

# INTRODUCTION

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Obvious to some and a truth hidden from others – Africa is a hotbed of innovation. It is rich in energy resources, fertile lands and mineral reserves vital to 21<sup>st</sup> century technologies. But above all, Africa is rich in the talents of its people and their ability to create and innovate, particularly for providing access to essential services to as many people as possible. Yet despite

massive strides over the past 20 years, access for all to safe drinking water, sanitation, electricity, waste management systems, etc., continues to be one of the continent's pivotal challenges. This applies as much to far-flung villages with no public services as to cities that, temporarily overwhelmed by exploding population numbers, are losing the never-ending battle to provide basic infrastructure.

Africa has myriad facets. It is home to endless innovations for delivering services needed for day-to-day life to everybody, making them more reliable and efficient. These are hybrid innovations straddling the technical, financial and social spheres. They are concrete, often developed from the ground up, created from incremental progress that can spawn disruptive breakthroughs.

But, all too often, a portion of these innovations fail to attract attention. Why is this? Because, despite ushering in genuine progress, many of them are low profile and discreet. Because they are often more low tech than media-friendly high tech. Because, owing to disparate contexts and fragmented markets, they are not yet widespread.

Yet, for those with eyes to see, Africa is a fabulous center of invention and experimentation. Recent years have witnessed the emergence of countless fablabs working on waste recycling, energy, mobility, and so on. But Africa's greatest laboratory is in the field! Grassroots innovations are primarily technological and social. Taking electricity supplies as an example, there are multiple alternatives to conventional models; they include energy kiosks, ready-to-use home solar kits, micro grids, etc. Innovations can equally be commercial and contractual, with the unarguable success of prepaid, pay-per-use and pay-as-you-go models, all tailor-made to reflect amounts that people with low incomes can afford.

These innovations pave the way for a broad palette of proven solutions in the formal and informal sectors alike. Formal sector services can be adapted, for example to implement

novel policies for affordable connections or water recycling to combat water shortages. Informal sector services consolidate and become more professional, metamorphosing into lasting business models. Informal does not equate to irrational, simply to an alternative form of rationality, one that is powerful albeit less visible – in other words, the formal sector cannot claim a monopoly on social and economic rationality. This dialectic between formal and informal, so pressing in Africa, is an extension of that between center and periphery.

Nevertheless, simply juxtaposing innovations, however exciting they may be, does not constitute a strategy for accessing essential services. Most public policies founder on issues surrounding hybridization of solutions that are worth pursuing but highly disparate. After all, universal access to essential services is predicated on the efficient combination of individual and collective services, low cost and high cost, informal and formal systems.

Irrespective of issues surrounding extensions to systems for the supply of water and energy, managing waste or transportation, etc., the challenges that Africa must rise to are numerous and interlinked: mushrooming urban population growth is radically changing the face of the continent's urban framework; many lives continue to be blighted by malnutrition and poverty; every year some 30 million young people enter the labor market in need of training; the need to boost agricultural output to feed a fast-growing population; energy supply, fundamental to all forms of development; the painful impacts of the climate emergency, etc.; not to mention fallout from the COVID-19 crisis.

A continent of extremes, of possibles, of the future. The future of Africa – or the Africas to be more exact, such are the extremes of contrasts between its regions – will be conditioned by its innovations, and by their success and spread. The path to innovation is littered with obstacles, none more so than to their widespread rollout. This is why suitable governance and financing systems are so important, providing innovators with committed and on-going support at every stage of the innovation process, even when they fail, because “the vain effort furthers the successful.”<sup>1</sup> Africa is without doubt facing many challenges, but so too is it a fertile hotbed of innovation. The task now facing the continent is to foster widespread rollout of its promising innovations.

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<sup>1</sup> Antoine de Saint-Exupéry, *The Wisdom of the Sands* (Citadelle)