

Punggol: Realising the Vision of Singapore's first Smart and Sustainable Town

As the master planner and largest housing developer in Singapore, HDB plays a key role in supporting Singapore's commitment to sustainable development, and continually pushes boundaries with innovative housing concepts. Punggol town, one of our youngest HDB towns, presented a very good opportunity for HDB to demonstrate sustainable urban planning and design, green technology adoption and to encourage more members of the community to lead eco-friendly lifestyles.

2 The blueprint for Punggol 21 was unveiled in 1996, with the vision for the town to be 'A Waterfront Town of the 21st Century', incorporating new planning concepts and high-quality public housing to meet the housing aspirations of Singaporeans. Drawing inspiration from its waterfront location and lush greenery, Punggol is planned and designed based on the overall theme of 'Water and Nature'.

3 Designated as Singapore's first eco-town, Punggol is also designed to be a 'thriving, smart and sustainable waterfront town', and serves a 'living laboratory' for ideas and technologies promoting sustainable development. Together with various partners, new ideas and technologies have been test-bedded and applied to create a sustainable, liveable, and more pleasant environment for residents.

Planning Principles

4 Punggol town is planned with 11 signature housing districts, and each district is further split into estates to create smaller and more intimate communities. Within each estate, there will be a common green, school and a precinct shop cluster, to foster greater interaction amongst the residents and to ensure ease of accessibility to amenities. Punggol Northshore is Punggol's first district to test-bed smart technologies in public housing right from the design stage, to enhance the planning, design and maintenance of HDB estates to bring about a more liveable, efficient, sustainable and safe living environment.

5 To create a live-learn-work-play environment to meet residents' needs, a hierarchy of commercial, civic and community facilities have been planned for Punggol. For example, the commercial facilities in the Town Centre serve the retail needs of the entire town, while commercial centres, which are medium-sized shopping centres (i.e. Oasis Terraces, Punggol Plaza and the upcoming Northshore Plaza), serve residents living in the nearby estates. Within each precinct, a cluster of shops, typically comprising a supermarket, hairdressing salon, clinic and an eating house, is planned near every LRT station in the town to serve the day-to-day needs of residents. Civic and recreational public spaces are similarly planned in a hierarchical manner, to foster active and cohesive communities. A comprehensive intra-town cycling network and Park Connector Network (PCN) have also been planned for Punggol, to enhance first and last mile connectivity and encourage clean commute among residents.

The Test-Bed for New Urban Solutions

6 Punggol is also the test-bed for many urban solutions for sustainable living. So far, 30 solutions have been implemented and rolled out to the rest of Punggol, such as the dual bicycle racks and the rainwater harvesting system. Of these, 22 solutions have been implemented beyond Punggol, such as the centralised chutes for recyclables, and smart lighting.

7 HDB's R&D efforts have also resulted in patents being filed and created, enabling several innovations to be commercialised. This is a culmination of our efforts in collaborating with various stakeholders such as the research community, companies and Institutes of Higher Learning.

A Model Town

8 As Punggol is progressively developed and more innovations are successfully trialed, the smart and sustainable features will be replicated in upcoming developments such as the new town of Tengah, as well as in the rejuvenation of existing towns across Singapore, where feasible. At the same time, HDB will explore

the possibility of introducing new smart and sustainable initiatives to other existing developments within Punggol.

9 This year, the town has gained regional and international recognition by clinching both the 2021 Urban Land Institute (ULI) Global Awards for Excellence and Asia Pacific Awards for Excellence, which honour excellence in land use that can be replicated in other projects or communities. Other awards are listed below.

Key Awards for Punggol

1. 2012 Grand Prize for the Excellence in Environmental Engineering Award – My Waterway@Punggol (Environmental Sustainability Category)
2. ASEAN Outstanding Engineering Achievement Award – My Waterway@Punggol
3. BCA Design and Engineering Safety Excellence Award 2012 (Merit) – My Waterway@Punggol
4. HDB Construction Award 2012 – My Waterway@Punggol
5. IES Prestigious Engineering Achievement Awards 2012 – My Waterway@Punggol
6. International Water Association Global Project Innovation Awards 2012 Global Grand Winner – My Waterway @ Punggol (Planning Category)
7. International Water Association Global Project Innovation Awards 2012, The Superior Achievement Award Winner – My Waterway @ Punggol
8. America Society Civil Engineering Outstanding Civil Engineering Achievement Award 2013 (Merit) – My Waterway@Punggol
9. BCA Universal Design Mark Award 2013 (Gold under Non-Residential (New) Category) – My Waterway@Punggol
10. FIABCI PRIX d'Excellence Award 2013 (Gold under Public Infrastructure Category) – My Waterway@Punggol
11. Excellence on Waterfront Center Honour Award 2014 (Waterfront Plans Category) – Punggol Master Plan
12. Green Apple Award (Asia Gold Winner) – My Waterway@Punggol

13. IFLA Asia Pacific Region Awards for Landscape Architecture (Merit under Landscape Design Category) – My Waterway@Punggol
14. FIABCI PRIX d'Excellence Award 2015 (SG50 Special Award) – My Waterway@Punggol
15. ASEAN Outstanding Engineering Achievement Awards 2016 – A Biophilic Waterway@Punggol – Innovative Floating Wetlands and Freshwater-Tolerant Mangroves
16. IES Prestigious Engineering Achievement Awards 2016 - A Biophilic Waterway@Punggol – Innovative Floating Wetlands and Freshwater-Tolerant Mangroves
17. American Environmental Sustainability Honour Award 2017 - A Biophilic Waterway@Punggol – Innovative Floating Wetlands and Freshwater-Tolerant Mangroves
18. Energy Globe Award 2017 - A Biophilic Waterway@Punggol – Innovative Floating Wetlands and Freshwater-Tolerant Mangroves
19. CAPAM International Innovations Awards 2018 (2nd for the Innovation DNA Category, winning the Certificate of Distinction/Finalist Award) - Innovative Floating Wetlands and Freshwater-Tolerant Mangroves
20. Green Apple Award 2018 for Environmental Best Practice Asia, Silver Award - Green Commuting in Punggol
21. Green World Award 2019 (Silver under Regional Government Category) - Green Commuting in Punggol Eco-Town
22. Urban Land Institute (ULI) Asia Pacific Awards for Excellence 2021
23. Urban Land Institute (ULI) Global Awards for Excellence 2021