Delivering Smart City PPPs in pursuit of the public interest

Traditional city planning is characterized by isolated functional and sectoral silos, on the basis of static and outdated data and information, without interaction with city stakeholders...

It is a common frustration for city managers anywhere in the world, that 'traditional' planning, implementation and operations/maintenance of urban infrastructure and services are limited by:

- A lack of 'natural' integration across functional and sectoral silos of city policy, planning and ongoing management;
- Absence of high-quality data on historic and ongoing performance and circumstances of urban assets and services;
- Often, absence of sufficient information analytics capabilities to guide planning and decision-making; and
- Limited interaction and therefore lack of a high-quality feedback loop between urban infrastructure assets and services and citizens, businesses and other stakeholders who use them and benefit from them.

...resulting in service and investment planning that is not focused on what citizens, businesses and civil societies need.

The traditional way of service and investment planning within a city is thus based on static data and information, locked in individual silos. This prevents coordination and synergies between different silos within the city planning process resulting in a lack of focus on 'customers' (citizens, businesses and civil societies) and an absence of a customer feedback loop. Governments undertake developments inside a 'closed system', without externally led- and/or contributed-innovation. There is no integration or innovation across silos, and the static nature of these silos inhibits integrative 'deep' change that benefits the users of the city.

Smart city solutions offer ways to make better use of data and information in order to shift focus to 'customer' delivery.

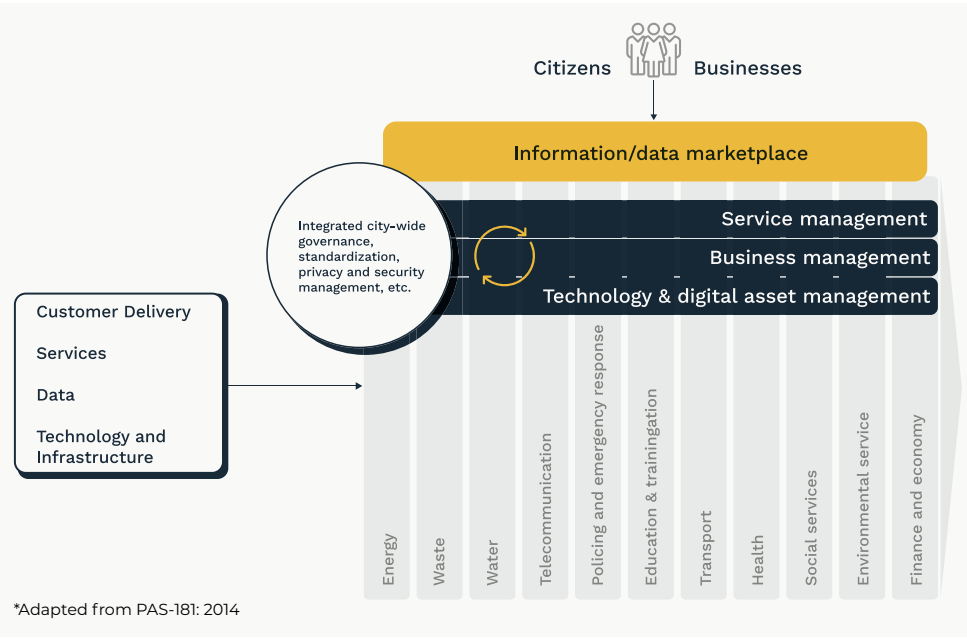
By introducing smart city solutions, a city can unlock data and information from individual silos, to better organize the structure and governance of data, services and 'customer' delivery, and to develop a veritable marketplace for data and information that enables innovative new service applications and solutions. All of which results in a substantial potential for step-change improvements in urban services and infrastructure planning, implementation and management.

Smart city solutions offer ways to make better use of data and information in order to shift focus to 'customer' delivery.

