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## High-potential innovations for a fast-changing continent

Mathilde Martin-Moreau and David Ménascé

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## 2. HIGH-POTENTIAL INNOVATIONS FOR A FAST-CHANGING CONTINENT



***Africa, particularly the sub-Saharan regions, has long been handicapped by the prevalence of simplistic images, rooted either in afro-pessimism or over-valuing the leapfrog effect to transform its development gap into new comparative advantages. Countless reports have highlighted this new narrative, depicting an Africa that is digital and innovative, mobile money being an iconic example of this powerful new movement.***

However, there is less focus on the vision of development, urban in particular, that these innovations are supposed to help bring about. And modern Africa's aspirations for its cities are different, not to say divergent. Edgar Pieterse, at the University of Cape Town, believes that urban development could follow at least four separate scenarios:

- The status quo scenario: a situation unchanged from today's position;
- The green status quo scenario: a more environmentally friendly variant without any fundamental spatial changes;
- The smart city scenario, with blossoming new technologies and major digital businesses but no answers to financial accessibility issues;
- The adaptive city scenario, where technological innovations are adopted but remain rooted in residents' existing practices and habits.

The innovations presented in this issue all fall within the fourth scenario, using technological innovation to address the needs and realities of the majority of its inhabitants.

First come innovations in terms of products and services that need to reflect the particularities of the situation in Africa. Actors across the continent therefore seek to reconcile a frugal approach to innovation – unlike many businesses that equate innovation with greater sophistication – while doing whatever it takes to avoid a paternalistic mindset that seeks to offer degraded services to the least well-off. This idea of “good enough innovation” makes it possible to achieve a balance between these two competing visions, offering products and services that are affordable as well as being aspirational. In sanitation, simplified toilet solutions have been developed in recent years, along the lines of the container-based solutions (CBS) developed by Sanergy, presented in this issue by Louise Couder and Sheila Kibuthu. Such innovations very frequently require us to think outside the box, dreaming up totally new ways of doing things. This is the mindset embraced by Veolia in Africa as described by Christophe Maquet.

Then there are innovations in the economic models, in a context where users are unable to pay the full cost of services, which involve equalization systems, either between services or between users. Recourse to alternative financing models can even involve the cost of a product

or service falling entirely on a third party. The question of equalization raises that of governance, because it requires alignment between stakeholders on the issue of how costs are apportioned. Innovation is therefore also a matter of institutional practices and governance. The role of public actors remains fundamental and technological innovation can never be “the panacea for urban planning”, in Guillaume Josse's phrase. Interfaces between public policies and market mechanisms are key to the development of complementary solutions. For off-grid energy, Sylvie Jaglin and Emmanuelle Guillou explain how institutional uncertainty has triggered the rise of alternative market solutions. All too often, regulations “do not keep pace with these evolutions, making it difficult to create smart hybrid solutions.”

Clearly, innovation also involves reinventing collaborations between the formal and informal sectors in countries where numerous services, due to a lack of satisfactory alternatives, are provided by the informal economy. New digital businesses are trying to bridge the gap between supply and demand together via platforms that put waste generators and collectors in touch with each other. Jeffrey Provencal explores ideas for collaborations in this field. Technology can also be a formidable lever for building new models in a continent with ever-growing cellphone penetration rates. The rise of pay-as-you-go technologies makes it possible to pay for services at levels affordable by each individual household. Sam Drabble outlines several trials using smart water meters.

Lastly, innovation requires a resetting of relationships with users or consumers. This entails incorporating their needs, perhaps even co-creating solutions. The work led by Slum Dwellers International highlights the importance of involving the urban poor in mapping their neighborhoods and designing solutions for access to energy.

Mathilde Martin-Moreau  
David Ménascé  
Archipel&Co,  
Issue coordinators