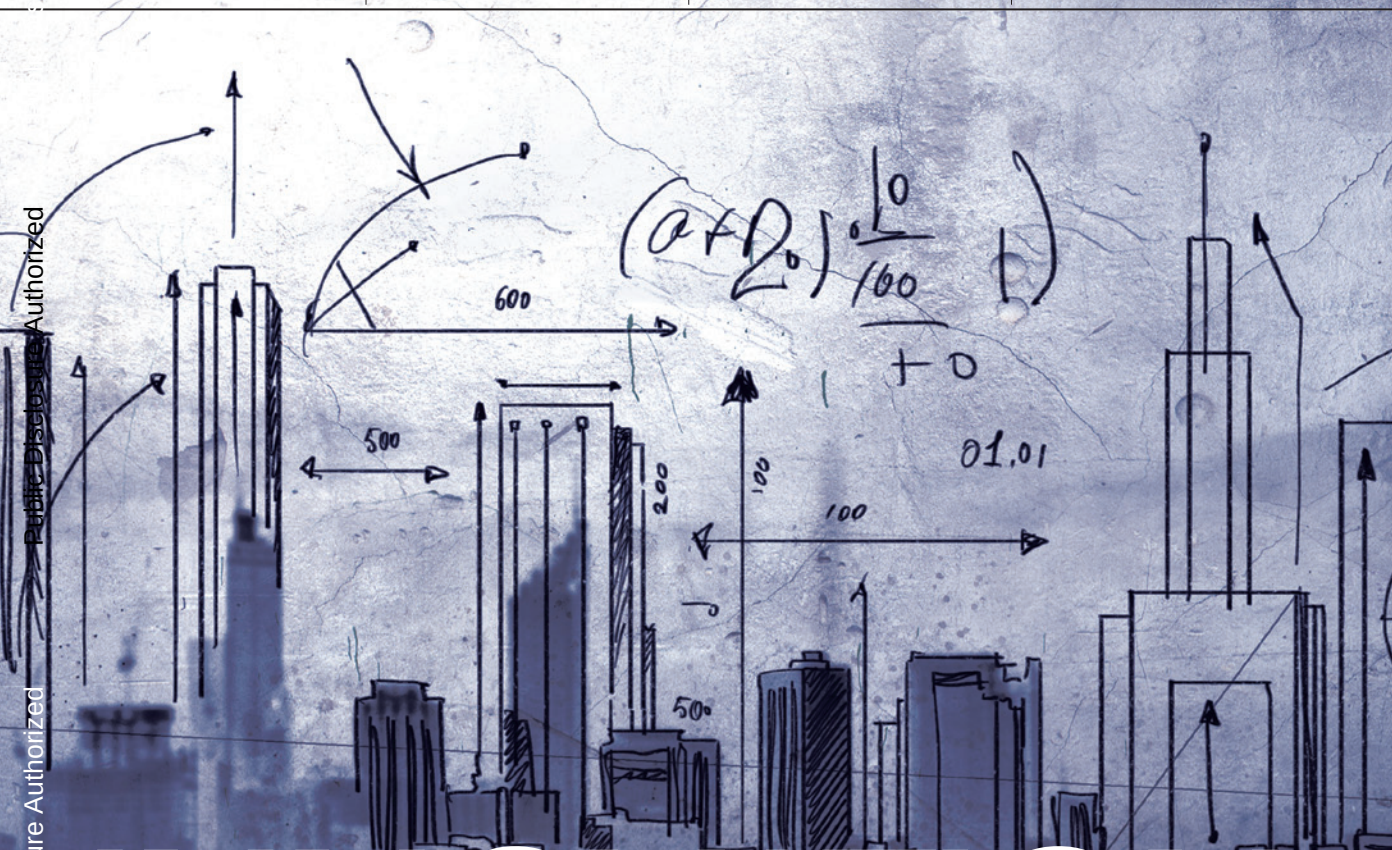

INNOVATION

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CREDITS

LETTER FROM THE EDITOR

WELCOME TO THE INNOVATION AGE

"An age of constant invention naturally begets one of constant failure," the *New York Times Magazine* declared in a recent story called "Welcome to the Failure Age." Its core premise—that innovation is inextricably linked with failure—may be a fresh insight for the high-tech era, but has long been understood by those who work in infrastructure. To state the obvious: for those of us in infrastructure PPPs, failure is not a novel concept. Innovation is. The interplay between the two, with attention to the iterative learning that is necessary to morph missteps into course corrections, is the focus of this issue.

How appropriate, then, to admit that *Handshake* has learned a few lessons of its own since the first issue launched in 2011. Our redesign emphasizes content our readers asked for in last year's survey, including a section that profiles the head of a national PPP unit, with background on how the unit's goals meet its government's needs. A new column, "Master Class," answers readers' need for a PPP 101-style lesson on a specific technical aspect of PPPs. These and other new features, along with the entire, searchable *Handshake* archive, now live on www.handshakejournal.org.

But not everything in *Handshake* is new. We continue to believe that the human stories behind PPPs are compelling enough to share with a wide audience; we remain committed to telling those stories in ways that will allow readers to replicate the elements appropriate to their own situation. Once the seeds of those ideas are planted, innovation has already begun to germinate.

Tanya Scobie Oliveira
Editor-in-Chief

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Senior Director, PPP Group


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Kang-Soo Kim

Isabel Rial is a senior economist in the Expenditure Policy Division in the Fiscal Affairs Department at the International Monetary Fund. She works on a range of cross country fiscal policy issues, particularly focusing on PPPs, fiscal risks management, and fiscal rules. She has more than 20 years of experience in the public sector and the International Monetary Fund and has consulted for a number of private sector entities.


Gajendra Haldea

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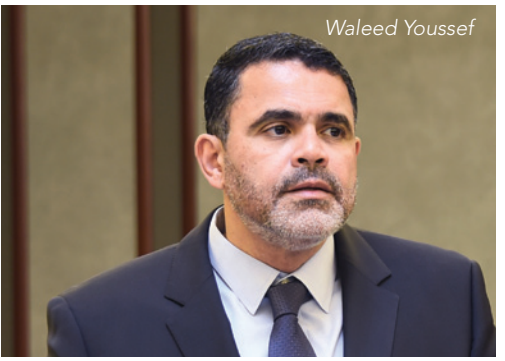
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FEATURES

COLUMNS & DEPARTMENTS

EXPERTS

PPP INSIDER

REPUBLIC OF KOREA'S PPP UNIT REINVIGORATES THE REGIONAL ECONOMY

Kang-Soo Kim is Executive Director, Public and Private Infrastructure Investment Management Center (PIMAC), at the Korea Development Institute (KDI), the Republic of Korea's leading think tank on national economic development. As part of KDI, PIMAC is responsible for comprehensive management of public and PPP investments; it provides ex ante *and* ex post *evaluations on government projects and supports implementation of PPP projects. Here, he explains to* Handshake *readers how national PPP units can influence regional economic performance.*

What advice would you give governments creating a PPP unit?

First, for a government considering this, the vision for PPP needs to be established and shared with others. Second, clearly distinguished roles and functions must be institutionalized. Third, expertise needs to be developed in fields like law, finance, accounting, economics, development, and engineering. Fourth, active benchmarking of developed PPP economies and cooperation with other PPP units should be encouraged and promoted.

Overall, it's critical to remember that a PPP unit's expertise and capacity is not built overnight. So my final piece of advice is that while experience is built, remaining patient is just as important as maintaining a clear vision of PPP.

What makes PIMAC effective?

The legal and institutional system that guarantees independence and objectivity to the evaluation body is the most important element here. A PPP unit should not be in any way influenced by other players in a PPP project—whether the budget authority, the competent authority, or the private concessionaire. The government is vulnerable to political influence although the private sector is the project stakeholder. Independent and objective assessment by the PPP unit is therefore all the more crucial. It is important that the government lends its support, and that all decision-making reflects evaluations made by the PPP unit.

For the PPP unit to maintain independence and objectivity, the roles and functions of each key player should be clearly defined in the legal and institutional system, and they should be respected and acknowledged. In addition, the government needs to allow the PPP unit to expand its expertise and to build capacity.

How does PIMAC work with other infrastructure investment institutions in the Asia-Pacific region?

Many countries at the PPP development stage have requested consulting and advice from PIMAC. Since 2008, capacity building programs have been held for government officials from Azerbaijan, Bangladesh, Kazakhstan, Mongolia, and Thailand, among others. The Asia Public-Private Partnership Practitioners' Network (APN), co-hosted with the World Bank and the Asian Development Bank, has held an annual training program for PPP practitioners throughout Asia. The PIMAC Knowledge Sharing Program (KSP) channels PIMAC's expertise and know-how to developing countries. Algeria, Cambodia, Indonesia, and Mongolia have been in direct contact with PIMAC for KSP during the past five years.

What can other governments learn from PIMAC?

One of the most common remarks after knowledge-sharing with PIMAC takes place is that our input has allowed the PPP unit that sought our advice to strengthen its relationship with the finance ministry. After consultation with PIMAC, the finance or the budget ministry becomes more aware of the importance of coordination with the PPP unit in facilitating project implementation and preparation of PPP documents. Our advice has also led to the development of PPP laws and guidelines.

It has been very fulfilling to hear about PIMAC's impact in the region. Following Mongolia's exposure to our Knowledge Sharing Program, for example, that country drafted its PPP Handbook. And after the Vietnamese government requested a visit from the PIMAC delegation, officials there drafted Vietnam's PPP Law.

How does the PIMAC monitoring and evaluation approach contribute to the PPP learning cycle?

Evaluation processes at each stage of PPP implementation, such as assessment of project proposal, and review of draft concession agreement, are all useful, and PIMAC's input makes project implementation more efficient. Management of projects at the operational stage is also an important place for the monitoring process. Through the ex-post evaluation and

EVOLUTION OF A PPP UNIT

HOW PIMAC ADAPTS TO FAST-GROWING PPP INVESTMENT

When PIMAC was founded, PPP processes were at an earlier stage of evolution and we in the unit were still developing our own areas of expertise, so our framework, our outlook, and our goals were different. In those days, functions mainly concerned selecting project concessionaires through project assessment, formulation of RFPs, and review of draft concession agreements. But as the unit gained more and more expertise and accumulated experience on PPP implemen-

monitoring, government officials are more likely to be alert of any contingent fiscal risk or burden. This makes it easier to look for measures to mitigate such risks. PIMAC also adds value with refinancing gain sharing and dispute resolution.

What are your predictions for Korean PPPs?

There is a possibility that the PPP market in Korea will expand further, but with a relative decrease in infrastructure investment by conventional procurement methods or SOE investment, due to a focus on fiscal soundness. However, the issue on the appropriate stock and investment amount of traditional physical infrastructure, such as road, railroad, airport, and port, is expected to continue, making future prospects on the PPP market in this area rather gloomy.

On the other hand, government budget restructuring, emphasis on fiscal soundness, and introduction of private sector efficiency have improved PPP market prospects for social welfare, defense, and environmental facilities. We expect that projects with a lower rate of return with lower risk will increase in number, and overseas PPP market development will expand further.

tation, PIMAC's role expanded to building the basic policy system and structure of PPPs. PIMAC then began drafting and publishing guidelines for value for money tests, guidelines for selection of potential concessionaires, standard concession agreements, and standard RFPs.

As the scale of PPP investment grew and new implementation arrangements were introduced, it became clear that PIMAC's most useful contribution could be in providing a comprehensive evaluation framework, along with objectivity and consistency, to the project implementation process. As the unit moved in that direction, PIMAC's role has grown further—to providing policy recommendations on improving governance and institution of the PPP system as a whole.

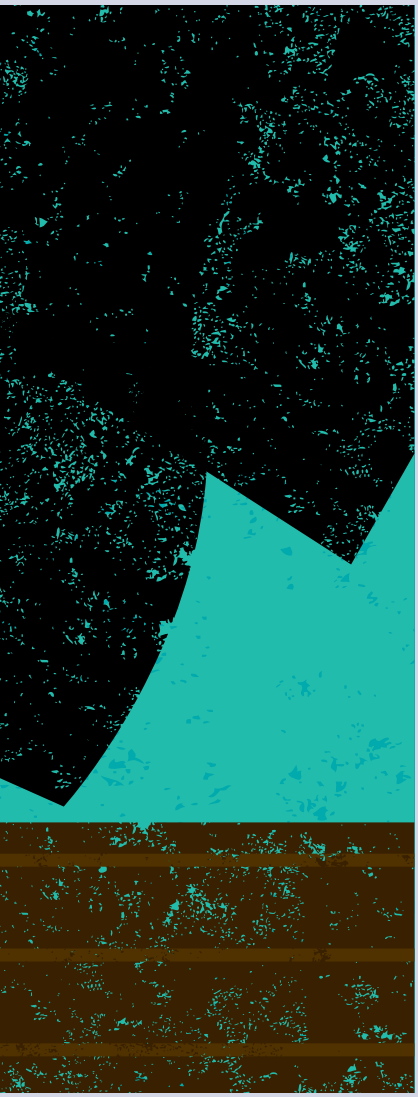
With an increasing number of projects at the operational stage, there is a greater need today for ex-post management and evaluation of projects, such as conflict resolution or refinancing gain sharing between the public authority and the private concessionaire. PIMAC's newest function—refining project evaluation and management schemes in accordance with changes to the environment surrounding infrastructure development—reflects this development.