Seizing on the opportunity to use these innovations in policy and implementation, city governments will be able to make improvements that result in smarter, more integrated and more interactive urban infrastructure and services – and therefore, better cities. Where this transition leads us matters: market-led roll-out, fragmentation into niches, highly planned and controlled environments, or managed partnerships. Do we enable open and dynamic ecosystems, or do the emerging business models develop into walled gardens controlled by monopolistic technology providers?

The importance of intelligent procurement and delivery of smart city solutions is currently often overseen, resulting in inefficient and unsatisfactory project outcomes. Alternatively: We believe in PPPs as a valuable model for smart and tailored Managed Partnerships

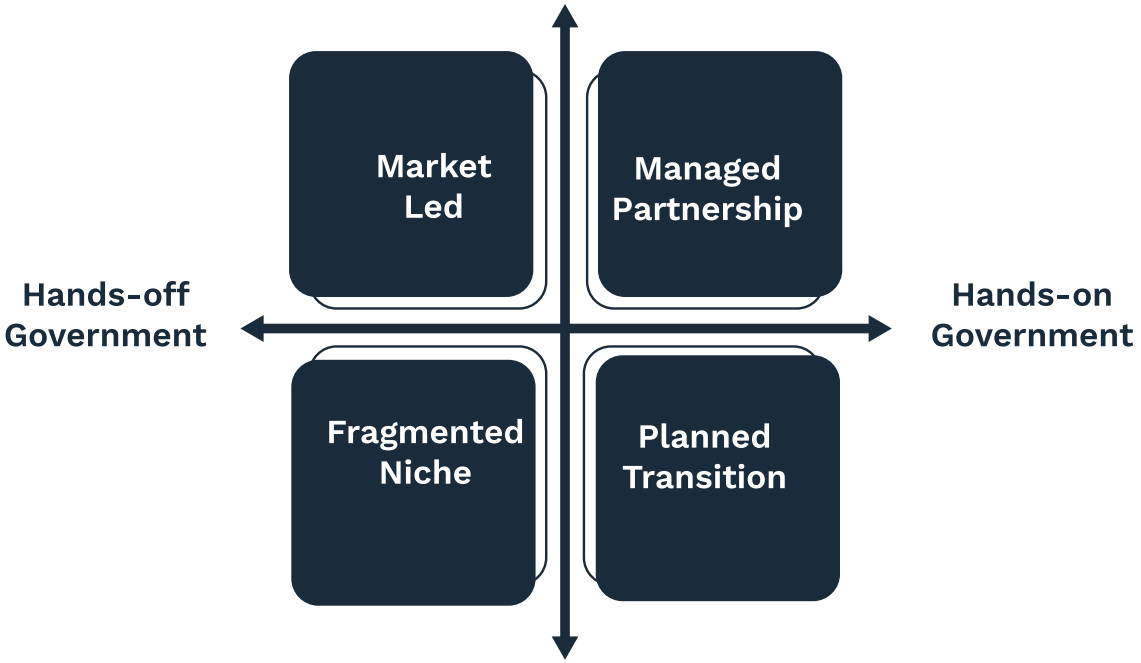
Too often the question of transition planning and delivery while introducing smart city solutions in a city are left unanswered and governments proceed according to a relatively narrow, technology-oriented perspective. This in turn results in plans that never leave the drawing board, in the implementation of pilots only (after which initiatives fade into silence), or on the other extreme, white-elephant ICT projects which end up underutilized or never reach completion. With this in mind, it is the vision of managed partnerships delivering real change and innovation that inspire us as Rebels



*Adapted from PAS-181: 2014

PPPs can help unlock more value from smart city and innovative solutions for the public interest

Our central argument is that there is significant value potential in taking broad Public-Private Partnership (PPP) approaches traditionally reserved for classical urban infrastructure and



