

Jakarta's Smart City vision

A megacity on a mission



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The capital city of Indonesia, Jakarta, has one of the highest rates of urbanisation in the world and possesses one of the highest incomes per capita in the country. But while urbanisation can be economically desirable, it also presents its own unique host of challenges. With the rapid population influx, Jakarta will need to become more adept and efficient at delivering public services, solving traffic congestion problems, managing waste and pollution, and ensuring citizen health and safety – all while attempting to build a cohesive, participative community.

It is a daunting task. Nevertheless, the integrated use of information and communication technology across all domains of the public sector has the potential to enable Jakarta to do more with less, and to enhance living standards while generating economic prosperity. In short, Jakarta will need to become a Smart City.

With the next decade likely to herald a new generation of urban citizens, a global populace that emphasises – if not demands – Smart solutions in every aspect of their lives, meeting these expectations of a Smart City will require leveraging traditional and modern enablers to fuel sustainable economic development, that is, the ability to achieve the desired standards of living while ensuring responsible management of natural resources.

In this study, we explore ways to accelerate Jakarta's momentum in its Smart City journey. While the city has achieved significant progress in some areas, a number of key gap areas remain. With the effective and seamless implementation of the right solution themes identified in this study, these gaps may well form valuable stepping stones on Jakarta's journey towards becoming a Smart City.

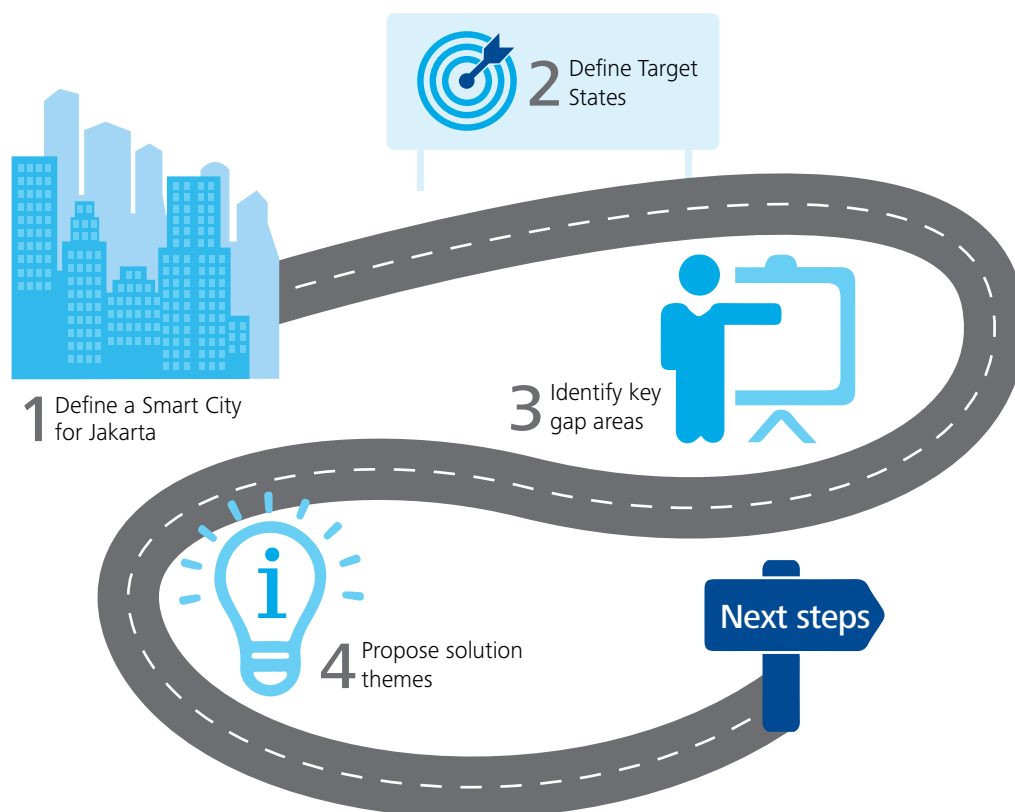
The journey towards becoming a Smart City

The road to becoming a Smart City is a unique journey for any city, depending on its maturity level and distinctive challenges. Cities can be classified into the following three stages of growth: the Legacy City with a stable population and well-established infrastructure (such as London, New York City, and Tokyo); the New City that has seen recent development marked by substantial planning (such as Dubai, Putrajaya, and Songdo); and the Transitioning City that is characterised by significant population growth and urbanisation, leading to challenges in infrastructure (such as Bangkok, Jakarta, and Ho Chi Minh City).