—Kang-Soo Kim

FROM LESSONS TO PRINCIPLES

THE PUBLIC GOVERNANCE OF PPPs

Ian Hawkesworth, OECD PPP Network



The OECD is in a unique position to assist member countries in responding to the challenges of using public-private partnerships (PPPs) to deliver public services efficiently and effectively. Using lessons learned by member countries, the OECD developed principles for the institutional and procedural treatment of PPPs. These principles, based on experience, help governments implement PPPs without jeopardizing fiscal sustainability.

The OECD's PPP Principles are based on lessons gleaned from mistakes, missteps, and project twists that could never have been predicted at the outset, and these tenets will aid decision makers facing the tradeoffs among three demands inherent in developing a PPP.

First, the public sector must be a prudent fiscal actor. It falls on the decision-maker to ensure that the PPP is affordable, that it represents adequate value for money, and that any fiscal risks, such as contingent liabilities, are limited. Second, the demands for investment from particular sectors such as transportation,

health, and education have to be assessed prudently against each other so that the projects that are pursued are those that yield the highest return on investment for society as a whole. Finally, decision makers must balance the risks taken by the private sector and those retained by the public sector. It also requires deciding what the appropriate price of such a transfer should be.

There is not necessarily one right solution to these tradeoffs; much will depend on the concrete circumstances of each project. However, these principles—which promote a focus on value for money, efficiency, effectiveness, and transparency—have guided OECD PPP Network officials to the best outcomes.

Establish a clear, predictable, and legitimate institutional framework supported by competent and well-resourced authorities

- The political leadership should ensure public awareness of the relative costs, benefits, and risks of PPPs and conventional procurement. Popular understanding of PPPs requires active consultation and engagement with stakeholders as well as involving end-users in defining the project and subsequently in monitoring service quality.
- Key institutional roles and responsibilities should be maintained. This requires that procuring authorities, PPP units, the central budget authority, the supreme audit institution, and sector regulators are entrusted with clear mandates and sufficient resources to ensure a prudent procurement process and clear lines of accountability.
- Ensure that all significant regulation affecting the operation of PPPs is clear, transparent, and enforced.

Use the budgetary process transparently to minimize fiscal risks and ensure the integrity of the procurement process

- The project should be treated transparently in the budget process. The budget documentation should disclose all costs and contingent liabilities. Special care should be taken to ensure that budget transparency of PPPs covers the whole public sector.
- Government should guard against waste and corruption by ensuring the integrity of the procurement process. The necessary procurement skills and powers should be made available to the relevant authorities.

Ground the selection of PPPs in value for money

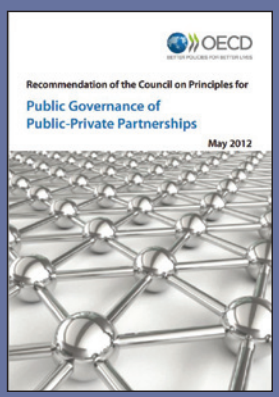
- All investment projects should be prioritized at senior political level. As there are many competing investment priorities, it is the responsibility of government to define and pursue strategic goals. The decision to invest should be based on a whole of government perspective and be separate from how to procure and finance the project. There should be no institutional, procedural, or accounting bias either in favor of or against PPPs.
- Carefully investigate which investment method is likely to yield the most value for money. Key risk factors and characteristics

of specific projects should be evaluated by conducting a procurement option pre-test that enables the government to decide on the path forward.

- Transfer the risks to those that manage them best. Risk should be defined, identified, and measured.
- The procuring authorities should be prepared for the operational phase of the PPPs. Securing value for money requires vigilance and effort of the same intensity as that necessary during the pre-operational phase.
- Value for money should be maintained when renegotiating. Only if conditions change due to discretionary public policy actions should the government consider compensating the private sector. Any renegotiation should be made transparently and subject to the ordinary procedures of PPP approval. Clear, predictable, and transparent rules for dispute resolution should be in place.
- Government should ensure there is sufficient competition in the market by a competitive tender process and by possibly structuring the PPP program so that there is an ongoing functional market. Where market operators are few, governments should ensure a level playing field in the tendering process so that non-incumbent operators can enter the market.
- In line with the government's fiscal policy, the central budget authority should ensure that the project is affordable and the overall investment envelope is sustainable.

> "There is not necessarily one right solution to these tradeoffs; much will depend on the concrete circumstances of each project."

This article is based on the OECD report "Recommendation of the Council on Principles for Public Governance of Public-Private Partnerships," OECD Publishing. Any additional opinions expressed or arguments employed herein are solely those of the author and do not necessarily reflect the official views of the OECD or its member countries.



For more information and a detailed exploration of each of these principles, see "Recommendation of the Council on Principles for Public Governance of Public-Private Partnerships," OECD Publishing, May 2012.

MONEY TALKS

DEBUNKING THE MYTH OF THE "QUICK AND EASY" PPP

Jeff Delmon

Jeff Delmon is a Senior PPP Specialist for the World Bank Group based in Dar es Salaam, Tanzania. He specializes in PPP transactions, frameworks, and financing.

This article will give you everything you need to know to achieve quick and easy PPP results, with zero preparation, very little effort, and no need to provide money or guarantees...

Don't you just wish? Everyone who has ever worked on a public-private partnership yearns for this sort of foolproof, one-size-fits-all solution. But there's no fast-forward to success when it comes to PPPs. They can bring great benefits, but this outcome requires time, effort, and investment.

And yet, governments everywhere seek the holy grail and insist on following the many PPP pied pipers. This merits a quick explanation. According to legend, the pied piper of Hamelin wore a multi-colored ("pied") cloak and played a pipe. He was hired by the village to lead the rats out of town, which he did, but when the villagers did not pay his fee he led the children out of town, never to be seen again. Governments also seem to want to take the easy route, trying to get it cheap and fast. This never works.

There are many examples of bad practices that emerge from the desire to get it done quickly. These cases may show poor decision-making, but these models are not inherently flawed. There is no reason not to ask for construction and financing together in the same tender process; there is no reason that government funding/export credit agencies should not be an integral part of project procurement.

What fails, inevitably, is the effort to shortcut good preparation and robust competition. Government needs to take time to work out what it wants, when it wants it, what (if anything) it is willing to pay for or guarantee, and how different project risks are going to be managed and allocated. Once the government decides on its project and determines its role, a competitive process should be used to select the private partner.

Here's why: competition helps to get the best deal and demonstrates that the project is awarded properly and transparently, with opportunities offered to the best investors. It takes time. It requires funding and the relentless efforts of experienced staff. But the results are clear—there is no substitute for doing it right.

WHAT NOT TO DO: THREE TYPICAL SCENARIOS

A company or foreign government shows up at the relevant ministry with promises to solve the officials' most pressing problems quickly, easily, with no effort. The fact that no other government in the world has found this easy solution does not seem to bother these officials, who are relieved to have something to believe in. This generally results in years of discussions, negotiations, signed memorandums of understanding, and ribbon cutting—but no progress. Instead of results, there are delays, mounting costs, and frustration for everyone involved.

An interesting twist was achieved by an East African country. The process started with a European government offering financing if a company of its nationality were to be selected to build the infrastructure. Officials issued a limited tender, exclusive to consortia originating in that particular country. This is a big no-no for OECD member nations. However, despite protestations from the other European governments, the project is under construction, and results are visible. At least this case involved some competition, and actual infrastructure development—a much better outcome than other such efforts, but with room for many questions to be asked.

> "Governments seem to want to take the easy route, trying to get it cheap and fast. This never works."

The government issues a tender, asking bidders to design, build, and finance infrastructure. There is little detail, and almost no analysis or effort behind the tender. The private sector is expected to do everything, including to guess what the government wants now and for the next 30 years. Based on experience, bidders are not convinced this is a workable proposition. For example, during discussions over three years ago when an East African project was brought to market in this way, the government rejected using a competitively procured PPP as it "takes too long." Despite the project's status as one of the more exciting in Africa, and the commercial dynamism of the country in question, the response was poor, with only one bidder—and despite promises, it turned out that bidder did not actually have the financing. Government officials did not uncover that bit of intel until after they had signed an agreement with the bidder. Over three years later, there is no real construction in sight.

INNOVATING AT SCALE

THE CASE FOR GLOBAL ADAPTATION OVER EARLY ADOPTION

"Is the hamburger innovative?"

Aleem Walji, World Bank Group

I used to think that innovation was a close cousin of risk—that the whole point was venturing into unknown markets to do something that had never been done before. But when it comes to infrastructure public-private partnerships (PPPs), especially those that have a positive, long-term impact on millions of people, I've seen enough significant, successful partnerships to understand that innovation doesn't have to be about creating new things all the time. It's just as important and valuable to take something that's new in a particular context and make it work.

Any innovation ecosystem needs early adopters and scalers. The latter group is especially relevant for PPPs that the World Bank Group advises and invests in. Institutions like the World Bank Group can't compete with smaller, nimbler, and more risk-tolerant firms and social enterprises when it comes to innovating at speed. But when it comes to recognizing PPP approaches that work, World Bank Group advisors can evaluate them rigorously, share the lessons widely, and adapt the models to a variety of contexts. That's innovating at scale. It's less about early adoption and more about global adaptation. It's about anchoring and contextualizing policy and business model innovations within a variety of geographies with different political, social, and economic realities. Even for PPPs, which must be tailored carefully to fit local and regional needs, there can be no "boutique" innovation, which guarantees one-time success. In seeking scaleable solutions, we pursue PPPs—often pilots—whose successes can be replicated.

> "Innovation doesn't have to be about creating new things all the time."

There's a great example in progress right now in Benin, where rural water systems have historically been operated by local communities, with uneven success. In 2006, the Government of Benin began to transfer the management of these water systems to private operators under a lease/affermage arrangement. In 2010, the World Bank Water and Sanitation Program (WSP) commissioned an assessment of the performance of the privately-run water systems. It uncovered a number of shortcomings, including the lack of capacity on the part of the local private operators, weak and short-term contracting arrangements, and challenges for all parties in fulfilling their contractual obligations. The World Bank Group worked to strengthen the contractual framework with capital investment from the Dutch Cooperation (the Netherlands Embassy in Benin), which allocated up to $1 million in grants. IFC was the lead transaction advisor, structuring, tendering, and implementing a PPP for ten pilot sites.

A strategic partnership with the WSP played a pivotal role in fulfilling the government's objective of leveraging the private sector's capacity to improve the quality and sustainability of water supply in rural areas. Together with WSP, IFC provided strategic recommendations on an appropriate institutional framework, the range of activities to be transferred to the private sector, and a tender and regulatory framework.

So far, it's a textbook case. But IFC's experience undertaking these sorts of PPPs across the developing world paid off in an innovation that

turned the project from textbook to terrific. The new piece fell into place when IFC worked with local commercial banks to support the sector by providing financing to the concessionaires. It's a first for Benin. As a result, the financial burden on the public finances will be reduced, as historically the state has fully financed capital investment. Because the project was implemented as a pilot for broader sector reform, scaling-up this approach is the next step. It will include more rural water supply schemes across the country and enable a larger number of people to benefit from improved access to water.