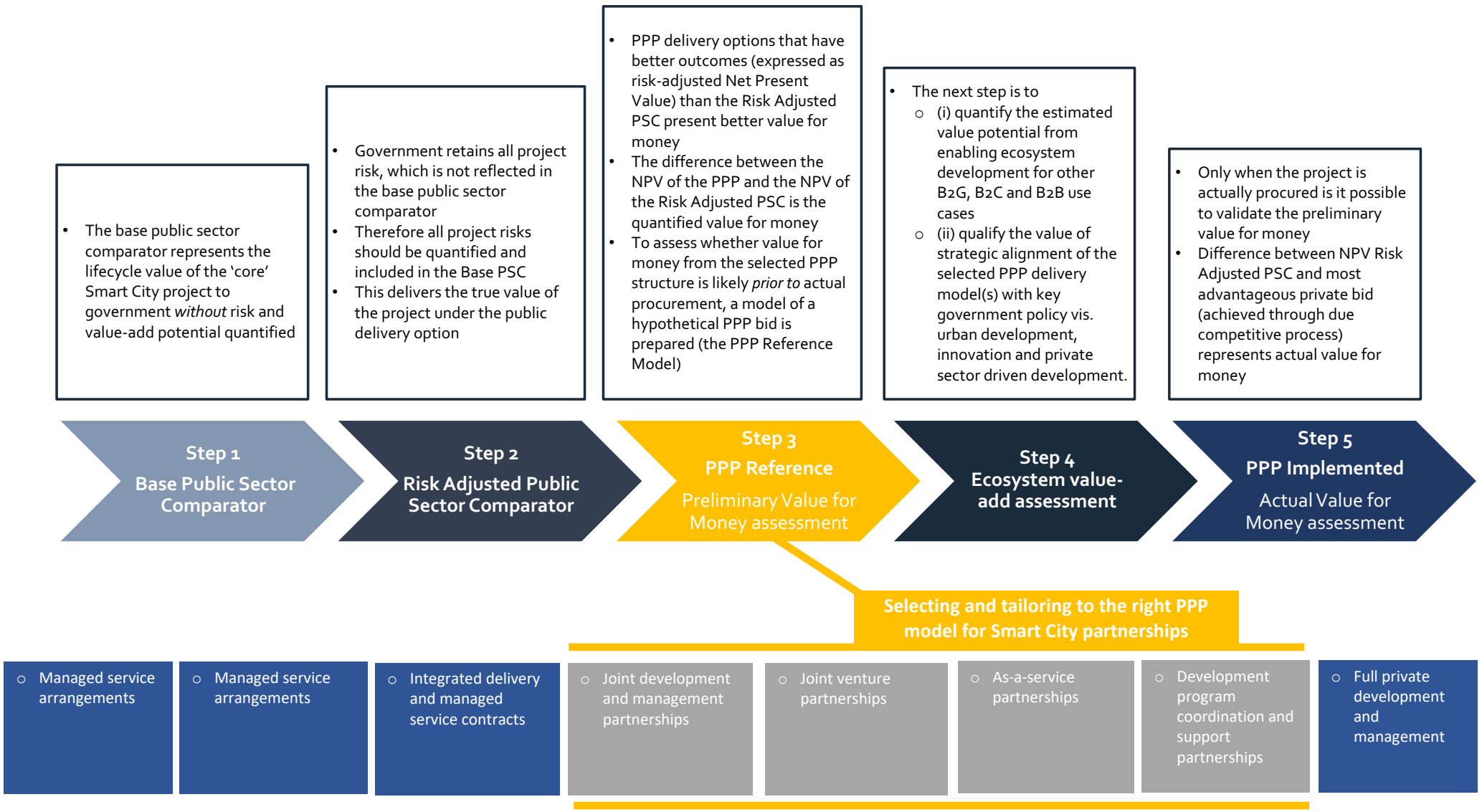
services delivery, and applying them to Smart City programs and projects. Setting up such a deliberate partnership framework that defines the roles, risk allocation and business 'rules of the game' agreed upon will help create the right balance between predictability and entrepreneurship, the prerequisites of harnessing value from innovation for the public interest. Rebel has deep and long experience in helping to develop smart and tailored partnerships that work, not only in paper but also in day-to-day cooperation and delivery of results.

