

Headline:	HDB to explore building cooler homes, 3D printing for future flats		
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Singapore

HDB to explore building cooler homes, 3D printing for future flats



SINGAPORE: Cooler Housing and Development Board (HDB) flats could soon be a reality for Singaporeans.

At the Urban Sustainability R&D Congress 2019 on Tuesday (Jul 23), HDB signed a Memorandum of Understanding (MoU) with Evonik (SEA) to incorporate the firm's new silicon-based material into the roofing of HDB flats, offering better protection against Singapore's heat.

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Called Calostat, the insulation could reduce the ambient temperature in HDB flats by up to a degree Celsius.

Initial trials are expected to start in the first quarter of 2020, and Calostat could also potentially be used for other parts of the building if they are successful, said HDB in a press release.

"The silicon-based material, which is sustainable, non-combustible, hydrophobic (able to repel water) and pressure resistant, has been tested and proven to have good thermal insulation properties, and adopted in developments in Germany, Switzerland and London," HDB added.

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HDB and Evonik are also working on improving concrete pre-mix, to allow for 3D printing of HDB building components.

In contrast to the conventional pre-cast production process, 3D printing will reduce the time needed to build flats and will offer buyers more design options for their homes.

It will also tackle the issue of labour shortages in the construction industry, and improve workers' productivity.

HDB also signed a Research Collaboration Agreement with V-Key to study potential enhancements to HDB's existing smart living systems, already in place at the new Punggol Northshore flats.

The study hopes to integrate smart appliances across different brands to create a seamless experience for HDB home users. This will include features such as smart lighting, smart curtains and motion sensors.

Addressing researchers at the congress, Minister for National Development Lawrence Wong urged greater collaboration between the public and private sectors.

"I am very mindful that the journey from R&D to commercial solutions is not easy. And that's why (the Government has) been looking at ways to strengthen partnerships with the private sector to support all of you in your R&D journey," he said.

CITIES OF TOMORROW

At the congress, Mr Wong also announced that S\$70 million of the previously allocated S\$150 million under the Cities of Tomorrow programme will be invested over the next two years.



HDB signed a Memorandum of Understanding with Evonik (SEA) on Jul 23, 2019. (Photo: Cindy Goh)

This money will be used to address challenges that Singapore might face in the future, including climate change, and to maintain the city's liveability.

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He also announced a new initiative, called the Built Environment Technology Alliance (BETA), which will facilitate the access of firms in the built environment sector to new technology and reduce costs.

Five R&D awards were also given out by Mr Wong to "recognise and encourage outstanding R&D efforts from the MND Family and partners".

Both HDB and the National Environment Agency (NEA) were given distinguished awards for the Smart Hub project and Project Wolbachia respectively.

HDB's Smart Hub project is a centralised data platform for 10,000 HDB flats across 24 towns, which collects data from smart estate services and develops business intelligence tools for performance monitoring and data analytics.

Project Wolbachia by NEA aims to reduce the number of dengue mosquitoes in Singapore by removing the male mosquito's ability to breed.

Three other projects by the Energy Market Authority (EMA), A*STAR and HDB also won merit awards.

Source: CNA/nc/ms

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