



Your AI City Platform

Unified foresight
through intelligent
data aggregation and
digital twins

A vertical graphic on the left side of the page. It features a blue wireframe cityscape with buildings and a glowing horizon. Below the cityscape, there are curved lines and a pattern of binary code (0s and 1s). The year '2025' is written in large white digits at the bottom.

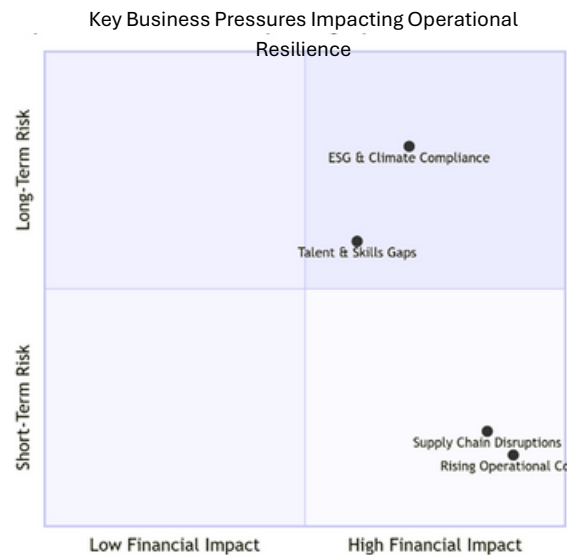
2025

Fragmented systems are crippling city management

Can you see the threats before they cascade?

Today's smart cities are defined by interconnected pressures that threaten service delivery, financial planning, and citizen well-being.

Infrastructure failures, escalating costs, climate mandates, and resource shortages converge to create a risk landscape that can only be navigated with predictive, integrated intelligence.



1

Soaring adaptation costs

Cities face immense expenses for flood defenses, with **Singapore projecting over USD 72B to combat rising seas.**

2

Carbon emissions risk stranded assets

Tenants with corporate net-zero goals increasingly demand energy-efficient spaces. **Buildings with high operational carbon face vacancy risk.**

3

Sustainability is a mandate, not a choice

85% of global citizens demand sustainable cities.

In Singapore, the Green Plan 2030 mandates 80% of buildings be green by 2030, requiring robust data for compliance.

4

Operational costs are spiraling

Projected to increase by 15 to 20% by 2028 for commercial buildings in Singapore. This increase is driven by energy prices, maintenance, and climate-related repairs, threatening fiscal sustainability.

Three critical threats cities cannot tackle with old tools

Why operating in the dark is costing you more than you think.

Business Risk	Mitigation
<ul style="list-style-type: none">● Inefficient resource use: Inefficient energy, water, and emissions management raises costs and ESG risks. Fragmented data prevents accountability. <p>75% of firms are unprepared for ESG requirements. Up to 50% lack ESG integration.</p>	<p>Our data aggregation engine consolidates ESG and operational data.</p> <p>Digital twins model flows in real time to optimise usage and reporting.</p>
<ul style="list-style-type: none">● Flawed planning and deployment: Static models and siloed data leave projects exposed to shocks, leading to overruns and misaligned investments. <p>Global 2000 firms lose USD 400B annually from downtime and poor planning.</p>	<p>Our unified platform enables integrated data analysis.</p> <p>Digital twins simulate scenarios to optimise plans before execution.</p>
<ul style="list-style-type: none">● Catastrophic asset failure: Interdependent infrastructure failures cause downtime that cripples services and trust. Legacy systems cannot predict cascading failures. <p>90% of large firms lose over USD 300k per hour of downtime.</p>	<p>Digital twin technology enables predictive maintenance and sensor integration to enable real-time condition monitoring to minimise critical asset down time.</p>

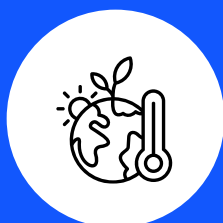
A smart city platform for smarter investment decisions

Smart cities generate vast amounts of data, but without integration it becomes noise rather than intelligence.

Our data engine aggregates siloed datasets from IoT devices, sensors, and enterprise systems into a single source of truth.

The digital twin visualiser then transforms this data into interactive and predictive models of city operations.

Together, they shift risk management from reactive to predictive, giving decision-makers a live command centre to anticipate and mitigate disruptions.



Climate and environmental resilience

Track and manage both embodied and operational carbon across the asset lifecycle, from design and construction to daily operations and end-of-life.



Incident response and security planning

Detect and respond faster to building performance and service gaps through real time monitoring and future state scenario planning.



Total asset lifecycle cost planning

Lifecycle simulations incorporate maintenance intervals, utility profiling and asset replacement cycles to make better investment decisions.

Our platform delivers unified data, while the digital twin provides foresight, enabling cities to move from reactive to predictive management.

How an institutional campus in Singapore improved productivity by 40%

The Challenge

When a city's critical systems can't communicate, the impact is stark.

On a sprawling university campus, this disconnect leads directly to operational delays, security gaps and unnecessary energy costs.

The Solution

Data Aggregation Engine

Integrated data from multiple data streams into a single source of truth.

Digital Twin Visualiser

Created a dynamic, real-time model of the entire portfolio of buildings.



Tangible results since January 2025:



improvement in fault response time (urgent)



improvement in fault response time (non-urgent)



reduction in emergency dispatch times



improvement in operator productivity

Why it worked:

- **Centralised Platform:** Unifies security, emergency and facilities systems into one smart platform.
- **Real-Time Operations:** Enables live oversight and rapid incident response across the campus.
- **3D Digital Twin:** Features an interactive model for immersive visualisation and virtual patrols.
- **Data-Driven Excellence:** Empowers decision-making with integrated analytics.



Your next step: Building a more resilient asset

Turning uncertainty into advantage with the data aggregation engine and digital twins

Discuss a tailored strategy

Discover how our AI city platform, powered by intelligent data aggregation and digital twins, can transform your operations.

See proof in action

Explore case studies where cities cut downtime, improved resilience and achieved sustainability goals.

CONNECT DIRECTLY WITH OUR DIGITAL TECHNOLOGY LEADS:

Say Leng TEO

Executive Director, Digital Technology

sayleng.teo@surbanajurong.com

Greg PALMER

Senior Director, Facilities Management + Asset Management

greg.palmer@smec.com