Several critical elements are needed in support of such managed partnerships between the public and private sectors:

The approach to select and tailor the right PPP model builds on best practices for analyzing and validating value-for-money and alignment with the public interest as commonly used and well understood by Rebel in procurement and delivery of complex and integrated infrastructure and other physical public asset PPP projects. Two significant differences between assessing value-for-money for physical and Smart City partnerships as highlighted below are (i) the application of a wider definition of partnerships (beyond singular contractual/transactional interventions), and (ii) the explicit review of the value of potential ecosystem and policy aspects of the proposed model.

- Defining the public interest in terms of Smart City ecosystem and use case minimum outputs, desired service and quality levels, etc.;
- Developing the allocation of roles, scope and risks between partners, in other words the business structure – and in parallel the business rules governing the resulting use case / platform / program / ecosystem;
- Developing a sound contractual framework for delivering the transition;
- Implementing a tendering and partnering process that both works within the procurement framework as well as delivers best value and results in terms of the public interest; and
- Facilitating space and opportunity for entrepreneurship and social engagement by enabling commercial business models and non-profit use cases to be developed 'on the back of' the Smart City ecosystem, if and where possible and appropriate.

Assessing value for money potential and results for Smart City partnerships



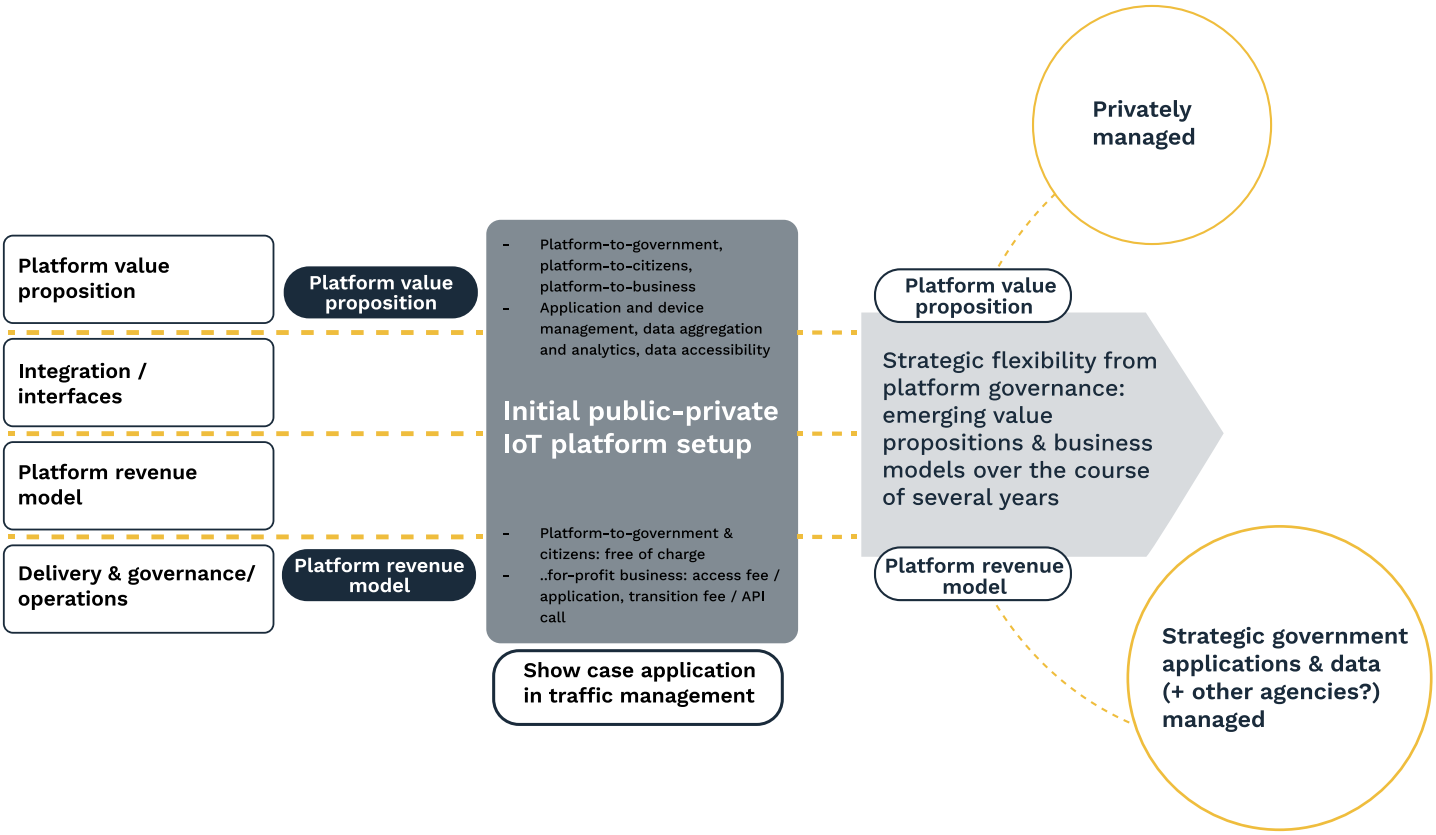
*Model Rebel

Potential applications of partnership approaches to Smart City transitions.

Potential applications of partnership approaches to Smart City transitions, from single asset/service cases to integrative ecosystem-based projects and programs include for example:

- Smart meters;
- Digitization of cash payments for transit;
- Mobility as a Service aggregators; and
- Smart City/IoT platforms.

Hypothetical IoT platform business structure



*Model Rebel

About Rebel

We have ample experience in the above described applications of innovative partnership approaches for Smart City initiatives, including:

- Developing a Smart City Action Plan and Ecosystem Framework for the Government of Rwanda;
- Developing a Center of Excellence for PPPs in the field of Smart Cities for a global payments service provider:
