

Digital and Sustainability Framework for SMART CITIES

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Head of Digital Management Office

Senior Director, Special Project, GCEO Office

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Our Value Proposition : ISO 37100

We want to promote Happy Citizens

Surbana Jurong leverages on our incumbent knowledge, operational expertise, suite of data analytics expertise and tools to derive actionable insights from the data collected from our years of service to the Town Councils.

For Town Councils to have Better Economics and Cost Savings

Surbana Jurong has a large customer pool base to achieve economies of scale and cost savings for our clients

To be Sustainable, Lower Carbon

Surbana Jurong has helped many clients achieve Green Mark Certifications including the first Net Zero Energy Building in Singapore

Actionable Feedback



Saving in Utilities



Higher Safety in Spaces



Higher Delight Factor



Greater Sustainability



AGENDA

1. We have a Platform called 24K
2. We can perform Real Time Monitoring on Assets
3. We can offer an Integrated Dashboard System in an Integrated Command and Operation Centre
4. We have a Feedback Management System to promote Happy Citizens
5. We use Data Science and Data Analytics
6. We bring all these together in an Integrated Estate Management (IEMS) Platform to increase productivity
7. We produce guidelines to assist in Design and Management

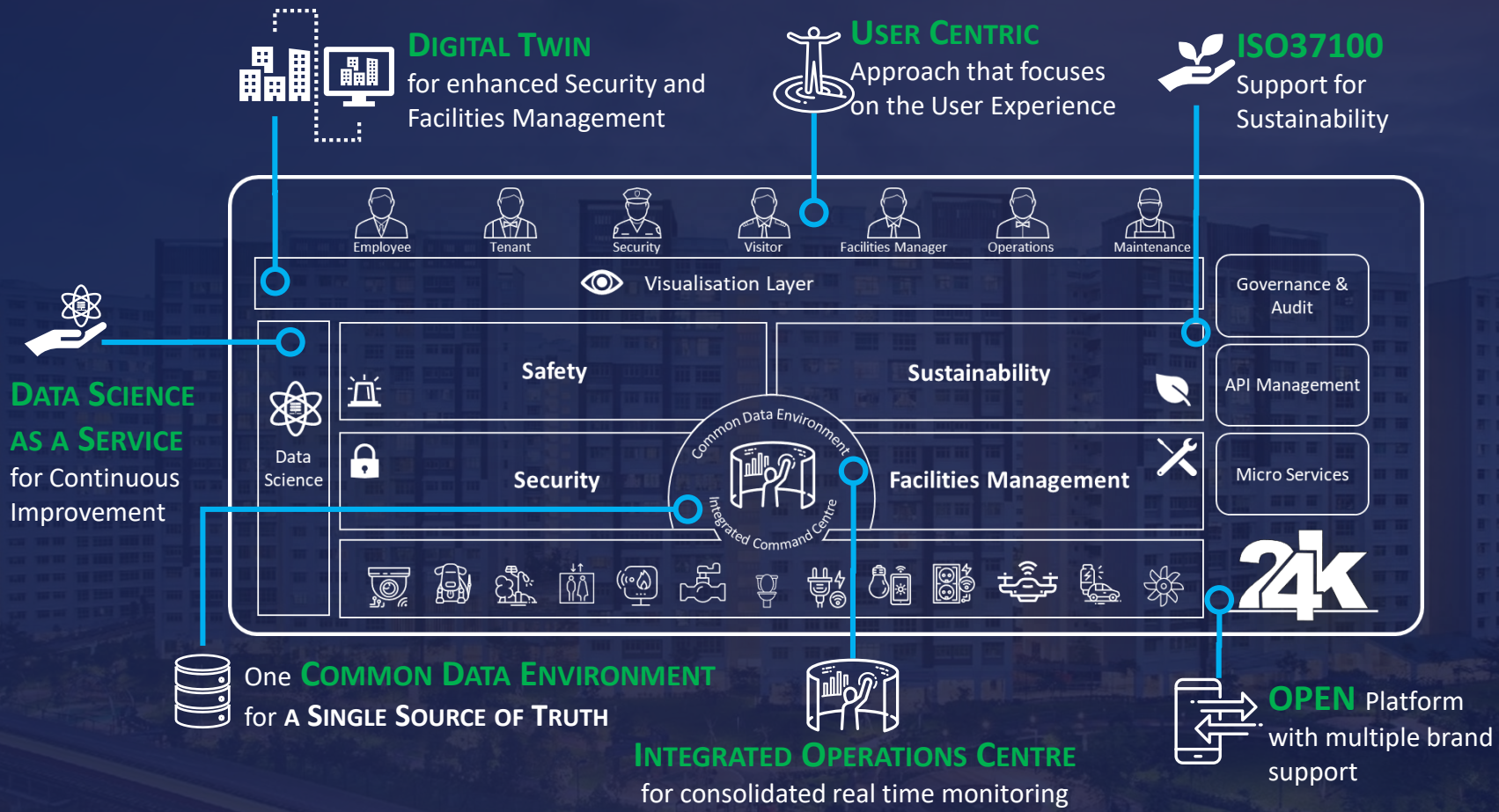
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We want to provide a Platform for Smart TC : 24K Integrated Platform