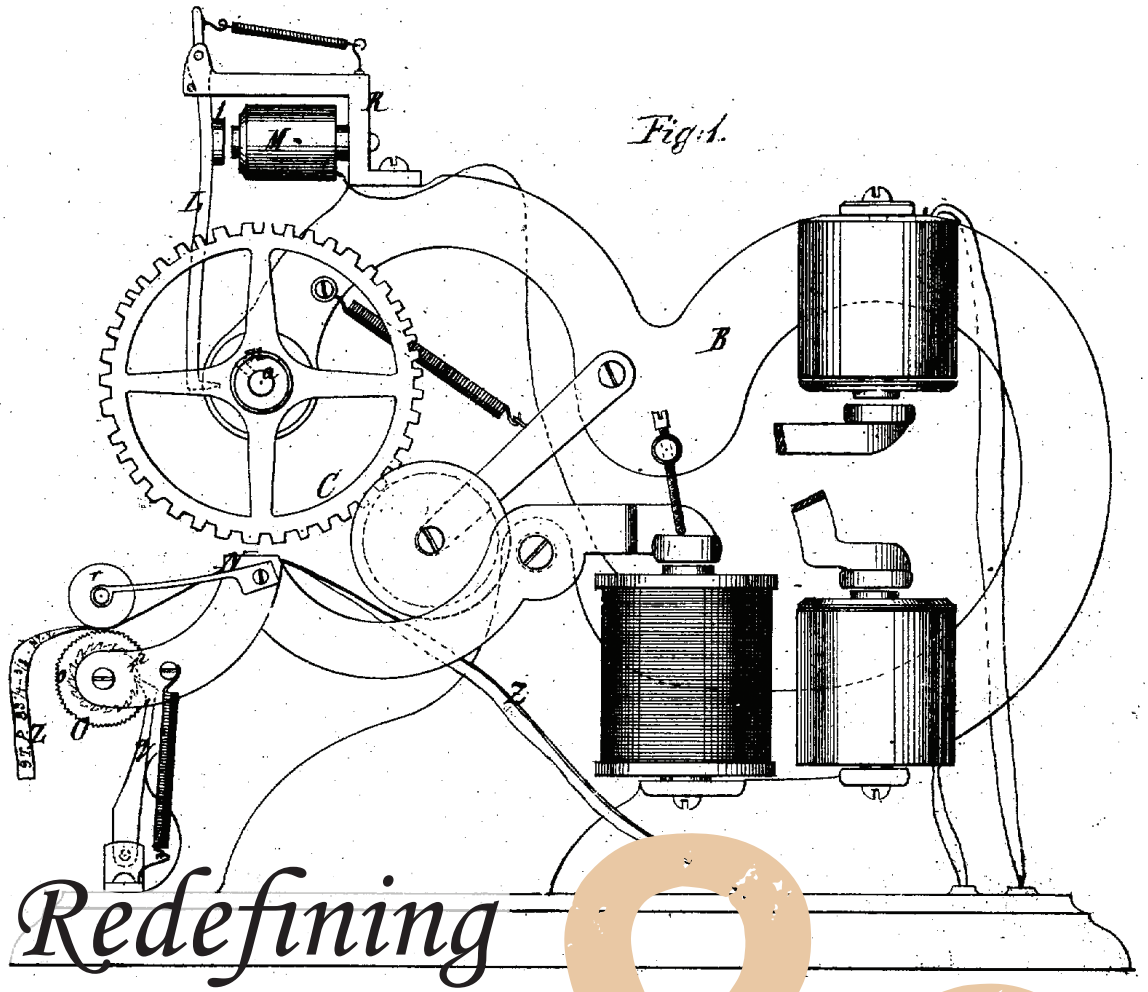
In retrospect, these steps seem perfectly reasonable. But approaching local commercial banks to support the sector had never been attempted before in Benin, nor had the idea of implementing a pilot that would institutionalize these innovations. This illustrates the truism that lessons are seldom earth shattering and usually intuitive. We hear things like "design for growth and scale from the beginning," "recruit leaders with strong social and political capital," "learn and adapt as you implement," "pay attention to process and product," "work the system top-down and bottom-up simultaneously." When these elements come together, there's a foundation that welcomes innovation.

> "Even for PPPs, which must be tailored carefully to fit local and regional needs, there can be no "boutique" innovation, which guarantees one-time success. In seeking scaleable solutions, we pursue PPPs—often pilots—whose success can be replicated."

REINVENTING "RESULTS"

For PPPs, markets and governments are the two surest pathways to scale. For lasting results, public and private actors must work together in ways that leverage the strengths of both. A project that's both innovative and successful requires discipline in identifying the most promising models no matter where they come from, a willingness to test them and evaluate them rigorously, a commitment to learning what works and doesn't work, sharing this knowledge widely through communities of learning and practice, and getting really good at adapting models to local contexts. None of that is easy, but it's essential—because it translates into results.

Innovation for PPPs requires recognizing the precise elements of what works, evaluating those models, generating and diffusing knowledge, and replicating the approach while adapting policies and requirements to local contexts. Innovation doesn't have to be about creating new things all the time, Benin's piped-in water PPP demonstrates. It's just as valuable to try out an approach that's new in a particular context. This too can disrupt the status quo, transforming the market just as profoundly as it transforms citizens' quality of life.

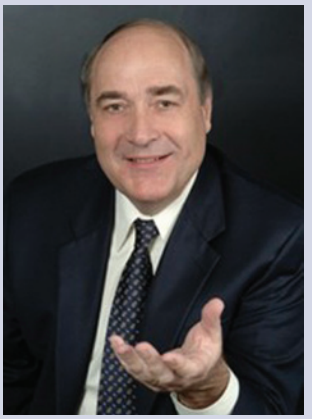


Redefining

FAILURE & SUCCESS

Why the "Brilliant Mistake" matters

Fig: 2

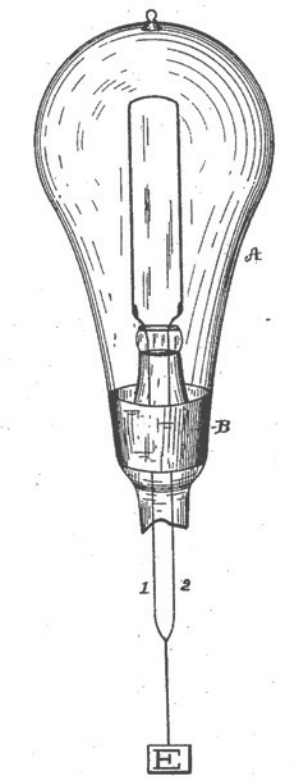


Paul J. H. Schoemaker is the author of Brilliant Mistakes: Finding Success at the Far Side of Failure *(Wharton Digital Press). He serves as Research Director of the Mack Institute for Innovation Management at the Wharton School of the University of Pennsylvania, and is also the founder and chairman of Decision Strategies International, Inc., a consulting and training firm specializing in strategic planning and executive development. Here, he explains to* Handshake *readers how making a mistake in a project—even a large-scale infrastructure public-private partnership (PPP)—can ultimately be valuable, and is often the only path to success.*

What is a "brilliant mistake"?

Everyone alive today has benefitted from someone else's huge mistake. Alexander Fleming's accidental discovery of penicillin, the world's first and most successful antibiotic, involved a sloppy lab, keen perception, and an exceptionally well-prepared mind. The ill-fated flight at Kitty Hawk resulted in modern aviation. If you think of mistakes as potentially powerful "portals of discovery," you start to see the beneficial side of error and the way it can lead to innovation.

In doing business today, the challenge for managers is to recognize that there must be room to make mistakes, and this can only happen if leaders create sufficient space for productive mistakes to occur. This is no secret among successful managers. As IBM founder Tom Watson famously observed, "If you want to succeed faster, make more mistakes." Although some situations clearly cannot afford any mistakes, such as brain surgery, flying an airplane, or running a nuclear power plant, whenever innovation is important, some degree of error needs to be tolerated. Albert Einstein put it very well: "If you have never made a mistake, you have never tried anything new."



Is it possible to learn from other PPPs' mistakes or is each project too different?

People have a uniqueness bias, which means they think their project is not like any other—so in some misguided way, they believe that lessons from other projects may not apply. But a more strategic leader would say that a seemingly unique project to build a long bridge or a complex railway is just one of many that we have experience with, either in total or with respect to key components. This means that we can, and indeed must, try to tap into those past experiences. If not, you will simply repeat mistakes others already made that can be avoided. It is a fool who only learns from his own mistakes; you need to profit from other people's mistakes also.

But isn't it preferable to avoid a mistake in the first place? With PPPs for large infrastructure projects, there is often so much at stake, there is no room for missteps.

It's true that most books on decision-making encourage you to focus narrowly on mistake avoidance, rather than provoking you to plan for the stream of decisions that you will face tomorrow. And I am not advocating that a mega-project should be put at risk in its totality to learn. But smaller pieces could often serve this purpose well, especially if new technologies or approaches are involved or you have little expertise in parts of the projects. We emphasize the role of rational decision making and planning a great deal but in doing so may undervalue the power of accidental learning. Leaders need to encourage strategies that allow for serendipity, even if they cannot always be analytically justified. This is the challenge of innovation, entrepreneurship, and indeed strategic leadership.

> "Long-term performance can only be achieved through learning by failure. Every mistake or setback has a silver lining."

In a complex PPP, you may encounter a *coup d'etat* leading to a government change, a natural disaster that alters the course of a project, or the domino effect of an international financial collapse. Apart from trying to survive such shocks, a key challenge also is to learn from them in terms of better anticipating such events in the future, or sharing lessons about how to recover with colleagues. This is the essence of being a learning organization as opposed to only a performance organization. The aim is to get better over time, and such long-term performance can only be achieved through learning by failure. Every mistake or setback has a silver lining. But

instead of hiding mistakes, organizations need to reward people to make hay when things go haywire, as counterintuitive as this may sound.

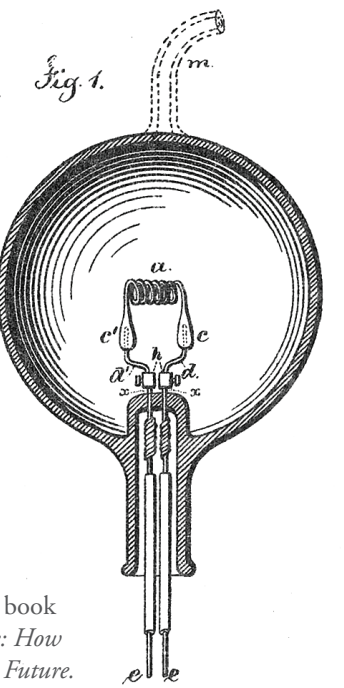
Should people use the word "failure" when talking about a project they learned from?

We've all heard the phrase "Success has many fathers, but failure is an orphan." In business, failure can seem like a dirty word. If it happens, no one wants to talk about it. Calling it an "outcome" is more neutral. After all, whether you call it a success or failure is quite subjective and depends on your criteria. Do you define success on the basis of the decision process that was used, or the outcome? Does a bad outcome necessarily imply a mistake was made? And do all good outcomes always imply success, or could it just be dumb luck? We need to be sensitive to process.

You suggest ways to make a "deliberate" mistake to create something better. Why do this?

Once you grant that mistakes can be portals of discovery, then you may not want to leave this valuable process up to chance but start to seed or even plan for it. A deliberate approach to making mistakes seems crazy at first, but smart people do it to accelerate learning and achieve higher performance. For those who deem the notion of a Brilliant Mistake to be an oxymoron, I would suggest that each of us has blinders on. The only escape is for others to show us new pathways or for you to do it on your own. The latter route requires trusting our intuition at times. More subtly, a deliberate mistake can also be viewed as a hedge against conventional wisdom, one that will have a high payoff precisely when the majority view of the crowd happens to be wrong.

> "Whenever innovation is important, some degree of error needs to be tolerated. Albert Einstein put it very well: 'If you have never made a mistake, you have never tried anything new.'"



Paul Schoemaker's newest book is *Winning the Long Game: How Strategic Leaders Shape the Future.*

5 TOP TAKEAWAYS FROM **BRILLIANT MISTAKES**

Fig: 1

It is important to embrace the learning potential of mistakes—first, by overcoming the shame and fear that lead us to overlook the covert messages they carry about how we make decisions.

Fig: 2

To learn from a mistake, it's critical to separate the decision process—the part that you own—from the outcomes, which are usually influenced by multiple factors.

Fig: 3

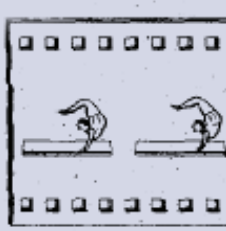
There is a difference between silly errors and brilliant mistakes, and it all hinges on the relative costs and benefits of what is at stake. Designing for, and learning from, a mistake can make it "brilliant."

Fig: 4

In some cases, it's advisable to allow room for mistakes to be made. Just as random mutations have advanced evolution, clever, well-designed mistakes can further human progress by opening new portals of discovery.

Fig: 5

In a world where random factors influence outcomes, we need to be sensitive to process. If you base success entirely on outcomes, you are rewarding good luck or punishing bad luck, as well as skill. Good companies do both. To fairly evaluate a team or plan, you have to look at both.



