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A forward-looking approach to large-scale urban developments

Large-scale integrated urban developments can be challenging endeavors, especially as customer needs and technologies keep changing. One master urban developer discusses successful approaches to overcoming obstacles in the development process.



Cindy Lim

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Urban development should focus on meeting the needs of people within a community, but the best way to achieve that goal is always changing. Cindy Lim, managing director of Singapore-based Keppel Urban Solutions (KUS) and director of group corporate development at Keppel Corporation Limited, understands these truths well. In this interview with partner Mukund Sridhar, Lim discusses the state of urban development today and provides some best practices gleaned over the years for creating developments that are not only human-centric but also commercially viable and sustainable.

McKinsey: *What key trends do you see in urban development today?*

Cindy Lim: I see three major movements in the urban development space. The first is the convergence of urbanization and Industry 4.0. A decade ago, rapid urbanization created problems, such as gridlock and air pollution, in need of solutions. With today's technology ecosystem, however, there are endless solutions to address challenges while creating new value at the same time. To create value, we have to collaborate closely with other players in the urban development ecosystem. We need to move to a place where, instead of merely competing, we are collaborating and co-creating along the value chain.

Second, urban development is transforming to emphasize services and enhanced user experience from the onset of project development, instead of being solely focused on the homes themselves. From day one, designers and developers now have to consider the implications for users—including retail and institutional tenants, as well as those who maintain and operate the infrastructure, such as the municipal government. Increasingly, because of the growing number of consumers demanding new technology-enabled solutions, both the public and private sectors are starting to coordinate to improve

citizens' daily lives. There is huge potential for social capital to be unlocked here.

Finally, users today are more receptive to change and to embracing the marketplace. I am optimistic that the journey ahead can create new value.

McKinsey: *What is an effective approach to adopting new technologies in major developments?*

Lim: Large-scale integrated urban developments have lengthy time frames, involving multiple phases over years. Forward-thinking developers may struggle with certain technologies becoming obsolete during the development process. Such urban developments are also very location-specific endeavors. Differences in maturity between countries and cities, not to mention cultural differences and budget gaps, mean that developers cannot simply adhere to a one-size-fits-all template when it comes to deploying technology. Instead of having developers prescriptively identify the solutions that they want, technology partners should collaborate with developers to surface leading-edge offerings on a regular basis and ensure that their technological solutions are kept up to date and location-specific.

McKinsey: *Is it difficult to find partners who can operate at that level?*

Lim: I always tell stakeholders that there is no lack of technology partners. Instead, what we lack are good projects. Given a good township or smart-city project, there will always be forward-looking and progressive partners who are willing to be creative with their technological solutions. These partners will then bring along their own network of providers. And this network effect allows developers to deliver new benefits for their customers.

McKinsey: *What is a takeaway from KUS's recent large-scale integrated developments that you and others can apply going forward?*

Lim: Large-scale projects are capital-intensive. As such, most developers look at them from a capital-expenditure point of view, where cost optimization is a key focus. While cost is important, this narrow focus can be a pitfall. In our view, to drive a successful smart city, developers have to commit to the total cost of ownership approach and take a long-term view of their investments by considering the appreciation of value and cost of operation over the project life cycle.

Looking at ten, 20, or even 30 years out, it becomes clear that a marginal increase in capital expenditures on reliable infrastructure can bring about significant total life cycle cost savings. For example, materials that are more expensive but highly reliable translate to fewer repair and maintenance costs. Moreover, often an added benefit of higher-quality materials is better performance, which can translate into a better customer experience.

Currently, we are working on Saigon Sports City, a 64-hectare township that we are developing in collaboration with Keppel Land in District 2 of Ho Chi Minh City. Right from the initial planning and design stage, we adopted a biophilic design approach, one that connects occupants to their natural environment. We conducted solar and wind analysis to achieve the best ventilation and thermal comfort in our urban design and building orientation. We also carried out a hydrology study to ensure that the design was in harmony with nature, incorporating water-sensitive urban design features such as rain gardens and bioswales. These help not just to cleanse water and slow surface runoff, but also connect people with nature in a waterfront setting.

Understanding these needs is key to generating long-term value for a large-scale development. The upfront costs of designing and implementing these green features, public spaces, and landscaping, even before launch, may have been capital-intensive to the point of being counterintuitive. But it will be paid back in the long run through cost-savings from reduced energy and water consumption, and even more significantly, from enhanced asset value.

McKinsey: *Sustainability is top of mind for many urban developers today. What does this look like in practice?*

Lim: At Keppel, we believe there are three areas of sustainability to consider. First, there is the environmental and ecological aspect. For instance, when we talk about energy, instead of using an individual compressor chiller for air conditioning, we use centralized chilled water for cooling at a district level for greater efficiency. In waste management, we look for opportunities to achieve closed-loop, zero-waste systems. In this way, we are also pushing cities to adopt longer-term solutions.

Second, we look at sustainability from the people aspect. We are passionate about placemaking—designing space with the objective of encouraging interaction—to achieve synergy between physical assets as well as to blur the line between residential and commercial use. A community needs to be vibrant and livable to be successful. People should feel safe and secure in their residences, look forward to engaging their neighbors, and be comfortable traveling between home and work. In addition, organizing micro events at the neighborhood or precinct level can also help to encourage social cohesion.

Last is economic sustainability. People must have a reason to reside in a township, which could be the

presence of good jobs, convenience of commute, or comprehensive services and amenities (such as education and healthcare) within the township.

Keppel seeks to deliver solutions for sustainable urbanization profitably, safely and responsibly. Learning how to prioritize this triangle of sustainability and making it happen in practice has been, and will continue to be, a journey for all of us. ■

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