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Building on smart cities for sustainable growth

Singapore Management University

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As global populations become increasingly urbanised, companies that keep track of resources consumed and waste production will help the earth while pad their bottom lines

The United Nations wrote in its 2018 World Urbanization Prospects report that 55 percent of the world's population resided in urban areas, a figure that is expected to rise to 68 percent by 2050. That 13 percent jump represents another 2.5 billion people making the move from a rural residence to the city.

For China, whose proportion of urban population is projected to reach 78.3 percent by 2050, it also represents investment opportunities in smart city initiatives.

"It's about smartening up your infrastructure so that it can automatically keep track of all the energy consumption, water consumption and waste," explains **Priscilla Lu**, Head of Sustainable Investments at DWS Asia. Citing research by IDC, Lu points out that spending on technologies that enable smart cities will grow from US$80 billion to US$135 billion by 2021.

For companies looking to invest profitably in updating such infrastructure, Lu says the technology has already been proven in Europe. All that is needed is scaling up.

"The technologies and systems and solutions that could address very urgent problems of hazardous waste or even plastic recycling have been quite proven in Europe, so the difference is the scale," she elaborates. "Where you might be processing a few tons, you're now talking about a few hundred tons per day, or maybe even a few thousand tons a day.

"The innovation here is applying it in a large scale. I would say the low hanging fruit here where you get excellent returns and excellent growth very quickly, is really looking at those opportunities where proven services, technologies and systems can be applied in a large scale because that's where the demand is."

ESG: GOOD FOR THE ENVIRONMENT, GOOD FOR THE BOTTOM LINE

Lu made those observations in a keynote address "Smart Cities and Sustainable Finance" at the TBLI-SKBI conference held at SMU in November 2019. Citing her experience sitting on China's Green Finance Committee, which selected 60 Chinese corporations to determine criteria for auditing ESG (Environmental, Social, and Governance) performance, Lu makes the case for simple metrics to facilitate measurement.

"For energy consumption: Is it green or is it fossil fuels?" She articulates. "Water consumed: how much was used, and how much wastewater was produced? And do you reuse the greywater so that it actually negates your water consumed? So the more greywater that you can reuse, the less your water consumption.

"Last, but not least, is waste. What kind of waste is produced? Is it recycled? Is it a contaminant? Did you treat the toxicity in the waste? And then is it decomposable waste? All that will provide visibility in very simple terms that can be quantified. That is how you are capitalise and efficiently utilizse the capital that the company has access to."

Lu also makes the point that capitalism is not just about profits but also about the environment. If metrics could be built to measure how companies are contributing to improving the environment, it could ultimately show up as financial benefit.

“The more water you use, the more money you spend,” Lu explains. “The more energy you use, the more money you spend. The more waste you produce that cannot be recycled and reused, the more money you spend. So again, it does in the end have an impact on profitability.” She adds:

> *“Coming back to smart cities: what does that mean? In order for you to have visibility on all those metrics as a corporation, you need to be able to track it, manage it, and measure it.*
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> *“So if you're a logistic company, you need to be able to route your traffic efficiently. You need to be able to make sure that you are not stuck in traffic, burning gasoline or even energy to try to get to some place because you've not got a optimal route with respect to the delivery. So again, there are all aspects of efficiency that can be built in.*
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> *“So if you are looking for availability of charging stations, rather than try and find where the available parking or the available charging station is, you can easily from an app be able to see where the availability of these charging stations are. Or, where available parking is. And be able to get there and not have to waste time as well as energy to actually get there.”*

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