COURSE CORRECTIONS

How small innovations make a big difference in waste sector PPPs

Dan Hoornweg,
University of Ontario Institute of Technology

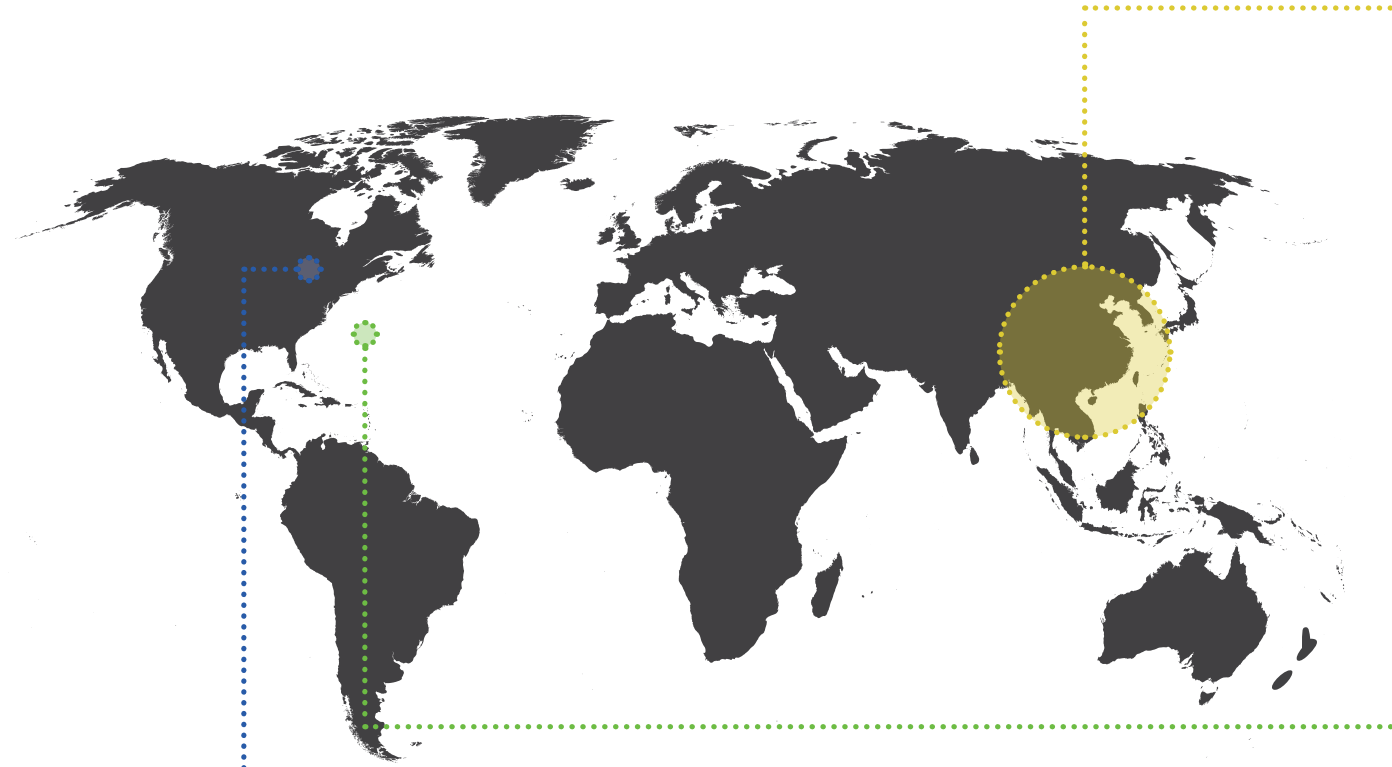
The adage "Where there's muck, there's money" rings ever truer as global municipal solid waste management budgets approach about $375 billion per year. Bringing PPP initiatives into the waste sector has the potential to introduce significant efficiency gains, but requires creative thinking to safeguard the desired outcomes. These examples show how mid-course corrections are critical to an iterative learning process.

The waste management sector usually provides one of the most obvious entry points for PPPs in any country. But easy answers are usually illusory. Cities tend to follow a hierarchy of sustainability (similar to the waste management hierarchy: reduce, reuse, recycle). Any city, or country, trying to increase its sustainability will need to first properly collect and dispose of its waste. The way the private sector is involved in this effort, with mutual respect, efficiency, and hopefully a good measure of humility and honesty, is one of the most powerful indicators of a city's overall sustainability.

Bringing the private sector and new efficiencies into the waste business can work if the players are prepared and combine innovation and iterative learning—because despite the potential efficiency gains and financial savings, the waste management industry is one of the most challenging places for a PPP to operate. In the U.S., for example, the sector's origins land it in the earliest days of organized crime. These aren't just myths; a few years ago, sales of mozzarella cheese were curtailed in southern Italy when dioxins were found, apparently having made their way into the cheese from improperly disposed waste by the mafia. And cities in several developing countries are known to have "phantom employees" among their waste workers.

> When a $100,000 truck sits idle as a driver spends minutes to retrieve a bottle or two worth 10 cents, no one can deny a flaw in the process.

But when PPP players are committed to results, the past is not prologue. Here are some examples of situations in the waste industry that seemed ripe for failure—but which were ultimately saved by creative thinking. Applying this spirit of innovation to other PPP scenarios may inspire those whose projects are balancing tenuously on the tightrope.



GUELPH, CANADA

In 1987, the Canadian city of Guelph launched one of the first curbside recycling programs (the first one in North America started next door in Kitchener, Ontario). The program started off positively with new privately operated trucks and drivers for recycling. There was even a declared peace between the local union (public-sector garbage truck drivers) and the non-unionized recycling truck drivers. But the time it took to collect the recyclables was more than projected because recycling truck operators would spend precious minutes sorting through the trash to find beverage containers that listed a deposit. These deposits in turn funded all the drinks and snacks at the local store during drivers' breaks. When a $100,000 truck sits idle as a driver spends minutes to retrieve a bottle or two worth 10 cents, no one can deny a flaw in the process.

But there's always room for innovation, and in this case, a small increase in driver wages in exchange for promises to forgo the deposits solved the problem. This exemplifies a particularly creative approach to problem-solving. Knowing all of the dimensions of a scenario—in this case, the habits and backgrounds of the drivers—fed into the resolution.

BERMUDA

Another near-failure, this time in Bermuda's waste management system, threatened to tank a PPP in the early 1990s—and this one, too, rested on drivers' judgments. When new heuristic routing plans were developed to make waste collection more efficient, incentives were provided to the drivers and crews: for example, they could finish for the day when their route was complete.

It made sense in theory, yet there was incredible reluctance to the proposed changes, and efficiency stalled. The new and naïve waste manager was flummoxed, but a few weeks later one of the more helpful drivers took pity on the fresh expat and confided the truth. Turns out the crews hated the new and improved routing as the changes might interfere with potential Christmas tips from serviced residents.

Once the facts were known, working with drivers—developing existing relationships with an increased level of trust—resolved the issue. A "driver representative" was established, and tips were shared.

EAST ASIAN METROPOLIS

A World Bank Group solid waste project was designed for an important East Asian city in 1998. Learning from past mistakes, and recognizing the potential savings PPPs could bring, the project included the clever idea of leasing out collection vehicles. This would hopefully help develop local waste management companies; efficiency gains over city owned and operated trucks were virtually guaranteed. The city's Director of Waste Management, rumored to be corrupt, was eventually (finally) convinced to try the idea of leasing a few trucks as a pilot.

For a while, the project went well. All the trucks were leased and small new companies flourished. Turned out though, the relatively young companies were largely owned by friends and family of the Director of Waste Management. A subsequent revision to the program required previous waste experience for potential truck lessees. Local businesses and the Rotary Club were brought in to provide business advice and offer outside perspective on the review.

ADJUSTING THE ROUTE

Potentially disastrous developments that threaten to derail the course of a PPP are not limited to one sector or one region. Mistakes—and mistaken assumptions—plague partnerships everywhere. These potential problems can be reduced by paying attention to the impacts on all the employees (formal and non-formal), being aware of who shares in the efficiency gains, and ensuring that an iterative process is possible. Learning by doing guarantees the road will be bumpy. Learning successfully happens when you know how to adjust the route—and when players have the humility, and ability, to make the necessary changes.

In 2006 the government of New South Wales procured a $3.6 billion rolling stock PPP to build and maintain new trains for metropolitan Sydney—the largest PPP in Australia at the time. Shortly after signing, the Reliance Rail PPP won *CFO Magazine*'s Structured Finance Transaction of the Year award. But it didn't take long for things to start going wrong.

REVIVING RELIANCE RAIL

BEHIND THE PPP

Michael Schur, Castalia Strategic Advisors

What Went Wrong

Initially problems arose with the design and manufacture of the trains. In particular, during the design development stage, the independent certifier was not certifying the contractor's completion of tasks. As a result, by 2011, the first trains were being delivered over a year late. This resulted in large losses for Reliance Rail and the contractors.

In addition, the global financial crisis had a significant impact on Reliance Rail's financing, especially given the project's high leverage. The insurers were wiped out, which affected the project's credit rating; by 2012 the debt had non-investment, or junk, status.

The global financial crisis also led to a rapid increase in bank loan margins. As a result, financing Reliance Rail's drawdown facility—established pre-crisis with low margins—would have meant the banks would have lost money. The banks saw an opportunity to withdraw the facility in what they considered to be Reliance Rail's insolvency, on the basis that it wouldn't be able to repay or refinance its debt when it became due in 2018. This would deter the directors of Reliance Rail from drawing down the debt as they could be held personally liable for any debts incurred while the company was insolvent. Instead, the banks wanted the government to guarantee the $357 million senior debt or take over financing the debt itself.

THE PROJECT

The bid was won by the Reliance Rail consortium—Downer EDI, AMP Capital Investors, ABN AMRO (later taken over by Royal Bank of Scotland Group), and Babcock and Brown Partnerships (later taken over by International Public Partnerships). The rolling stock contractors included EDI Rail and Hitachi.

Reliance Rail was responsible for the design, manufacture, testing, and commissioning of 78 new trains for metropolitan Sydney; new train simulators for the training of drivers and guards; development of a new maintenance facility for up to 1,000 rail cars; and the maintenance of trains, facilities, and simulators.

The Solution

The New South Wales Treasury was concerned that this risk around the bank debt funding could unravel the whole PPP structure, forcing state government to take the $357 million in bank debt onto its balance sheet. At the same time, Treasury understood that if this risk could be dealt with, the trains would be operational by 2018 and Reliance Rail would have regular cash flows from which to service its debt when it actually became due.

Treasury's task was to find a solution while maintaining the risk allocation and structure of the PPP—and holding Reliance Rail accountable for delivering, operating, and maintaining the trains.

Instead of conceding to the banks and providing a guarantee, the New South Wales Government provided deferred equity of $175 million over six years (due in 2018), conditional, among other things, on the delivery of the rest of the trains. This plan was designed to ensure there would be enough equity to refinance the debt in 2018, so that Reliance Rail's solvency could not be in dispute and Reliance Rail could draw down the $357 million of senior debt without delay. In return for the deferred equity, the government obtained a call option to acquire the entire equity of the consortium for a nominal sum.

This solution maintained the structure of the PPP and forced Reliance Rail to address its management and manufacturing issues. Following the deferred equity arrangement, many of the practical problems with manufacturing the trains were resolved, and delivery rates began to improve. The final trains were delivered in 2014. As a result, the project will be able to generate a reliable payment stream going forward, from which it can service its debt and deliver double-digit returns. This means the government should have no difficulty in selling its deferred equity in Reliance Rail in 2018, potentially at a profit, without ever having to provide the $175 million.

The contract term was for 30 years after the scheduled delivery date of the 69th train. At the end of this period the trains and maintenance facility were to be decommissioned or handed over to the government. In return, Reliance Rail was to receive specified milestone payments during the delivery phase of the project and performance-based monthly payments throughout the rest of the project.

The finance was highly leveraged, with $2.2 billion provided by debt and only $137 million, or six percent, in equity. Most of the debt was in the form of bonds held by offshore investors, although $357 million was a senior secured bank facility. Reliance Rail did not draw down this bank debt upfront. Two monoline insurers provided credit wraps that effectively guaranteed the bond debt and resulted in a AAA rating.

LESSONS

1 Financial trouble does not have to result in the collapse of the PPP

While in the thick of dealing with the looming disaster of an insolvent PPP, it can be hard to envision any situation where the PPP doesn't collapse. Indeed, at the peak of Reliance Rail's financial trouble, the media predicted the complete collapse of the project, a massive bailout by taxpayers, and delays in delivery of the trains of at least five years. Fortunately, the government heeded the Treasury's advice to look for solutions that held the PPP together.

