



**CONSTRUCTION  
INDUSTRY COUNCIL**  
建造業議會




**CIC SUSTAINABLE  
CONSTRUCTION AWARD**  
建造業議會可持續建築大獎

# Organisations Category

## Project Owner (Public Sector)

### Silver Award

**Hong Kong Housing Authority,**  
the Government of the Hong Kong Special Administrative Region, China



### Public Housing Development at Tung Chung Area 99

The Hong Kong Housing Authority's (HKHA) public housing development at Tung Chung Area 99 (TC99) pioneers the use of sustainable Modular Integrated Construction (MiC) technology. Early findings suggest MiC can dramatically reduce waste and pollution, while vastly conserving resources and manpower. Serving as a research hub for technologies like MiC 2.0, MiMEP, and High Productivity Construction (HPC), TC99 contributes to their future mass application and the shaping of industry standards.



### Sustainable Best Practice 1

TC99 pioneers the use of MiC, which is a resource-efficient method that minimises pollution. The project thoroughly embodies carbon reduction strategies, including carbon emission estimates and the use of green building materials, to attain sustainable construction. By leveraging various innovations and technologies, TC99 supports low-carbon initiatives, underscoring the project's commitment to environmental-friendly practices and reinforcing its position as a leading model of sustainable development.

### Sustainable Best Practice 2

Emphasising public engagement, stakeholders participate in discussions concerning HKHA's adoption of sustainable MiC at TC99. Serving as a research base for MiC 1.0, MiC 2.0, MiMEP, and High Productivity Construction (HPC), TC99 fosters advancements in construction technology. By doing so, TC99 plays a crucial role in the potential future mass application of these innovative techniques, contributing to the evolution of sustainable construction practices.



### Sustainable Best Practice 3

The project dashboard at TC99 utilises Digital Twins, integrating Building Information Modelling (BIM) and Geographic Information Systems (GIS), and Internet of Things (IoT) to provide a smart site safety system and aid its evolution. Additionally, 5D BIM is employed for meticulous planning. Reality capture technologies, such as 3D laser scanning, improve work planning through automatic BIM modelling of the as-built environment. Construction robotics are also utilised, reducing exposure to risky trades and enhancing overall worksite safety.