- Scoping emerging smart city solutions in transportation and waste management across the Global South;
- Conceptualizing and tender support for a MENA capital city Smart City IoT Platform;
- Formulating a Smart City Strategy for the Government of Senegal;
- Supporting the development of a Smart City platform PPP for a city government in the Middle East.

Rebel has strategy and implementation experience in complex projects involving (private investment in) urban infrastructure, including transport and mobility, flood protection, climate resilience, renewable energy and waste management.

No change without a Rebel

Rebels work on the issues that affect all our futures, from sustainability, transportation and smart and resilient rban development to healthcare and the social sector. We make an impact, not only as consultants but also as investors. After all, anyone who believes in their own advice should be prepared to invest in it. We are committed to bringing change, initiating and realizing our own projects. We provide quality strategic advice & development, business policy & evaluation, partnership consulting & contracts, financial advice & modelling, and investments & fund management.

Thinking beyond existing structures

The Rebel adventure began in 2002 with ten chairs around a large round table. Sitting around that table, we decided to continue our careers in consultancy by starting our own company – we were the first Rebels. It was to be a company without a hierarchy, without bosses, without limits. A place where everyone could realize their full potential. We bring everything we have inside to the table. Intrinsic motivation, the urge to bring change, expertise and one constant focus: to make a real impact with our projects around the world. We now work with more than 250 Rebels from our offices in Rotterdam, Amsterdam, Antwerp, Düsseldorf, London, Washington D.C., Nairobi and Johannesburg.

The drive and determination of that first step in 2002 informs how we work with and on behalf of our partners to this day. Trust is everything. In everything we do – **and we do a lot!** – our objective is to have a positive impact on the world. At the interface between the public and the private, because combining social values with a keen business sense is close to the heart of all Rebels. That might seem like an ambitious goal, perhaps, but we have always relished a challenge. We invite everyone to join in, to become part of the change. Let's think beyond existing structures. As governments, as companies and as individuals.

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