In the end, by addressing the cause of the problem itself—the lack of confidence in Reliance Rail's ability to refinance its debt in 2018—instead of bailing out the entire PPP, the government managed to salvage the project. In doing so, it enforced the original financing terms and ended up potentially making a profit.

2 Financing should follow rather than lead when structuring a PPP

With hindsight, it is easy to see that many pre-global financial crisis PPPs—including Reliance Rail—were overly focused on financial engineering, particularly through the use of monoline insurers. This was because PPPs were primarily seen from the perspective of harnessing private finance, rather than from the perspective of getting the incentives right.

The Reliance Rail experience shows that financing should follow rather than lead when structuring a PPP. Establishing the right incentives and the right risk allocation should be of primary importance. In practice, this means that PPP contractual structures should require just enough equity commitment and debt risk to ensure that the private sector operator is fully incentivized, and a debt structure that spreads the cost over the life of the asset in line with utilization.

With this mindset it is clear that PPP financing does not have to be all private. Indeed, the Treasury's solution substituted public finance for private finance without any change to the private sector's incentives or the risk allocation of the Reliance Rail PPP. Overall, if cleverly structured, public intervention does not have to result in any loss in the benefits of the PPP structure.

Of course the experience of the New South Wales Treasury was not unique, and other governments have come to similar conclusions about public sector contributions to PPP finance. For example, the UK government has announced its intention to act as a minority equity holder in future PPPs, and to encourage the use of a wider range of long-term debt financing sources for PPPs, including public and private bonds.

The government of the Australian state of Victoria is considering taking similar steps to improve PPP financing. These include allowing government capital contributions where there are liquidity constraints or where there are opportunities to reduce project costs, and giving the government a preemptive right to purchase debt if sold in the secondary markets, together with a right to replace a financier in defined circumstances.

The author was NSW Treasury Deputy Secretary (Head: Office of Infrastructure Management) when the transaction was first negotiated and financial close reached, and Treasury Secretary when it became obvious that there was a looming risk around the refinancing due in 2018. While Treasury pre-emptively developed various options at this time, the final solution was only developed after the author had left the Treasury in March 2011.

PROTECTING YOUR PPP

Stabilizing partnerships in uncertain times

Waleed Youssef, Saudi Oger Limited

UNCERTAINTY

is inherent in developing and operating complex infrastructure and services projects, and it is for this very reason that government officials seek public-private partnership (PPP) partners to mitigate the most complex of risks. Yet legal and regulatory frameworks, in place for legitimate reasons (especially in emerging markets), often dampen the private sector's ability to address in an optimal manner the challenges that can and often do arise during the term of a concession.

It is important to distinguish between projects that exceed expectations—and therefore generate greater than expected financial returns to both parties, yet require additional, unan-

ticipated capital investments—and struggling projects where there is an urge by the developer to reduce ongoing investment and maintenance.

"SUCCESSFUL PPPs ARE ALL ALIKE…"

To paraphrase Tolstoy, successful PPPs are all alike, but every unsuccessful PPP is unsuccessful in its own way. Successful projects are easier to manage owing to positive cash flows, and could additionally incorporate an obligation by the developer to increase its investment according to certain capacity-related triggers on the basis of floor and ceiling for project returns. This could also be supplemented by sponsor commitments to co-investment or to extend the concession terms based on minimum returns, as well as a sponsor sinking fund to ensure independence from the uncertain and tedious public budgeting process. Very often concession agreements focus on what to do when things go wrong, but not how to continue to meet demand when things go well, especially toward the end of the concession term.

A good example is the case of TAV Airports, which realized much higher than expected passenger traffic and recently committed to invest $75 million to expand the international terminal and car park at Istanbul Ataturk Airport six years before the end of its concession term—even though the replacement airport for Istanbul is scheduled to open before the end of its concession period. The Government of Turkey also co-invested in taxiways and aircraft stands. In this case, it was more economically and financially advantageous to sustain traffic growth at Istanbul and its role as an international hub.

> "To paraphrase Tolstoy, successful PPPs are all alike, but every unsuccessful PPP is unsuccessful in its own way."

Struggling projects are of course more complicated to deal with. Failures are often complex in nature and, basically, attributable to the inability of both the grantor and sponsor to adequately evaluate project risks, especially when those risks are related to the enabling environment or public practices. In this case, and in order to avoid service disruptions and political criticism, grantors and lenders are more inclined to work with sponsors to provide some

relief despite the standard provisions for step-in rights and termination.

WHEN THE PPP PROMISE FADES

In the case of struggling projects where the performance of the developer is satisfactory despite adverse effects that are beyond the control of both parties, sponsors may consider providing relief in the form of temporarily reducing or suspending the concession fee while continuing to sustain the balance of risk. The sponsor may subsequently recover its suspended revenues in the form of higher concession fees or with interest when conditions improve.

While this approach imposes a steep fiscal burden on the government, especially when external adverse impacts also affect it (such as a currency crisis), it cannot be avoided for critical projects that require business continuity and where the sponsor's operational performance is satisfactory. It is important to incorporate at the outset such safeguards in the concession agreement to ensure that relief is delivered without delay while preserving transparency and avoiding corrupt practices.

In the case of struggling projects operated by poorly performing developers, working with lenders to replace the operator (even by a management contract) may prove to be the better course of action.

> "Very often concession agreements focus on what to do when things go wrong, but not how to continue to meet demand when things go well, especially toward the end of the concession term."

In all cases, strict safeguards should be incorporated into the concession agreement to ensure that the developer—especially toward the end of the concession term—continues to provide adequate preventative maintenance to PPP assets soon to be transferred to the sponsor. More attention should be given to the totality of the developer's obligations toward the end of the concession term. With the safeguards that this level of attention brings, PPPs face less uncertainty, greater robustness, and increased chances of success.

All POLITICS is LOCAL

BARCELONA'S INNOVATIVE URBAN PPP CREDITS SUCCESS TO ITS WORKING RELATIONSHIPS WITH POLITICIANS

in Barcelona aimed to reinvigorate the city, strategically building a vibrant urban center to attract businesses as well as creative institutions. The ambitious goal—to guarantee a sound economy, pleasant surroundings, and a sustainable environment for decades to come, satisfying visitors as well as residents—had never been undertaken at this scale. Public and private cooperation made it possible, proving that even for the most innovative PPPs, old-fashioned political relationships are as important as ever.

In this interview, **Barcelona Global CEO Mateu Hernandez** teases out the nuances of working with politicians on a PPP and advises *Handshake* readers how a push for transparency can lead to innovation.

Urban PPPs like Barcelona Global may have closer interaction with local politicians than other PPPs. How do you balance the relationship with elected officials alongside the needs of the other stakeholders?

There is always a need for a strong sense of independence from politicians when the private sector goes into public-private strategic planning. Private sector leaders should be aware from the start that being independent from policies and politics is essential for the success of the process. Some of the issues the private sector might propose might not be "politically correct" for the governing party, and politicians then use their influence interrupt the process. The government and the opposition parties will all try to bend the process their way, either to legitimize their policies or to try to erode the governing party. That is why it is so important to create clear rules for interaction and seek broad political agreement before the PPP launches. It is also important to foster meetings between the private leaders of the process and the opposition to the government.

How would you advise others on how to meet the needs of politicians while achieving the best results for a PPP?

In a public-private partnership, politicians are typically seeking a kind of legitimacy—he or she wants to be perceived as an open and collaborative political leader. This desire for openness can have a positive outcome when the public officials provide total autonomy to the group formed by the private sector. When this happens, we see innovation. It often enables a new and interesting strategic planning process in which the private sector plays a key role defining key objectives and concrete programs. This process can also paves the way for key private commitments when implementing the strategic plan.

> [Politicians'] desire for openness can have a positive outcome when the public officials provide total autonomy to the group formed by the private sector. When this happens, we see innovation.

Where have you seen relationships with politicians go wrong in a PPP?

I've seen three broad categories of mistakes when dealing with elected officials:

When the call for collaboration on strategic planning is mainly a political movement or an image campaign for the politicians, the collaboration is not genuine, and the private sector should avoid it. The best way to know when a call for collaboration on defining a strategic plan for a wider objective or a sector is legitimate is to ask for some rules to follow, including: no public interference; full ability to nominate who is going to assist and participate in the process; whether or not technical assistance is required; the go-ahead to hire for this function independently; and the ability to maintain top-level coordination. If these needs are met, the coordination should be kept active through regular formal and informal meetings, which build a deeper personal relationship.

If the process of public private strategic planning is built as it should, avoiding the first mistake, a second kind of mistake happens when the private sector tries to mimic the role of the public sector, or of politicians. Political skills are unique to politicians. Private sector leaders involved in a strategic consultation should use the skills that made them successful: remaining focused on concrete goals and actions, business-oriented, and factual.

Another mistake to avoid is regarding implementation. Some strategic processes led by private stakeholders might fail when going into implementation. Many strategic processes have failed when not committing themselves fully to the implementation process. Private sector players have to be committed when asked to design strategies and especially when suggesting actions to develop.

How have the public and private partners of Barcelona Global divided their roles to play to their strengths while remaining committed to the PPP?

Barcelona Global is the child of the marriage between public and private partners who deeply believed in the value of strategic planning for Barcelona. Once the planning stage concluded, private leaders understood that they needed to create an independent body to monitor the implementation of the plan and make some of the strategic issues happen. The private sector decided to fund and participate a more action-based agenda, which they thought of it as a platform of commitment with the city and its future. This platform enables private individuals to work to make Barcelona one of the best cities in the world, which translates into attracting talent and developing economic activity. They commit time, contacts, and institutional resources.

How did your past experience managing PPPs inform this strategy?

My past experience on public private strategy—including perspective born of lessons learned the hard way—showed me that there is a need for private sector institutions to be responsible for certain projects. If the private sector involvement devolves to individuals or individual organizations, there are many chances that the process won't move forward. The involvement of private institutions—fully privately funded and staffed by professionals—is a precondition for success when the private sector is asked to contribute to strategic planning in the public sphere.

INSIDE INFRASTRUCTURE

POWERING RURAL AFRICA

John Kjorstad

John Kjorstad is Global Services Infrastructure Hub Leader at KPMG, where he supports the partners of KPMG's Global Infrastructure Leadership Team. He is the former editor of Infrastructure Journal.

In development, the term "end of the line" conjures images of remote places with spotty access to basic services. But hundreds of millions of people around the world—people who live beyond the "end of the line"—wish they could be so lucky.

According to the United Nations, 1.2 billion people live without electricity, 783 million people do not have access to clean water, and almost 2.5 billion do not have adequate sanitation. For marginalized populations beyond that last mile of essential public services, life without basic infrastructure is more than a constraint on their standard of living; it's a social and economic yoke that impedes progress and creates a cycle of poverty and outward migration. In 2004, former KPMG infrastructure professional Daniel Rea recognized this problem in a rural corner of northwestern Zambia.

At the Kalene Mission Hospital in Ikelenge, a visionary surgeon named Dr. Gill saw that the hospital's standard of care was badly constrained by its lack of access to reliable power. Ikelenge is situated 240 miles from the national grid operated by the Zambia Electricity Supply Corporation (ZESCO). Knowing there was little hope of quickly extending the grid, Rea and his partners focused their efforts on the nearby Zambezi River, which runs 1,600 miles from Zambian wetlands to the Indian Ocean. The river's course begins not far from Ikelenge near the borders of Angola, the Democratic Republic of the Congo, and Zambia. With this renewable resource, Rea saw an opportunity to provide clean and reliable local generation; enough to independently power not only the hospital, but the whole community and its surrounding area as well.

FROM IDEA TO INNOVATION

Dr. Gill, the surgeon, formed a team with Rea and his uncle (both engineers), to

develop a run-of-river hydroelectric scheme although they had no specific hydropower expertise and no capital. Three years later, in 2007, after heavily leveraging personal networks and raising more than $2 million from charitable organizations and private individuals, the 750 kilowatt run-of-river Zengamina hydro project became operational 35 miles from the Zambezi River's source. Incredibly, the project was constructed by local villagers under the guidance of remote international experts at a high global standard and a fraction of what it would have cost using international contractors.

The project successfully powers the Kalene Mission Hospital and has also removed the wider community's dependence on expensive diesel fuel generators. The impact of Zengamina's power extends to local schools, where grades and attendance are improving. It has enabled local businesses to grow and prosper, creating a more dynamic economy and raising the standard of living in the area. It has also successfully transferred professional skills from international experts to locals who now operate and maintain the generating facility and related transmission infrastructure. Today, Zengamina's independent grid covers 19 miles and serves roughly 400 residential customers and 20 non-residential users.