As a Transitioning City, Jakarta faces similar implementation challenges as its peers at a similar maturity level, such as Bangkok and Ho Chi Minh City. These cities (including Jakarta) typically need to address multiple areas of significant complexity – for example, the issues related to long-term strategic planning and good governance; the unenviable task of meeting the ever-increasing needs and demands of a diverse population (from those demanding first world facilities, to a large proportion still bereft of basic day-to-day amenities); the challenges – as well as opportunities – of balancing the delivery of basic and Smart infrastructure and services simultaneously; and the constant demand to find adequate financial resources to fund any plans.

To enable Jakarta to take the first stride in its journey towards becoming a Smart City, a structured process (see Figure 1) was used to define some of the Target States that Jakarta needs to and is able to achieve, identify the major gap areas, and suggest relevant solution themes to address these gap areas. During this process, stakeholders across the spectrum have been consulted and closely engaged for their inputs. It is hoped that, through this exercise, we will be able to catalyse the debate, decisions and, ultimately, actions for Jakarta to build the momentum towards achieving its Smart City vision.

Figure 1: A roadmap for Jakarta's Smart City journey



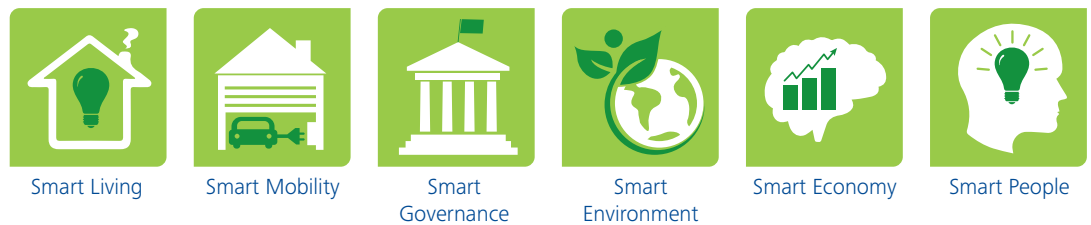
Step 1: Define a Smart City for Jakarta

A number of Smart programmes supporting Jakarta’s Smart City ambition are already in place. But in order to undertake a comprehensive transition to a Smart City, Jakarta will need to have a clear vision of a Smart City that it is working towards, along with related goals and metrics that are tangible, measurable and actionable.

Step 2: Define Target States

To facilitate this, the Smart City Wheel Framework, a widely practiced methodology – as well as peer benchmarking against existing Smart Cities – was used to define the Target State goals for Jakarta’s transition into a Smart City by 2025. A set of goals related to six inter-connected Smart categories (see Figure 2) – Smart Living, Smart Mobility, Smart Governance, Smart Environment, Smart Economy, and Smart People – were set and translated into specific metrics for 25 sub-categories and 108 related key enablers that are ambitious, relevant, measurable, and achievable (see “Measurable targets for Jakarta’s Smart City in 2025”).

Figure 2: Six inter-connected Smart categories



Step 3: Identify key gap areas

By comparing Jakarta’s Current States to its Target States, key gaps were identified in each of the six categories that will need to be addressed in order for the city to achieve its Smart City vision.

Step 4: Propose solution themes

With an understanding of the various gaps between Jakarta’s Current States and Target States, solution themes were proposed to help bridge the chasm. To ensure that Jakarta reaches its goals, comprehensive blueprints and roadmaps will also need to be developed to guide their implementation.

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In this study, we identified 16 solution themes that we believe, if acted upon, have the potential to enable Jakarta to sustain its momentum. Nevertheless, implementing these themes will still require much effort: comprehensive blueprints and roadmaps must be developed to guide their implementation; and stakeholders must manage the multiple risks, including but not limited to technological risks, social acceptance, and environmental sustainability, that such an endeavour entails.

To facilitate effective and seamless implementation of these solution themes, it is essential to identify an ecosystem of partners comprising the government, private sector players, non-governmental organisations, development agencies and civil society. These stakeholders will need to collaboratively develop implementation plans and obtain funding from the public and private sectors, and bring together the hard infrastructure, social capital and digital technologies to fuel sustainable economic development.

More importantly, every solution theme will need a programme owner who will be responsible for driving and executing the solution themes, addressing the gap areas and catalysing future actions that translate to actual solutions and results.

Indeed, these next steps are crucial as a whole host of actions and should be accompanied by milestones to accelerate the momentum towards becoming a Smart City. With the successful implementation of these solution themes, Jakarta will be one step closer to turning its Smart City dream into a reality.

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