

# This is the starting point for African smart cities

By [Byron Clatterbuck](#)

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With over half the world's population currently living in urban metropolises and an estimated three million people moving into cities every week, it's safe to say that the concept of smart cities is becoming more crucial than ever.



Photo by Peter Nguyen on Unsplash

This is not only to accommodate the immense influx of new citizens, but also to contribute in a very meaningful way to the populations that live in these vast urban spaces.

Africa, notable as the fastest urbanising continent on the planet, is experiencing these dynamics at an accelerated rate.

The definition of a smart city is wide – and is very case-specific. However, one shared characteristic is that they solve urban problems through the advanced interplay of information, communications technology (ICT) and data analysis.



## How IoT lies at the very heart of the smart city

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“ They constitute an intersection between physical and digital worlds, an interactive meeting point for city officials and the community, an innovative way to tackle inefficiency and enhance urban functions – smart cities encourage economic evolution and improve the quality of life for their inhabitants. ”

## A role model for Africa

Kenya's capital city, Nairobi, is a prime example of a smart city in Africa that is rising to the challenges of today's broadband economy and making sensible ICT-driven and pro-growth decisions at a government level.

With an impressive mobile payments service in place, Nairobi's low-income citizens have immediate access to banking services (usually a "luxury" reserved for high earners). The city's incubation centres encourage the development of cutting-edge startups and technology-centred solutions that can cater to global business issues.

Meanwhile, on the education front, university innovation centres train students to look for gaps in society to create jobs, and schools are shifting their focus to technology and ICT.

Other African cities would do well to follow suit.

According to a UN study, by 2035, over 50% of Africans will be urbanised. And by 2050, Africa's slum population will have tripled.

## Data drivers for success

With a real need for smart city development, what are the key elements for success in Africa?

*“ First and foremost, there is the need for the basic underlying ICT infrastructure. Centrally-managed, open-access and affordable physical networks allow city dwellers to connect easily to any ISP or service provider, maximising revenues and minimising expenditure in the long run. ”*

Large and resilient carrier-neutral data centres are also important to facilitate smart city services, such as security, utilities and analytics, which can be streamlined and angled to specific citizen needs.

On a broader level, smart cities also need ICT providers that bring more than just technical and technology skills to the table – they need ones that also offer industry-related knowledge, strategic planning and management capabilities to be able to coordinate and integrate systems between service providers. For example, a system that brings together traffic and security data on a single hosted platform will enable citizens to avoid congested areas and shorten commuting times on a daily basis.

## Far-reaching benefits of broadband

With a technological shift in urban planning comes the potential for the betterment of government services like healthcare and education.

By promoting the development of science, technology and innovation, smart cities offer opportunities for new, digitally-enhanced universities, increased collaboration between education and technology hubs, and employment openings for university graduates at these companies.

Furthermore, students will be exposed to more incubation centres with an increased nudge to think outside the traditional business box and pursue startup ventures.

“ With reliable data connectivity, African universities will have the capacity to share knowledge with global businesses and compete on an international scale. ”

From an international perspective, a smart, secure outlook on urban development attracts prospective global investors and businesses to inject resources into the continent.



## Why smart transportation is a game changer for Africa

Sherry Zameer 22 Jun 2018



Multinational ICT firm Huawei, for example, has launched a R20.3bn fund to help fuel the building of smart city infrastructure in Africa. This financing programme will assist in laying the groundwork so that highly useful, but bandwidth-intensive tools – such as the internet of things (IoT) and intelligent video surveillance – can be used to gather information and enhance the speed and efficiency of decision-making in Africa’s urban centres.

## Rapidly changing challenges

In closing, African cities are facing rapidly changing challenges. From severe water shortages to immense waste pollution and road congestion, a high degree of complexity has emerged over the last couple of decades to challenge city managers and planners.

Today, we are forced to think differently and consider a more managed, integrated and connected approach that allows for real-time responses to challenges.

A smart city, continually processing big data from a variety of sources, will be better equipped to deal with change than one with a simple traditional and transactional relationship with its citizens.

It all starts with reliable, high-speed and high-capacity data connectivity – connecting citizens with the state, connecting data with ICT systems, and connecting the city to smart solutions to improve the lives of all.

## ABOUT THE AUTHOR

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