# Automated Facilities Management Systems - The future of campus operations at The University of Melbourne.

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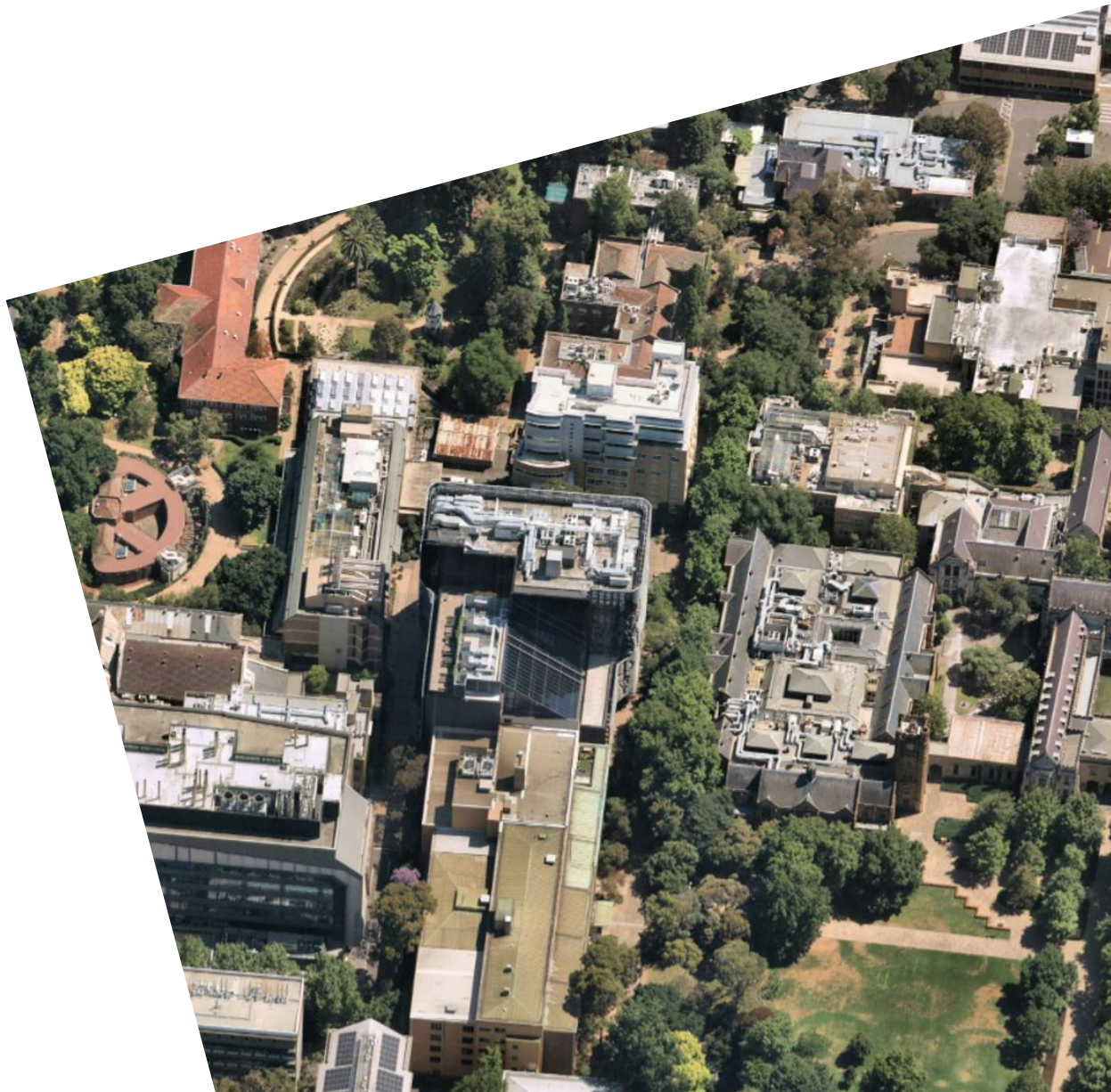