However, success does not come without new challenges. Rural electrification requires a subsidy for its development and early years of operation. For example, the United States prioritized rural electrification nearly a century ago, with Congress legislating financial support to local cooperatives in 1935; government provided access to cheap federal loans to support expansion of the country's power generation and transmission infrastructure. Over time, access to cheap power allowed rural economies to develop and thrive, making the long-term finances of American power cooperatives more sustainable.

> "Energy really is the foundation for everything in an economy, and rural electrification is a long-term challenge on the African continent. In rural Zambia, only about 3 percent of rural people have access to a steady source of power."

BUT CAN IT BE REPLICATED?

Rea believes such transformation is possible in Ikelenge, but the wide-scale productive use of Zengamina's power has thus far been slow to materialize. People want to be connected, but the economics are challenging even when subsidized. The project has a popular social fixed-tariff for villagers of only $8 a month, and a less popular commercial tariff, so overall it operates at a loss. Only 40 percent of the generating capacity is being

used at peak periods, and only 10 percent over 24 hours.

Rea regrets not working with a partner, such as a non-governmental organization, during the project's initial development, which would have established more productive uses and users of power in parallel. As a result, he has become his own customer and set up a pineapple processing factory and a stone crushing and concrete block business to buy some of the excess capacity.

> "The 750 kilowatt run-of-river Zengamina hydro project was constructed by local villagers under the guidance of remote international experts at a high global standard and a fraction of what it would have cost using international contractors."

Rea's long-term ambition is to make the Zengamina project profitable and see it expand. The scheme can be scaled up to 2.4MW with a cascading system, and other infrastructure improvements in the area could help drive demand. Additionally, ZESCO has plans to expand Zambia's national grid to within 60 miles of Zengamina's reach. If that happens and the final gap miles are covered as well, the project could potentially sell its excess power into the national grid—vastly improving the economics.

Energy really is the foundation for everything in an economy, and rural electrification is a long-term challenge on the African continent. Rea says only about 3 percent of rural Zambians have access to a steady source of power. He is often asked: "How can Zengamina's successful development be replicated in other places?"

The short answer is that it cannot. Every infrastructure project is a unique product of local circumstances and highly dependent on its surroundings (physical and political), as well as the capacity and drive of local individuals seeking to create change. Zengamina cannot simply be cast and replicated. However, Rea's story of innovation can be repeated anywhere, and it should inspire others to look more closely at their own circumstances and determine what options are available to them.

Even without money or specific technical expertise, Rea has proven that success is achievable. The journey is not yet complete, but he and his partners have every right to be proud of what they've accomplished so far. This community developed project has triggered the remote local area to be classified as a Government District. Rea has reported most recently that contracts have been awarded for a large new secondary boarding school, new district hospital, new council administration block, court, police station, and post office. In addition, many houses and a water system is planned. The tide has turned.

For more information, please contact Daniel Rea (dan.t.rea@gmail.com).

The Zenzaminga hydro project aims to replace the current use of generators burning diesel to produce electricity. Benefits include:

IMMEDIATE BENEFITS

- Removal of diesel-generated power with its attendant high costs, unreliability, and associated air and noise pollution.
- 24-hour power to five hospitals/schools/services that currently use diesel generators.
- Power delivery to over 1000 rural towns and schools that have never had electricity.
- Employment for local Zambians.
- Increase in attractiveness of local professional jobs, especially in hospitals and schools.
- Improved living and working conditions for hospital staff and teachers.
- Introduction of better medical and support equipment because of continuous electricity supply, improving health care for patients.
- Power for computers and related equipment to enable updating of the hospital's infrastructure, along with that of six schools.

LONG-TERM BENEFITS

- Development of SMEs and increased employment in a region where unemployment is approximately 80 percent. Specifically, this project will supply cheap, sustainable power, enabling a viable pineapple canning enterprise to be reintroduced.
- Decreased economic dependence on expatriate income.
- Kalene Mission Hospital development.
- Power availability for drinking water and sanitation systems, leading to improved health and educational opportunities for the local population.

ONE QUESTION

8 EXPERTS

Some PPPs fail. That's a fact. But when the lessons these failures impart are integrated into future projects, missteps have the potential to innovate—energizing the learning cycle and setting the stage for long-term success. To gain a better understanding of how innovation in PPPs builds on genuine learning, *Handshake* reached out to PPP infrastructure experts around the world, posing the same question to each. Their honest answers redefine what works—and provide new insights into the PPP process.

> *"How can mistakes be absorbed into the learning process, and when can failure function as a step toward a PPP's long-term success?"*

ISABEL RIAL

International Monetary Fund

Isabel Rial is a senior economist of the Expenditure Policy Division in the Fiscal Affairs Department of the International Monetary Fund. She works on a range of cross country fiscal policy issues, focusing on public-private partnerships, fiscal risks management, and fiscal rules.

For centuries, PPPs have been used by governments as an alternative to traditional public procurement for the provision of public infrastructure, although results have been mixed. If properly managed, PPPs can deliver substantial benefits in terms of mobilizing private financial resources and know-how, promoting efficient use of public funds, and improving service quality. Yet in practice, PPPs have not always performed better than traditional public provision of infrastructure. The reasons for this vary across countries.

In many countries, infrastructure projects have been procured as PPPs not for efficiency reasons, but to circumvent budget constraints and postpone recording the fiscal costs of providing infrastructure services. Due to inadequate budgeting and accounting of PPPs, they can seem much more affordable, encouraging governments under short-term pressure to reduce their deficit or debt to use PPPs—even if, in the long run, they could cost more than public procurement. This has led some governments to go forward with low-quality and fiscally costly projects that would

otherwise have been excluded from their public investment plans.

In some cases, PPPs have also resulted in large fiscal costs due to bad contract design and the realization of contracted risks, such as those associated with revenue guarantees. Therefore, if not properly managed, fiscal risks from PPPs can potentially have significant macroeconomic implications. They can potentially undermine efforts toward fiscal discipline by moving spending off-budget, creating firm and contingent liabilities for government.

International experience shows that there are many factors underpinning the so-called "failure to deliver" in PPP projects. This can include a weak monitoring and controlling capacity of PPPs across the public sector, but particularly in Ministries of Finance (or budgetary authorities). Second, a lack of integration of PPP projects into the budget process, medium-term fiscal frameworks, and debt sustainability analysis (given that PPPs are typically off-budget) is to blame. And third, a lack of transparency in fiscal reporting practices and quantification of fiscal risks can be at fault.

Yet governments can manage fiscal risks arising from PPPs to ensure that the potential benefits from PPPs are realized without weakening public finances or jeopardizing macroeconomic stability. Here are some ways to do that:

- Governments can pursue only "good projects" by having sound project planning, evaluation, and selection. There should be a clear investment strategy to select public investment projects on the basis of national priorities and cost-benefit analysis. Once a project is selected, the next step should be to determine whether procuring it as a PPP provides greater efficiency than public procurement.
- Governments can develop strong fiscal institutions to manage PPPs. It is essential that the Ministry of Finance manages a "gateway process" for PPPs that gives it sufficient control at each stage of the process. At any point in the process, the Ministry of Finance should be able to stop projects that are fiscally unaffordable. A dedicated PPP unit, with specialized and capable staff, can be helpful in managing this process. The Ministry of Finance can also consider establishing ceilings on both the stocks and flows of PPPs to help control fiscal risks.
- Governments can ensure a sound legal framework to manage public investment in general and PPPs in particular. This should involve a clear, fair, and predictable legal environment for the private sector. The legal framework should also clarify the roles and responsibilities of all relevant counterparts in PPP transactions.
- Governments can also implement good budgeting, fiscal accounting, and reporting for PPPs aimed at achieving full and transparent disclosure of all future budgetary costs and fiscal risks from PPPs. The impact of PPPs on future government spending should be incorporated in the debt sustainability analysis and medium-term budgetary frameworks. The use of commitment appropriations in the budgetary process, which authorize governments to commit public resources for future years, can also be helpful in drawing attention to the future costs of PPPs.

PPPs can be effective in delivering public infrastructure under certain conditions, but they also entail fiscal risks. These are manageable when officials pay close attention to models that have worked for other countries and tailor their approach accordingly.

FERNANDO CRESPO DIU

UTAP

Fernando Crespo Diu has been the Director of UTAP, the Portuguese PPP unit, since its creation in 2012. UTAP leads the appraisal, structuring and tendering of PPP projects, oversees and provides technical support to line ministries in contract management activities, supervises and reports on behalf of the Ministry of Finance the financial and fiscal performance of PPP contracts, and ensures the development of public sector know-how.

» Although not a desirable outcome, failure is always the first step of the learning process toward more successful projects, in terms of implementation, value for money, and financial and fiscal sustainability. There is an enabling prerequisite for the learning process, particularly given the complexity and long duration of PPP arrangements: the establishment of institutional arrangements that provide stable, professional, and fully dedicated teams of experts within the structures of the public sector.

A central PPP unit—ideally located in the Ministry of Finance—should participate in all stages of a project lifecycle, from structuring to contract management, allowing continuous feedback and dialogue between contract management and public teams. In such an environment, the role of external advisors has to be carefully planned, as they provide key skills along the project lifecycle, but must not substitute those tasks where knowledge must be developed, stored, and used by the public sector.

In microeconomic terms, there are several key stages where public sector teams can extract valuable lessons from every project developed. During project planning, infrastructure needs across sectors must be duly appraised, ranked, and analyzed within the framework given by the long run fiscal policy objectives. During project definition and structuring, a clear and detailed risk matrix must support the analysis of risks transferred to the private partners and risks retained by the public sector, and must include as well a set of mitigation strategies for the latter. During contract management, an adequate enforcement of the contractual dispositions must be performed in a stable business environment.

Taken together, this virtually eliminates the probability of unilateral decisions by the public sector—thus maximizing predictability and minimizing the probability of contingent liabilities and the unexpected costs that damage a PPP's value for money.

DAVID BLOOMGARDEN

Inter-American Development Bank

David Bloomgarden is Chief of the Basic Services and Green Growth unit of the Multilateral Investment Fund of the Inter-American Development Bank. He manages an annual $25 million technical assistance fund for early stage PPP support, climate change and adaptation/resilience programs, and private sector provision of basic services for the poor in underserved areas of Latin America and the Caribbean.

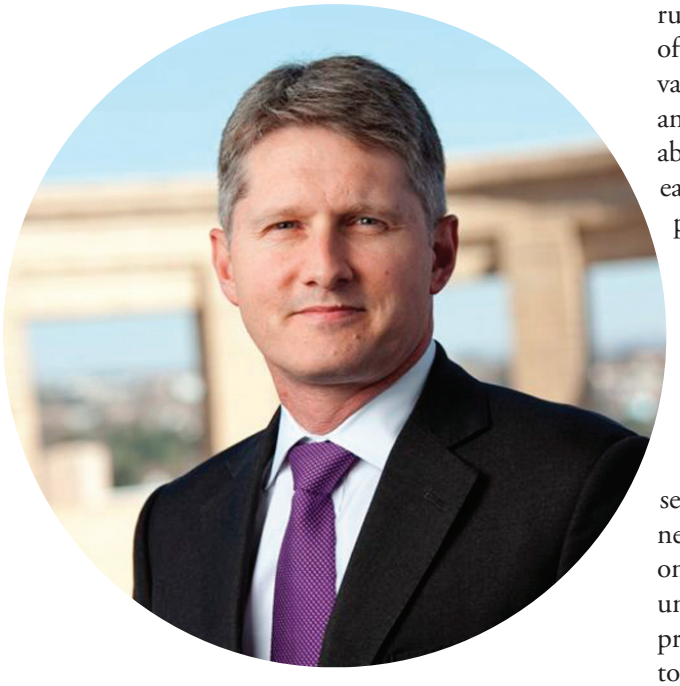
U.S. General George S. Patton famously said, "Take calculated risks. That is quite different from being rash." This quote summarizes how countries should absorb risks into the learning process of a PPP program. Governments know that complex projects never go exactly as planned. PPPs are among the most complex of all infrastructure projects, because they involve multiple stakeholders in the public and private sectors and tend to be used to procure large infrastructure. Starting a new PPP program requires that governments learn to master the regulatory, institutional, and technical challenges involved in planning, designing, and implementing a PPP. Few governments—and especially those of developing economies—can afford failure in the delivery of critical infrastructure and services given the scarce resources and enormous human needs.

