

2<sup>nd</sup> Prize, Topic 1 Tertiary Category

# PLAB Smart Communities

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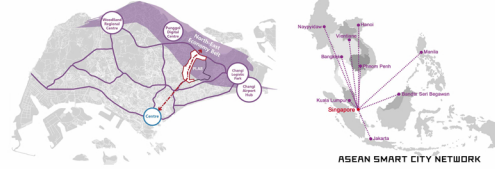
## JURY CITATION:

The jury commended the scheme for effectively applying a variety of courtyard typologies across different land uses to create a sense of community and identity within each precinct. This also results in a unique identity created along the runway focused mainly on providing work spaces for production and research & innovation supported by co-working spaces located along the sub-spines. The plan has also considered how mobility and urban logistics can be integrated into the way work and live spaces are organised.

## PLAB AS PIONEER OF SINGAPORE



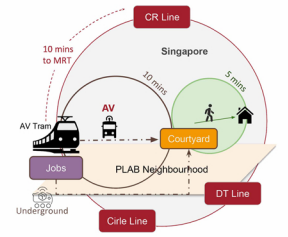
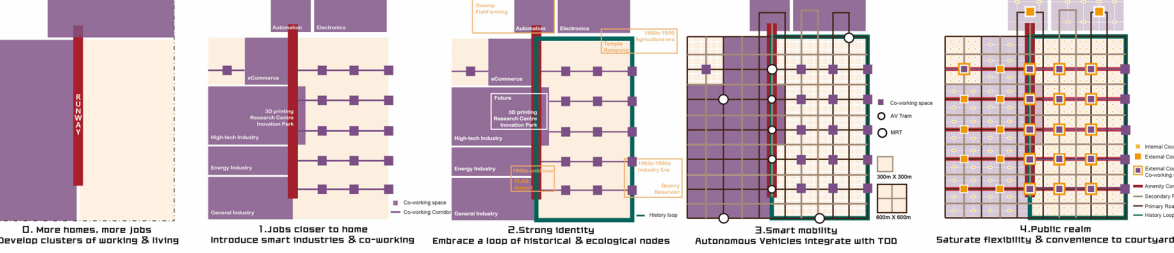
## SINGAPORE LEAD ASEAN TO SMART



## VISION STATEMENT

1. Inherit the leadership to be ASEAN SMART pioneer.
2. Develop a SMART mobility system, integrating daily lives with recreational and innovation activities.
3. Embrace SMART communities, develop new models with high efficiency and flexibilities.