# FOUR STAGES OF DIGITAL TRANSFORMATION

## TRADITIONAL

Manual + Ad-hoc

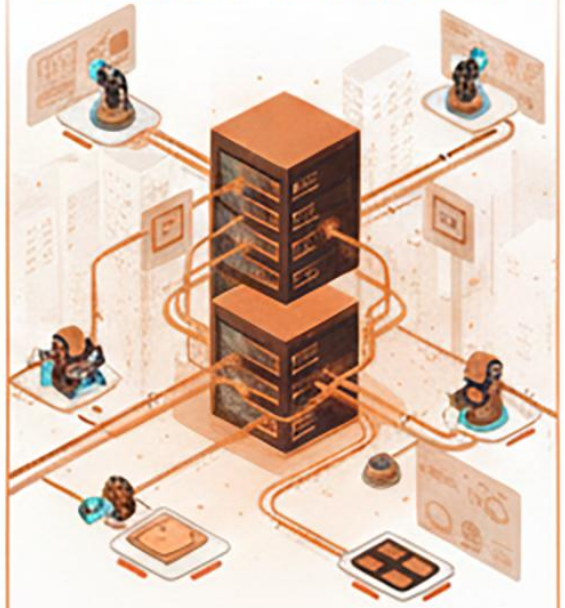
Paper and PDF workflows.
Lack of systems integration.
No central asset system.

## DIGITISATION + FOUNDATION

Centralisation + Structured Data

Centralise digital assets.
Structure and governance.
Findable, foundational.

## OPTIMISATION + INTEROPERABILITY



Optimisation + Integration

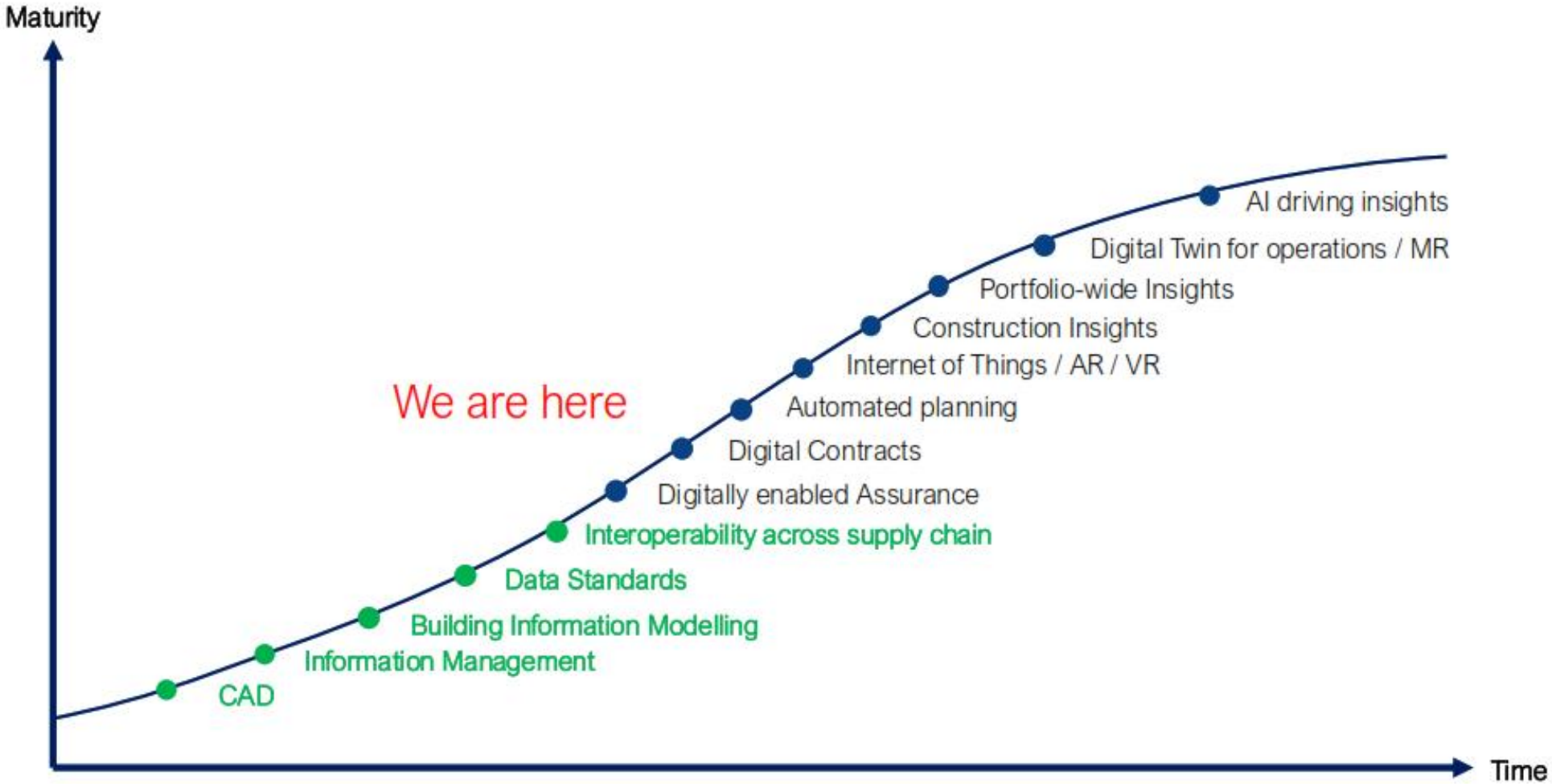
Digital assets integrated into business workflows.
Systems integration.
Maximising efficiency and asset value.