Enabling Technology to Optimise Resources





24K Integrates with IOT Devices

Open and Modular Platform that can support multiple assets. Scalable from a single building to an entire city



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Cost Savings via Economies of Scale

We Provide Real Time Asset Monitoring System

We have connected to



So far...

Challenges / Needs

- How to monitor and maintain different assets with limited resources
- Manage assets in multiple buildings over a large area
- Response promptly to alerts and feedback
- **Assets are operating 24/7**

Considerations

- Network connectivity
- Effectivity installation point
- Work Order Process

Benefits

- 24/7 real time monitoring for improved situational awareness
- Automated Workflow for swift response
- Open Platform that supports multi brand assets
- Consolidated Dashboard for effective monitoring
- Mobile Support for the on the ground team

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Service Application
Software Platform
Data Management
Data Analysis
Device Management



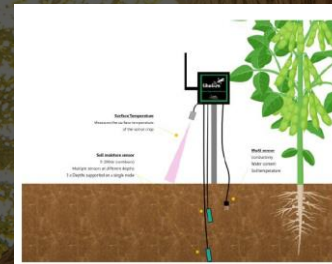
We Provide Real Time monitoring of Trees and Plants



Tree Tilt Sensors



Smart Irrigation



Soil Moisture Sensors

Ensure greenery are well taken care

Challenges / Needs

- To maintain trees and plants as part of heritage, and education avenue in Singapore
- Maintain as a habitat for birds
- How to monitor and maintain the greenery without causing manpower constraint

Considerations

- Network connectivity
- Effectivity installation point

Benefits

- Part of Singapore's sustainability effort
- Better resource deployment
- Improved productivity via data backed maintenance planning

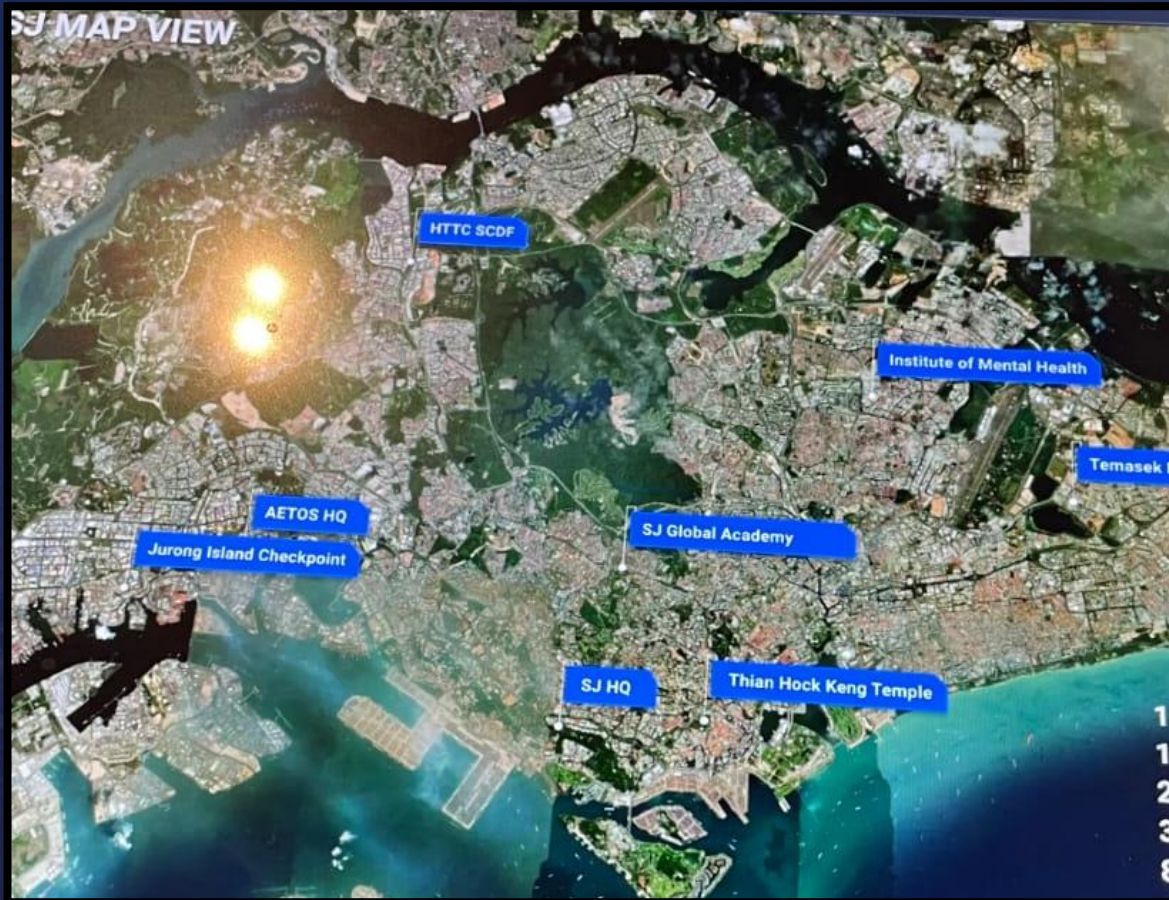
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Integrated Operations Centre