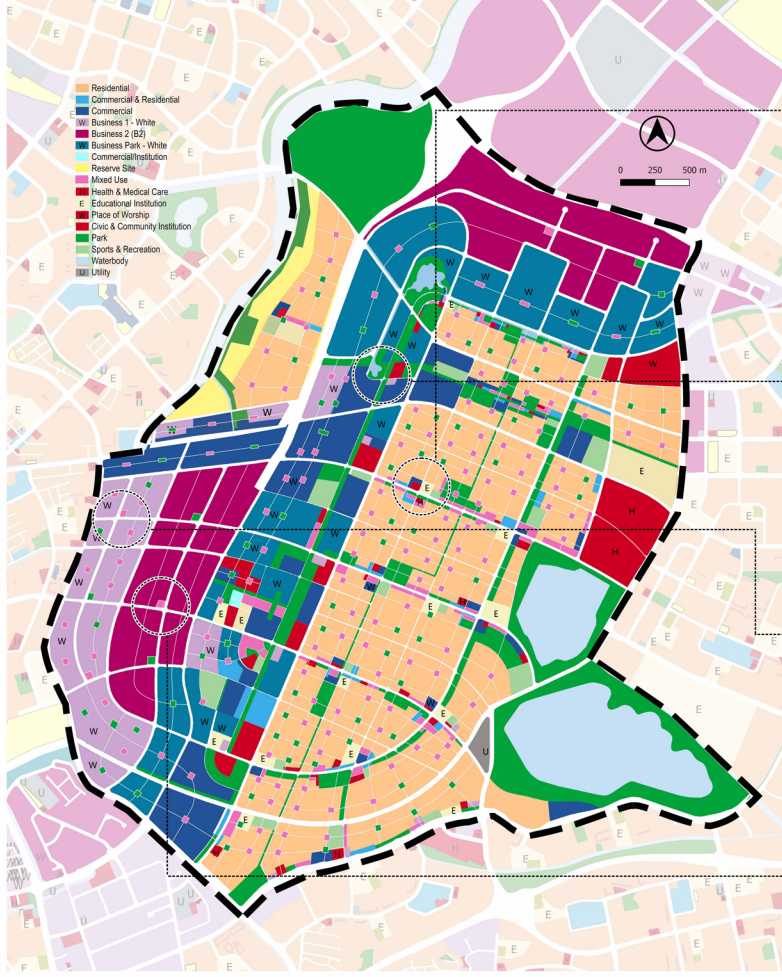
## ORGANIZED TO BE SMART



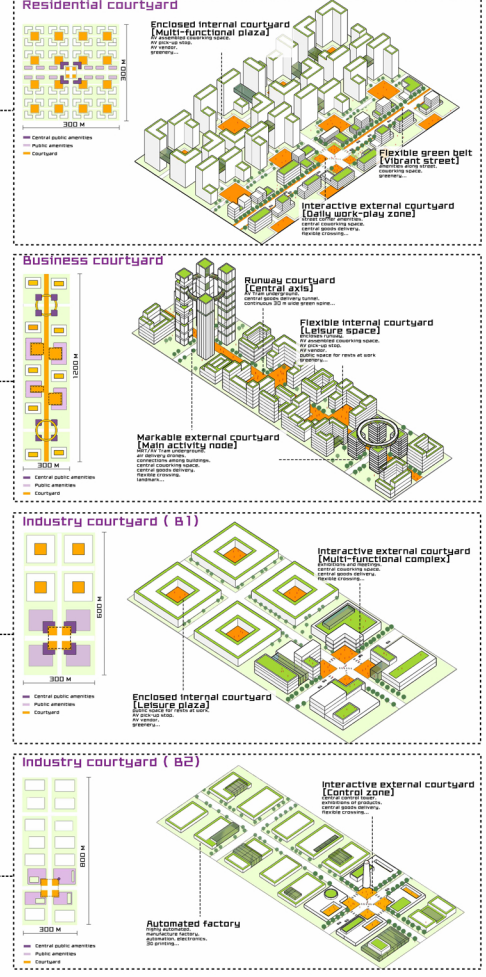
## LAYERS



## LAND USE PLAN



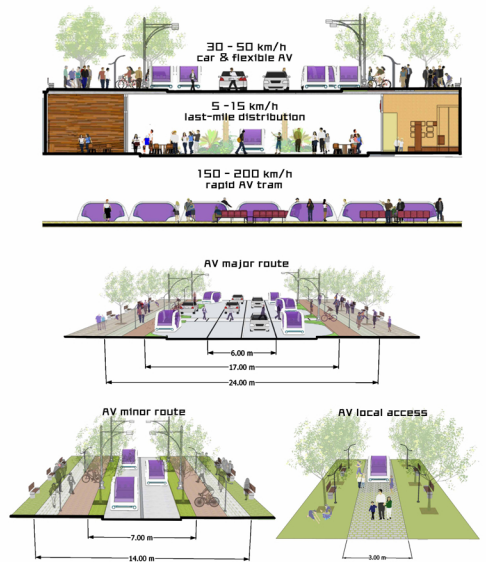
## SMART COMMUNITIES



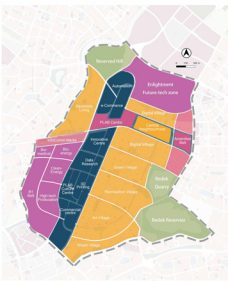
## PARTIAL SIMULATED PLAN



## INTEGRATED MOBILITY



## Zoning



## PARTICIPANTS' WRITE UP:

### PLAB Smart Communities

#### **Inherit the leadership to be ASEAN Smart Hub**

As the first commercial airport and current airbase of Singapore, PLAB has always taken the lead in propelling the national development. With the changing technology and politics internationally, PLAB needs to take a cautious but bold step of transformation. With the establishment of ASEAN Smart Cities Network, Singapore has the ability to lead in logistics and fundraising. As the only large brownfield site located in the core of the North-East economy belt, PLAB is the natural leader to develop Smart industries and propel Singapore's economy. The current Smart-related industries in PLAB will be reinforced. New land parcels will be prepared to support the future development in automation, artificial intelligence and 3D printing. Kaki Bukit industrial estate and Defu industrial park will be integrated and transformed to facilitate a future work mode.

#### **Develop a SMART mobility system, integrating daily lives with diverse activities**

The runway will be transformed into the major axis of infrastructures and the meeting point of work and life. An AV TRAM line will be provided beneath the runway, connecting to Downtown, Circle and Cross-island lines. The AV TRAM stations will be integrated with future community centres, and sub-spines will be developed from the AV TRAM stations as vibrant streets to serve each neighbourhood. A linear park will run across the runway, connecting the green corridor with historical or ecological nodes to evoke memories and inspire future transformation. The industries along the runway will be focused on research and innovation, with a good connection to each co-working space along the sub-spines. Industries facing away from the runway will be more automated and focused on production. A complete autonomous vehicle system will run across the site and facilitate good mobility.

#### **Embrace SMART communities, develop new models with high efficiency and flexibilities**

Smart communities with different functions have been proposed with the new mobility system and physical planning layouts, through the concept of the internal or external courtyard.

- 1 *Residential external courtyard* of each neighbourhood will serve as the daily interactive zone for residents, with a dense transport network and diverse functions surrounding it. An underground goods-transport system will also be developed from the runway to connect it.
- 2 *Residential internal courtyard* of each estate serves as the vehicle stop and multifunctional plaza. Flexible services will be delivered to the courtyard to facilitate various events, goods will be also delivered to each void deck and sent to each storey.
- 3 *Business external courtyard* will serve as the interactive zone of working, innovation and recreation, as well as a landmark enclosed by greenery. The underground of each courtyard will be integrated with AV TRAM stations and markets.
- 4 *Business internal courtyard* will be a flexible leisure space for industrial and commercial offices, which is located on the runway, with good proximity to cultural and ecological nodes.
- 5 *B1 industry external courtyard* will serve as an interactive complex with multiple functions, and also as the industrial core and facilitating linkage to the co-working spaces.

- 6 *B1 industry internal courtyard* will serve as the vehicle stop and provide flexible green leisure space.
- 7 *B2 industry external corner* will serve as the control centre of the surrounding automated factories, as well as the underground logistic centre of the industrial parks.