To successfully launch PPP infrastructure projects, governments must develop a complete picture of the risks that flow from the scope and requirements of a project. This process begins with identifying risk for all phases of the project, from the earliest preparation stage to management of the PPP contract. This identification should list the nature of the risk, its probability of occurring, its expected impact on the project, and measures proposed to mitigate it.

Once a government has a good picture of the risk, it must allocate it. Risk cannot be made to disappear; the principle is to allocate it to the party best able to control its occurrence or manage its consequences and assess the likelihood of its occurrence. The risk of a PPP can be allocated to either the government or the PPP contractor or shared between them. The PPP contract allocates this risk and includes risk mitigation measures as needed. Governments can also manage risk by using experienced advisors.

This exercise of risk allocation is the most important step a government can take to avoid failure in the delivery of critical infrastructure. This does not mean a government can avoid mistakes or that there is

a way to avoid a learning curve; it means that a government is taking a calculated risk. By carefully identifying and allocating risk, governments will climb the PPP learning curve faster. The result will be a PPP program that delivers value for money in terms of the efficient use of resources, transparency, and intended social and economic results.



RICHARD ABADIE

PricewaterhouseCoopers

Richard Abadie leads PwC's global infrastructure group, which provides services across the capital projects lifecycle. His area of expertise is infrastructure policy and financing.

Having worked in the infrastructure sector for nearly 20 years, I've had time to reflect on what success and failure look like in infrastructure PPPs. Mistakes have been, do, and will continue to be made when using PPPs. It is not perfect—nor is its application—but what in life is?

There are so many horror stories around non-PPP construction cost overruns, delays in completion, poorly specified contracts, weak tender management, corruption, failure to run transparent competitive processes, lack of project readiness, significant post-contract variations, and sporadic asset maintenance and management. PPPs eliminate many of the above structural weaknesses, which rightfully earns it its place as a challenging but effective procurement approach.

The chief criticisms of PPP—that it takes longer to procure and is less flexible than conventional procurement—have some validity. Getting price certainty does take time and requires clear contractual risk allocation through the life of the contract.

I've also seen PPP blamed for delivering services and facilities that are over-specified/not needed/unaffordable. Rarely is this the fault of one party—private or public—alone. It simply underlines the critical importance of how the private sector and public sector agencies work together to make sure the PPP is sustainable in terms of its financials and the needs it is addressing.

I've seen some questionable risk allocation to the private sector through badly structured PPPs, including:

- Major planning and approvals;
- Land expropriation and resettlement of people;
- Technology at risk of rapid obsolescence;
- Speculative demand; and
- Regulatory change.

These risks should be retained by the public sector and managed accordingly.

At the end of the day, a PPP is only one of several tools to deliver infrastructure-backed services, and "A tool is only as good as the person using it," as the saying goes. Used properly, PPPs can deliver great outcomes. Continuous learning about PPP application through codification, training, knowledge and practical experience sharing, and best practice application are critical components of successful PPPs. Industry focus should be on improving the user rather than improving the tool.

GAJENDRA HALDEA

Government of Rajasthan

Gajendra Haldea is Advisor (PPP & Infrastructure) to the Government of Rajasthan and CEO, Bureau for Partnerships in Rajasthan. He is the former Advisor to Deputy Chairman and Principal Advisor (Infrastructure) at the Planning Commission of the Government of India, as well as the author of several model PPP contracts, and the author of India's Electricity Act 2003. His most recent book is Infrastructure at Crossroads: The Challenges of Governance *(Oxford University Press).*

» It is a truism that infrastructure projects, like much else in life, do not unfold exactly as planned. However, there is little room for failure because it would affect a large number of users for which the government would be accountable.

India happens to be the largest laboratory of PPP projects and offers a plethora of evidence. While most projects have succeeded, some have faced failure mainly because they were encumbered by lack of conceptual clarity in policy formulation as well as contractual framework.

Many assert that all future events cannot be predicted and a PPP contract must, therefore, be regarded as incomplete. They need to be reminded that if man could succeed in sending a satellite to space and operate it for several years without any ability to modify it, why can't this be done while launching an infrastructure project? The key lies in rigorous preparatory action. Regrettably, the structuring of infrastructure projects is often left to commercial consultants who perform with insufficient incentives, besides lack of accountability, which in turn is compounded by inadequate capacity within the government.

While it may not be possible to predict future events, it is certainly possible to identify the various categories of events and state the principles that would be followed in dealing with them. Moreover, a clear focus on outcomes, as distinct from input specifications, would allow the private entity to innovate for improving efficiencies. This implies a fairly

evolved contract based on prudence and diligence, as governance by trial and error is an unacceptable proposition.

It is important to recognize that whenever a failure leads to renegotiation of a PPP contract, the users usually end up bearing the burden—either as rate payers or as taxpayers. Granting favors to private entities beyond the terms of their contract must, therefore, be avoided as far as possible.

The short answer is that it is possible to formulate PPP contracts that neither fail nor need to be renegotiated. The challenge lies in putting together the capacity and effort necessary for achieving this objective.

WILLIAM DACHS

Gautrain Management Agency

William Dachs is the Chief Operating Officer of the Gautrain Management Agency, charged with oversight of a $3 billion urban rail PPP. He is the former Head of the Public-Private Partnership Unit at the South African National Treasury.

» The ability of a national PPP program to apply lessons learned from one project to the next is dependent on factors such as the documentation of case studies and the use of a central repository of information in a PPP unit at the national level where such lessons can be distilled and applied to the next project in that jurisdiction. There are plenty of good examples of such programs that learn from and apply lessons. But how are individual PPP projects able to absorb mistakes and still meet the original objectives of value for money for the users of the services and the taxpayers who may ultimately bear the risk of the project failing?

It is impossible to predict the range of possible risks and to allocate these with precision over 20 to 25 years in a complex and changing environment. As such, the key to achieving long-term value from a PPP does not only lie in the quality of the feasibility and procurement phases, but also in how the balance of risk and rewards is established and applied in the PPP contract so as to be able to survive significant changes over a long period of time.

The lessons that have been learned over the last 15 years are that the flexibility to amend contracts is very important but so is the need to maintain public sector oversight over that change process. This is necessary so that the public benefit, or value for money, is maintained and that the risk allocation between the parties remains consistent with that approved as part of the original PPP contract. It's also important for governments to permit PPP contracts to enter into liquidation without stepping into the contract and rescuing the shareholders.

The "let the market work" approach applies market risk in a strong but fair manner. The alternative is to renegotiate and rescue the shareholders—and in so doing, creating a strong moral hazard that will ultimately prevent any lessons from being learned and applied.

ROBERT PUENTES

Brookings Institution

Robert Puentes is a senior fellow with the Brookings Institution's Metropolitan Policy Program, where he also directs the program's Metropolitan Infrastructure Initiative. The Initiative was established to address the pressing transportation and infrastructure challenges facing cities and suburbs in the United States and abroad.

In the U.S., one of the best learning tools for places wishing to engage in PPPs for infrastructure has been past mistakes. From the parking meter deal in Chicago, to Virginia's Pocahontas Parkway, and a handful of others, American cities and states pay close attention to one another and are loathe to repeat previous problems.

But going forward, institutionalizing such learnings requires a dedicated team. Indeed, assembling a group with the right mix of finance, legal, policy, and communications experience is critical to the success of any PPP project. Public sector agencies looking to procure a limited number of PPP projects or engaging in their first, often use outside advisors for most of these services. This can be a successful strategy as long as public sector decision makers remain in control of the process.

However, to truly embed learning, a dedicated PPP unit is necessary to increase the public sector's in-house capacity and expertise. These teams can live inside a department, such as a transportation office, or may be generalists under a mayor or governor's office. Examples of these types of PPP units can be found at both the state level, notably in Virginia, and at the city level in places like Los Angeles and Chicago. The Obama administration is also creating the Build America Transportation Investment Center, a coordination unit at the U.S. Department of Transportation that will help localities with innovative finance tools like PPPs.

While the exact mission of each of these offices varies, PPP units have five distinct roles

in the procurement process: policy formulation and coordination, quality control, technical assistance, standardization, and promotion. By bringing this expertise in-house, states and localities are able to develop both the formal and informal processes that underpin smooth transactions. Finance expertise in these units is especially important, as it decreases transaction costs over time by cutting down on the need to hire outside consultants and builds greater market certainty for leading private sector partners.

THOMAS MAIER

European Bank for Reconstruction and Development

Thomas Maier is the Managing Director for Infrastructure at the European Bank for Reconstruction and Development, overseeing EBRD's operations in the Municipal and Environmental Infrastructure and Transport sectors. He joined the EBRD as Senior Project Manager in August 1993 and later worked as Senior Banker in the Romania, Moldova, Croatia and Ukraine country team. In 1999 he moved to the Municipal and Environmental Infrastructure team as Deputy Director and became Team Director in October 2001.

» For countries new to PPPs, there is no doubt a steep learning curve. Fortunately, there is also a growing body of experience that such countries can learn from—the key is to understand the essence of the lessons and then incorporate these changes into the design of government support for PPPs. Ultimately there is of course no substitute for good project preparation, local capacity, and the development of solid legal frameworks and local capital markets—we all know these are the building blocks for the long-term success of any country's PPP program.

Focusing on lessons learned from EBRD's region, two current examples from Kazakhstan and Turkey come to mind.

Kazakhstan is an oil-rich country with an investment grade sovereign rating. While user charges are generally low, it is possible to structure good quality PPP projects based on the government's fiscal stance. A decade-long effort has been required to get to this point. The concession law, adopted first in July 2006 and amended in 2008, was based on best practice in the West, but apart from localized small-scale PPPs, large-scale projects have not yet been developed. In our view, the key shortcomings have included a cumbersome procurement process; the lack of an availability payment scheme; the impossibility of using international arbitration; the unwillingness to ensure creditors' step-in rights in case of default of the concessionaire; and treatment of the foreign exchange risks.

Following a few failed tenders, EBRD and IFC were engaged in 2013 to assist the government to make the necessary changes in the legislation. As a result, the law was further amended in July 2013 to allow basic yet fundamental improvements: the introduction of a two stage tendering and of the availability payment scheme as a measure of state support. In July 2014, further amendments were made to provide for step-in rights of creditors in case of default of the concessionaire, enable international arbitration, define/enable termination payments upon cancellation of a concession agreement in certain cases, and enable foreign

exchange fluctuation adjustments to the state support measures provided in local currency.

Following these last amendments, EBRD and IFC have assisted the government to develop the Almaty ring road PPP based on an availability payment basis. The project, now under tender, has attracted a good level of bidder participation. Given the high profile of the Central Asian region and beyond, this project should also have a great demonstration effect.

The case of Turkey's large hospital PPP program presents another interesting set of lessons learned. While the first of what is expected to be over 30 new facilities management-based PPPs for hospitals closed in October 2014 in Adana, the build-up took over five years. This was due primarily to the need for the government to mitigate certain critical risks for the private sector before they were able to reach financial close. In 2014 the Turkish Government agreed to a set of measures and supports. First, a debt assumption by the Turkish Treasury directly covering up to 85 percent of the loan in case of default, with a cap which varies each year. Another crucial step was to provide coverage of forex risk using an indexation mechanism. In this case, the Ministry of Health agreed to a formula in the payment mechanism of the hospitals PPPs that is triggered when the Turkish lira devaluates at a higher rate than inflation. Finally, the Ministry provided a cap on performance deductions within the PPP contracts that effectively creates a revenue guarantee to the project company. This, together with the ability to pass down performance risk to services subcontractors, means a secure cash flow to service the debt.

In my view, these examples show that there are practical measures that can be taken by governments to get projects over the line, and that sponsors and their lenders are willing to step up to the plate to deliver projects when governments are willing to meet them halfway. We look forward to many more well-structured PPPs—in fact, we will be playing an active part in a global effort to accelerate infrastructure investment, using EBRD's new Infrastructure Project Preparation Facility, which launches this month. We look forward to seeing the pipeline grow.

MASTER CLASS

PREVENTING RENEGOTIATION, FOSTERING EFFICIENCY

Rui Monteiro

Rui Monteiro is Senior PPP Specialist at the World Bank, where he works on the development of knowledge on PPPs, on knowledge dissemination inside the World Bank Group, and on capacity building in client governments.

Lawyers usually say that "the best contract is the one you never have to pull out of the drawer"—a view that focuses on trust, common understanding, and mutual advantages. And then they will add that PPP contracts, even with the best government–business relationship, are a bit more complex. That's because they are based on incentive mechanisms that require not only regular monitoring, but also some degree of cooperation and a modicum of strategic management—the three components of PPP contract management.

The ultimate success of a PPP contract depends on effective service delivery under conditions of sustained efficiency. The efficiency comes from linking private operator rewards to performance over the long-term (output focus), and from providing credible commitment by the private partner through private finance (or, as it's known in some circles, "hostage capital").