The purpose for an Integrated Operations Centre (IOC) is to identify what is happening in the development, its people and assets at a glance, in order to provide real-time visibility and make an intelligent informed data-led decision.



- Real time information
- Data for users
- Effective collaboration
- Planning and Emergency

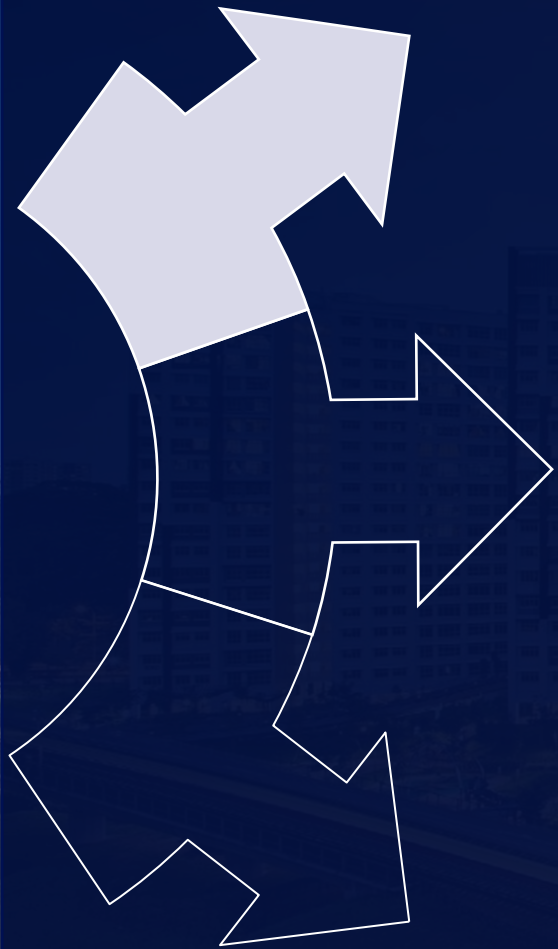


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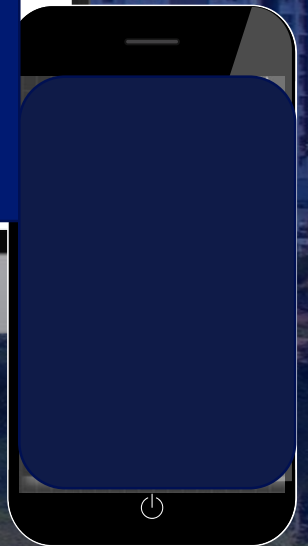
How Happy are the Citizens?

Happy Citizens



An interactive dashboard to provide feedback insights and give better understand of the situation on the ground for MPS and Block Visits

We collect feed back from residences and provide analysis on their feedback and complaints and monitor how fast their feedback and complaints are addressed



