

## Smart Estate Platform (SEP) for an Urban Precinct in Thailand



Thailand's growing urban areas offer great opportunities, but the rising population requires better public services and infrastructure maintenance. Global challenges like environmental crises strain local governments financially. Thai cities face limitations and depend on higher-level government funding, resulting in infrastructure backlogs. To address this, they're seeking innovative financing solutions, encouraging investments from public and private sources for development, particularly in the area of smart solutions. (The World Bank, May 2023)

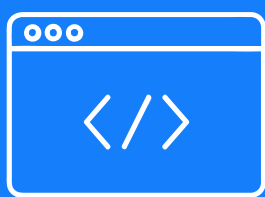
### OVERVIEW

The **Smart Estate Platform** project aims to create a modern, sustainable and integrated precinct that encompasses a diverse range of functions, including luxury living with high-rise residential towers, Grade-A commercial towers, as well as retail, five-star hospitality, and recreational spaces. It will revolutionise the experience and operations within this precinct's ecosystem and its surrounding community. By integrating cutting-edge technologies, manpower optimisation, utility management, and enhanced user experiences, it strives to elevate the precinct's experience and management to a premium level, providing convenience, improved security, sustainability initiatives, enhanced health and well-being, and overall operational cost savings.

### WHAT DIFFERENTIATES IVIVA?



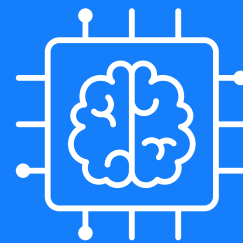
Flexibility



No code  
platform



Low code business  
process digitalisation  
capabilities



AI/ML  
availability



Open Digital  
Twin

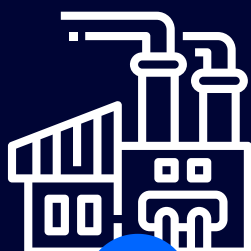
These key features allow users to enhance, modify and add workflows on their own, thus reducing costs, time and dependency on the service provider.

## KEY STATISTICS



**Total area**

Approx. 3.5 million SQM



**1**

Central Utility Plant



**3**

Office Buildings



**3**

Retail Buildings



**3**

Hotels



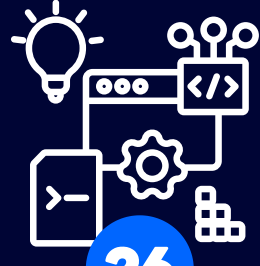
**2**

Residential Buildings



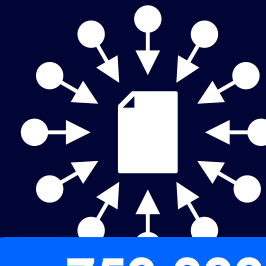
**1**

Convention Centre



**26**

Systems Integrated



**750,000**

Estimated Real Time Input/Output Points



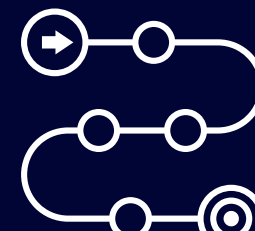
**60,000**

Occupants



**200,000**

Daily Visitors



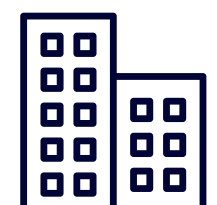
**600+**

Business Processes Automated

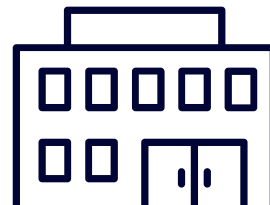
## KEY BUSINESS AREAS DIGITALISED



Tenant Management



Property Management



Facility Management



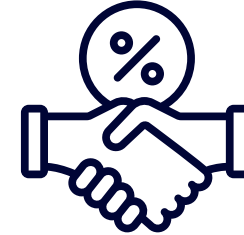
Health & Safety Management



Sustainability Management



Asset Management



Commissioning Management

## KEY OBJECTIVES



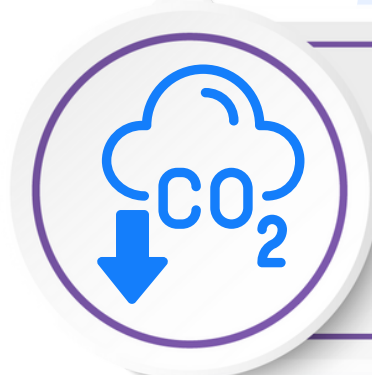
### Enhance Tenant Satisfaction

*Tenant experience, productivity, security and convenience*



### Reduce Operating Costs

*Via automation, process digitalisation/ reengineering, predictive maintenance*



### Move Towards Low Carbon Economy

*Sustainability reporting, energy reduction, carbon footprint reduction*



### Future-proof the Investment

*Composable digital service creation platform*

## SOLUTION



### Smart Estate Platform powered by iviva suite of applications

Integrates building systems, business systems and people, eliminating operational silos, promoting collaboration and information exchange while assisting the precinct to meet its core objectives.