There are many cases, as seen in previous issues of *Handshake*, of PPPs providing high-quality reliable service to users at a reasonable cost for users and taxpayers. But there is also recognition that, over the long-term, PPP efficiency may be jeopardized by contract renegotiation—by necessity renegotiation under no competitive pressure, with asymmetrical information. This sort of renegotiation creates a risk of breaking the initial commitment, changing rewards and risk allocation. Though theoretical economists would say that "in the long-term" renegotiation of incomplete contracts is unavoidable, PPP practitioners should do their best in order to avoid the need for renegotiation, while simultaneously preparing for renegotiation when it is the best solution in terms of public interest.

This requires distinguishing from among the several different sources of renegotiation: poor contract management, poor contract design, poor project selection, or simply the opportunistic behavior of myopic public authorities.

WHY RENEGOTIATION HAPPENS

A recent OECD publication addresses several different contexts and characteristics

of PPP renegotiation. This reflects a round-table discussion connecting PPP practitioners and researchers, where the focus moved from the mere characterization and classification of renegotiation processes to the much needed recommendations on how to prevent unnecessary renegotiation.

Few renegotiations result from the dynamic inconsistency that game theory warns about—governments signing a contract allocating risks and rewards to the private partner, and later trying to grab part of the upside when projects are successful due to private sector efforts. But the fact that this kind of opportunistic behavior is rare demonstrates that PPP contracts have been successful in preventing that behavior.

There is a common realization that a large class of PPP renegotiations result from another type of opportunistic behavior, in this case shared by both parties. Here, for budgetary reasons, or due to rent-seeking, public authorities do contract PPPs for a part of what is needed, they then renegotiate the contract to enlarge its scope, in a non-competitive process that usually results in rents (extra profits) for the incumbent private operator enjoying superior information about the project and a long-term mandate for managing it. In this case, renegotiation does not result from exogenous change, and both parties are glad to renegotiate: the public authorities in order to introduce the additions that they choose to keep out of the contract when they originally closed the deal; and the private operator because they will discuss the cost of those additions under no competitive pressure. No improvement in the contracts, or in contract management, can avoid renegotiation in this case.

The obvious solution lies in improvements in the public investment management (PIM) process (better scrutiny), in the procurement framework (less acceptance of changes to project scope, and more transparency on renegotiation), and in the fiscal framework (due consideration to medium- and long-term infrastructure and service needs, and added fiscal transparency).

Another large class of renegotiation processes results from poor contract design. In this case, contracts are more "incomplete" than what actual uncertainty would suggest. The reasons range from too much pressure for fast results (having the deal closed, even if all risks were not dully considered), or from sweeping the difficult issues under the carpet, simply transferring them from the tender phase (under competitive pressure) to the construction or operational phases (when there is no competition, and when the private operator has a maximum of bargaining power). For these cases, the obvious solution is allowing more time for project preparation or for competitive negotiation during tender, and investing more on high-quality transaction advisors.

THE ECONOMIST'S VIEW

From an economist's perspective, PPP contracts are incomplete contracts, in the sense that they cannot stipulate the responsibilities of the parties in each "state of nature", i.e. for each possible future occurrence. In fact, they will be subject to change (technological, demographic, or commercial change, but also legal change and policy change), and so they require a process (by agreement, or by unilateral decision with or without compensation) for adapting the project to exogenous shocks and policy changes, keeping in mind the public interest and the contractually defined allocation of risks.

To learn more, see the PPP Reference Guide.

A component missing from many of these contracts where renegotiation is unavoidable, is a proper assessment of all the risks that the project may conceivably face. This assessment defines mitigation measures for some and prescribing courses of action for the others. Another component often missing in these cases is a good financial model that allows for risk impact to be evaluated. These are models that procuring authorities should build and use for structuring the project, and models that bidders should be required to build in order to demonstrate the ability of their proposals to satisfy the contract and face risks.

A minor but still relevant class of renegotiation processes results from poor contract management by the public partner, building an overload of disputes and miscommunication that allows the project to underperform and leads to renegotiation or contract cancelation. Many public authorities are strengthening efforts towards improving contract management practices.

Another still relevant class relates to poor private sector performance—in practice, cases where the private operator is able to convince the public authority that it pays to renegotiate the contract instead of canceling it. This class should be considered a sub-class of that which was previously referred to, as only poor contract management practices can allow for underperforming private operators to co-opt public authorities into a renegotiation process.

The last class of renegotiation processes, a very small one, deals with cases where there was a real significant change in the conditions for project implementation that precludes the normal execution of the contract, and so forces renegotiation because the options are contract collapse or underperformance. These cases, the ones that are truly unavoidable, will have a significant probability of happening during the life of a long-term contract, but a small probability of happening in each year of the contract.

Identifying and analyzing the myriad reasons behind renegotiation is the first step toward preventing renegotiations from taking place. Indeed, much can be done to reduce the prevalence of PPP renegotiation, which in turn will allow PPPs to demonstrate their potential efficiency. Improving the public-sector governance of PPP processes and the quality of project structuring has the potential to improve the quality of life for many people around the world.

> “PPP efficiency may be jeopardized by contract renegotiation—renegotiation under no competitive pressure, with asymmetrical information. This sort of renegotiation creates a risk of breaking the initial commitment, changing rewards and risk allocation.”

CONTRACT RENEGOTIATIONS VERSUS ADJUSTMENTS

RENEGOTIATIONS	
Change in risk assignment and/or in the conditions of the contract	• Reduction in the level of service quality provided. • Deferral or advancement of investments by several years. • Extension of the contract term. • Reduction of the guarantee requirements for the private side (financial bonds). • Increase in the level of guarantees provided by the public side (to pay lenders). • Delays to a reduction of tariffs (tolls). • Reduction of fees for the public side. • Changes in any of these conditions to avoid bankruptcy of the operator.
Change in project scope (if this was not covered in the contract)	• Public side requests for additional investments. • Private side proposals for additional investments. • Grant of additional land for development serviced by the infrastructure. • Requests from the public side for additional inter-connections with public (untolled, road) network.
ADJUSTMENTS	
Adjustments in line with the contract provisions	• Adjustments to tariffs in line with a formula set in the contract or indexed by inflation. • Activation of triggers, which make predefined investments become mandatory. • Payments to the operator provided for in the contract.

Source: Guasch et al 2014. Full report: Public Private Partnerships for Transport Infrastructure: Renegotiations, How to Approach Them and Economic Outcomes

READ THIS NEXT

Geoff Keele, IFC

As PPPs have gained visibility in the development community, more and more is being written about them by think tanks, civil society organizations, and donors. But it is also clear that there is a lot of misunderstanding about what constitutes a PPP versus other forms of private sector participation, and many people are not fully aware of the complexities of PPPs and how risks are shared between the public and private sectors. For those in search of a broader perspective on how PPPs contribute to global development, their complexities and their potential, this selection of recent articles will make for some very interesting reading.

As the global community shifts to meet the challenge of universal health care (UHC), the new imperatives facing emerging economies will require attention and investment. Climbing costs, the rapid escalation of chronic diseases, emergence of complex morbidities, relentless urbanization, and the expanding expectations of citizens are simultaneously confronting countries as they move towards UHC. Investing in hospitals will be key to this success, and PPPs have already played a significant role in the building, equipping, and maintaining of hospital infrastructure around the world. This report by the Center for Global Development pinpoints the role PPPs can play in creating a "Hospital Agenda."

Maureen Lewis. 2015. "Better Hospitals, Better Health Systems: The Urgency of a Hospital Agenda." CGD Policy Paper 053. Washington DC: Center for Global Development.

Since 2009, infrastructure financing to Africa has grown, thanks to the efforts of national African governments, official development financing, and private participation in infrastructure investments. However, this financing is still not enough to reach the estimated $93 billion gap in the continent's infrastructure needs. A recent paper by Brookings Institution suggests that there has not been enough data to give us a realistic picture of this growth. In this blog post, the authors highlight five major trends in infrastructure financing in Africa that emerged from their paper, "Financing African infrastructure: Can the world deliver?"

Jeffrey Gutman and Amadou Sy, April 8, 2015. "Top five trends in the changing landscape of African infrastructure financing." Brookings Institution "Africa in Focus" blog.

Those in the development field may have an understanding of the technical fixes for develop-

ment challenges alongside an understanding of the political context in which work is done, but it's not always possible to connect the two. When implementing a PPP, however, technical success depends on navigating the political environment. This Overseas Development Institute paper examines how development professionals and donors have come to recognize the importance of political economy in the success of development initiatives, but suggests that how professionals plan and implement projects has not kept pace.

Alina Rocha Menocal, 2013. "Getting real about politics: From thinking politically to working differently." Shaping Policy for Development series. London: Overseas Development Institute.

When governments embark on a PPP, some are required to undertake value for money analyses or conduct public sector comparators, designed to ensure that a PPP is the best model to achieve government goals. Recently the U.S. Federal Accounting Standards Advisory Board (FASAB) called for greater disclosure of risks in PPPs. The Wall Street Journal's Risk & Compliance Journal takes a look at the FASAB's exposure draft and discusses PPPs and the topic of risk and disclosures with FASAB staff, Macquarie Capital, and the National Council for Public-Private Partnerships.

Gregory J. Millman, February 17, 2015. "Risk Disclosure for Public-Private Partnerships Under Scrutiny." Wall Street Journal.

International development efforts are not immune to failure, and we need to embrace the idea that failure is feedback that indicates when assumptions, processes, or implementations are flawed. PPPs by nature are about the sharing of risks among diverse partners, so being able to properly reflect on missteps along the way, and apply the knowledge to future projects, is a critical skill that needs to be developed and encouraged.

Tricia Petruney, December 12, 2014. "Facing global development's fear of failure." Devex Impact.

Transparency is always an important issue whether we are talking public procurement or PPPs, and there has been a push recently for all government contracts to be made public. The argument is that transparency not only inhibits corruption and builds trust in governments, but can help improve the contracts themselves. For example, in Slovakia, the publication of contracts led to a 50 percent increase in the average number of bids on government tenders; in Buenos Aires, Argentina, it reduced variation and lowered average prices for hospital supplies. What does this mean for PPPs, where openness and commercial confidentiality must find a balance? Can the two be reconciled? In this editorial, the authors make their case.

Nancy Birdsall and Charles Kenny, December 26, 2014. "Publish all government contracts." AlJazeera America.

FACTA NON VERBA

For World Cup fans, the Mineirão stadium in Belo Horizonte may bring back memories of the Brazilian team's 7-1 loss to Germany during the 2014 semifinals. It was an outrageous defeat—and this stadium will long be remembered as the stage on which this national disaster took place. But there's another reason this stadium stands out, particularly among all other publicly-owned football stadiums in Brazil. According to Marcos Siqueira Moráes, former Managing Director of the Central PPP Unit of Minas Gerais (above), Mineirão is noteworthy because it was delivered on time and on budget—a "score" for Brazil. What's behind this win? The stadium was implemented as a PPP, so a private company designed, financed, and built it. It will continue to be operated under this structure for 27 years—enough time for the Brazilian soccer team to redeem itself on home turf.

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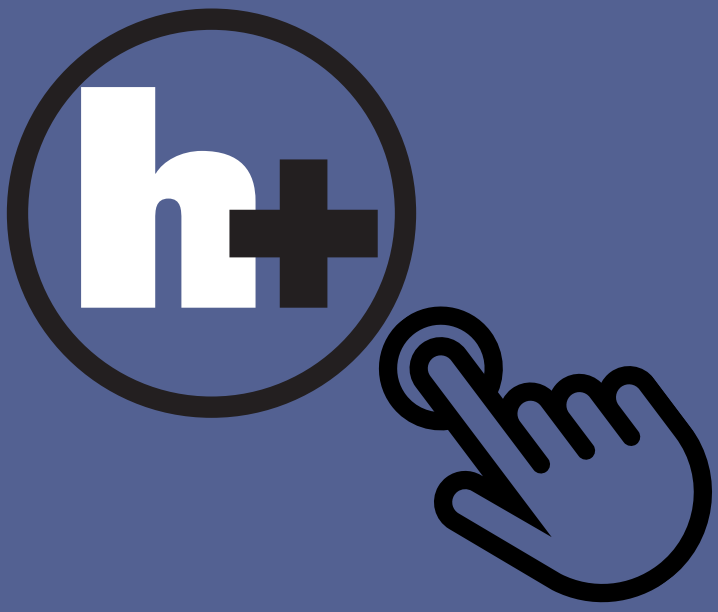

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