Data Backed Problem Solving

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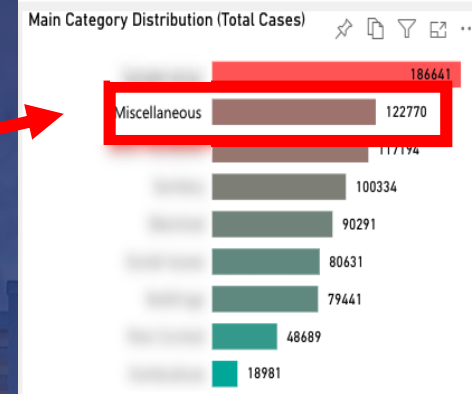
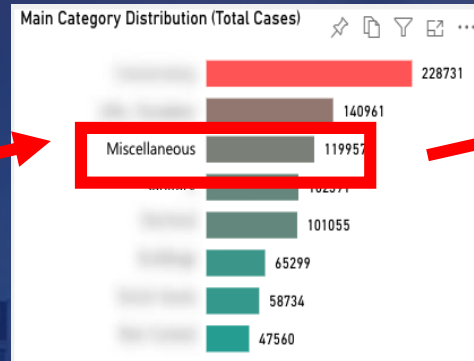
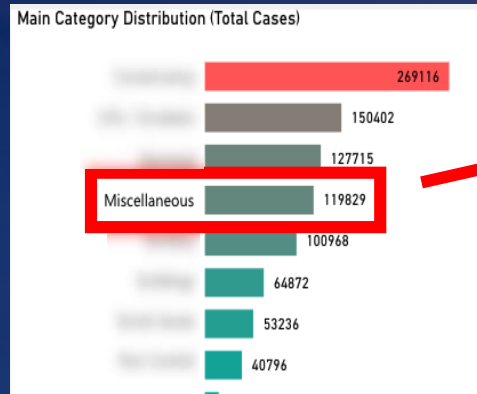
Improving Response time : Reducing misclassification of Residents' complaints with AI

5

2018

2019

2020



Category * Sub Category *

Defect Description * [Get Suggested Category](#)

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[PC/BIRD](#) [CV/CVOTH](#)

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We have An Integrated Management System



Drone
Inspection



Logistics
Network



Smart Carpark



Landscape
Monitoring



Intelligent Building
Management



Irrigation
Sensor



Feedback
Management



Vendor
Management



Contract
Management

A Smart Estate Platform concept to
collect data via a grid of sensors for
analysis for effective Estate Management

Challenges / Needs

- Monitor and manage all the various systems within the estate
- Manage assets in multiple buildings over a large area
- Response promptly to alerts and feedback
- Assets are operating 24/7

Considerations

- Network connectivity
- Effectivity installation point
- Work Order Process

Benefits

- 24/7 real time monitoring for improved situational awareness
- Consolidated Dashboard for effective monitoring
- Mobile Support for the on the ground team
- Reduction in paperwork
- Reduction in resident's complaints
- Reduction in wastage
- Reduction in labour cost
- Reduction in technician overtime claims
- Reduction in delay of completion of Work Orders
- Improvement in Contractors' response time and job completion
- Increase in labour optimisation

An Integrated Estate Management System (IEMS™) that combines the essential & digital operations of estate management into a single platform

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Producing Green Guidelines

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*Producing Green Fit Out,
Guidelines and Design Strategies
For Operation Management and Audits*

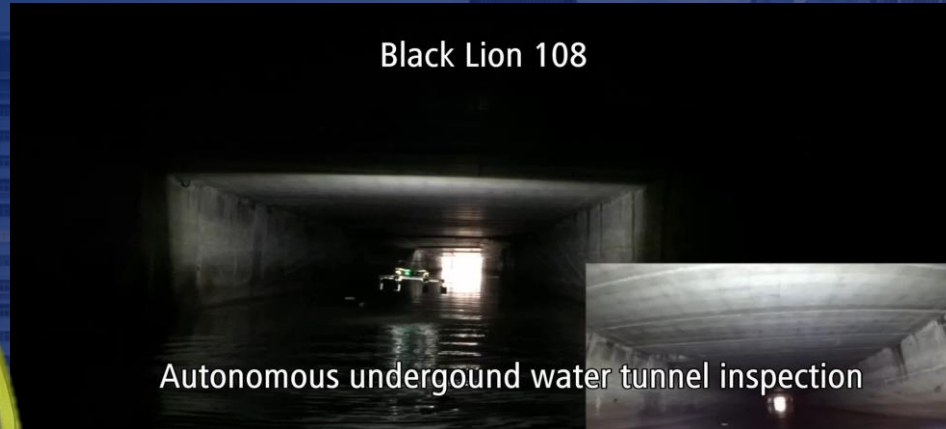




AI use-case: Façade Maintenance ; Use of Digital Tools to increase productivity



Black Lion 108



Conclusion

Our Value Proposition

Building a Sustainable , Smart and Resilient Nation Together

Happy Citizens

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Enabled on



Potential of Digital Twinning Mega Projects



[Video Link](#)

Building a Sustainable , Smart and Resilient Nation Together

on  Integrated Platform

 **SURBANA
JURONG**