### Lucy, iviva's integration platform

Provides integration, business process digitalisation and information visualisation. With its growing list of connectors, systems can be replaced while leaving the remainder of the solution intact. With its low code and no code capabilities, development of digital services are made easy.

# APPLICATIONS AND INTEGRATIONS



## Back Office Applications

- Lucy Integration Platform
- Integrated Building Management System
- Asset Management
- Maintenance Management (Work Request, Corrective Work Order and Planned Preventive Maintenance)
- Utility Management System
- Automated Fault Detection and Diagnostics
- Root Cause Analysis
- Commissioning Management
- Sensor Emulation
- Sensor Anomaly Detection
- Digital Twin Creation
- Incident Management
- Alarms and Alert Management

## Guest Services

- Tenant Coordination
- Directory
- Local Weather Dashboard
- Local Traffic Dashboard
- Service Request Management



## Dashboards

- 3D Visualisation
- Internal Air Quality Map
- People Movement Map
- Command and Control Centre Dashboard

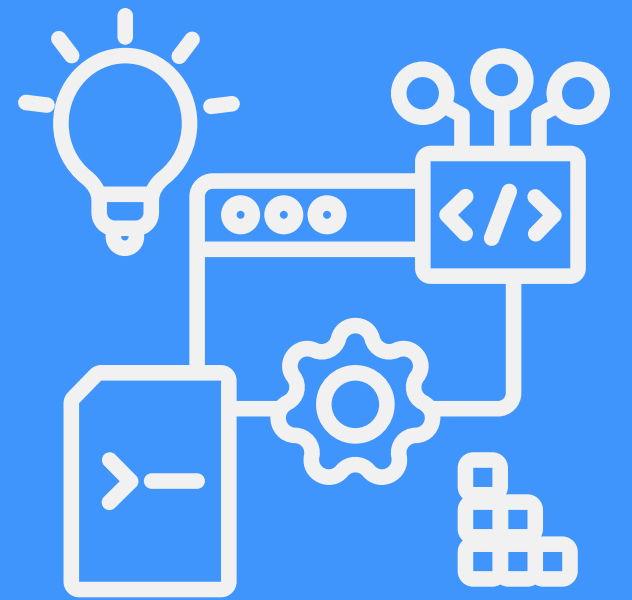
## Front Office Applications

- Visitor Management
- Guest Booking



# INTEGRATION SYSTEM SCOPE

- District Command Centre (integration with Video Controller/ Security Operations Centre)
- Building Management System
- Mobile App
- Public Safety and Security System
- CCTV and Video Management System
- Artificial Intelligence System
- Data Warehouse and Data Lake
- Enterprise Resource Planning and Accounting Systems
- Instant Messenger Systems (Line, WhatsApp, WeChat, SMS)
- IoT Platform and Sensors
- Loading and Delivery Management System
- Mapping and Wayfinding System
- Digital Twin
- Central Utility Plant Systems
- Lighting Control
- ICT and Data Centre Systems
- Smart Home Systems
- Digital Signage
- Vertical Transportation Systems
- Smart Parking System
- Payment Gateway System and Tokenisation System
- Customer Relationship Management System
- Traffic Management
- Waste Management



## CERTIFICATIONS AND RATINGS



**WiredScore  
Platinum**  
(certified)

**SmartScore**

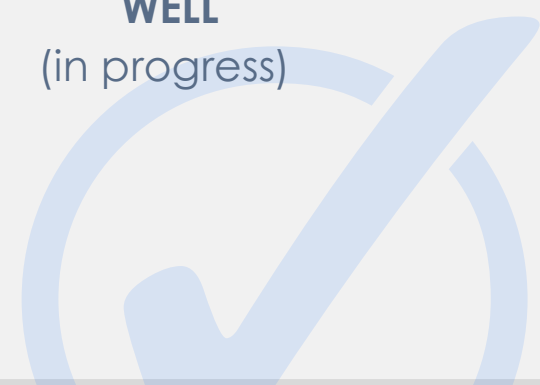
**SmartScore  
Platinum**  
(in progress)



**LEED**  
(in progress)



**WELL**  
(in progress)



## EXPECTED RESULTS AND BENEFITS

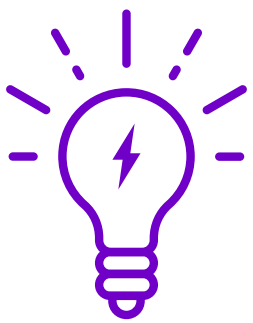
To provide the precinct with a versatile platform designed for the seamless integration of current and upcoming systems, enabling the efficient development of digital services catered to tenants and beyond.

The digital infrastructure enables connectivity, data analytics, smart services, and enhanced user experiences throughout development, providing the foundation for advanced technological features, energy management, security, and future scalability within the precinct.

- ✓ Reduce energy and manpower
- ✓ Enhance reliability
- ✓ Improve resilience and performance
- ✓ Foster sustainability



### DID YOU KNOW?



According to Statista's market insights on technology, the Smart Cities market in Southeast Asia is projected to grow by 13.02% (2023-2028), resulting in a market volume of US\$9.21bn in 2028.

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