## DIGITAL TWIN

Predictive + Converged

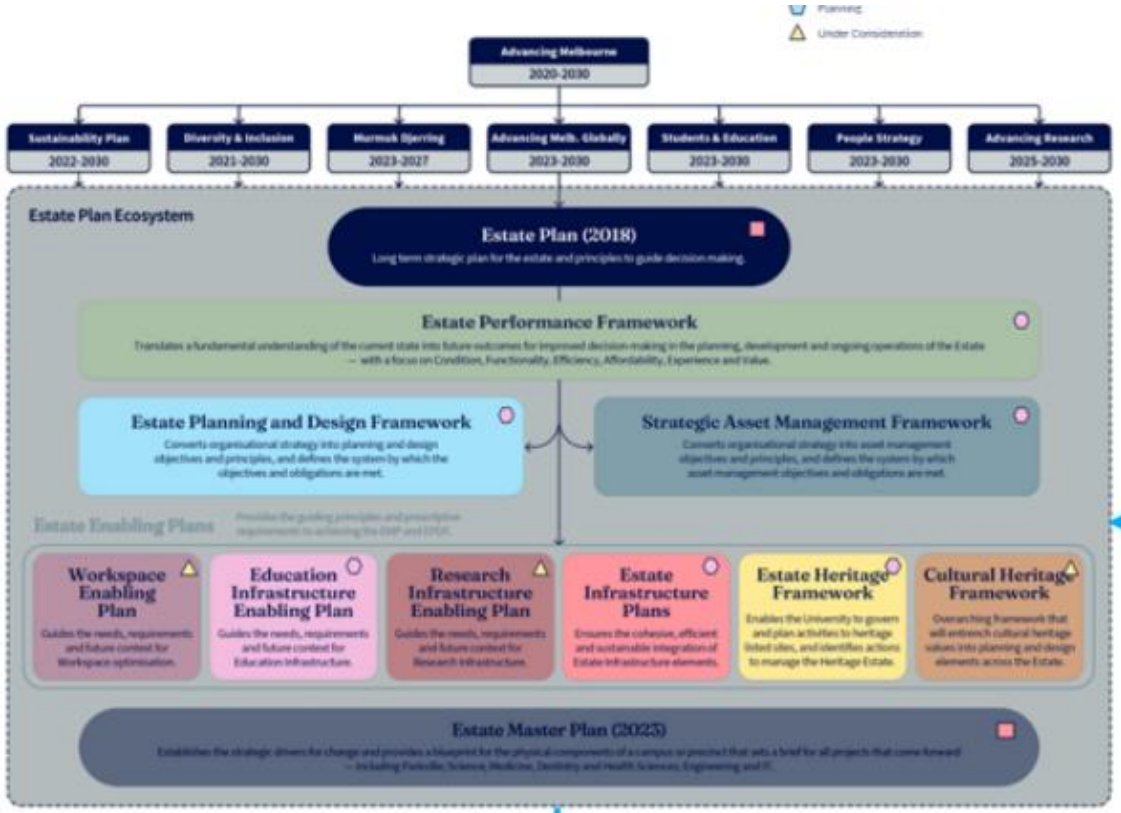
Seamless real-time replica of physical assets and operations.
Simulation, analysis and control.

# 95% of our projects are small refurbishments of a few rooms without ‘BIM’, ‘digital twins’

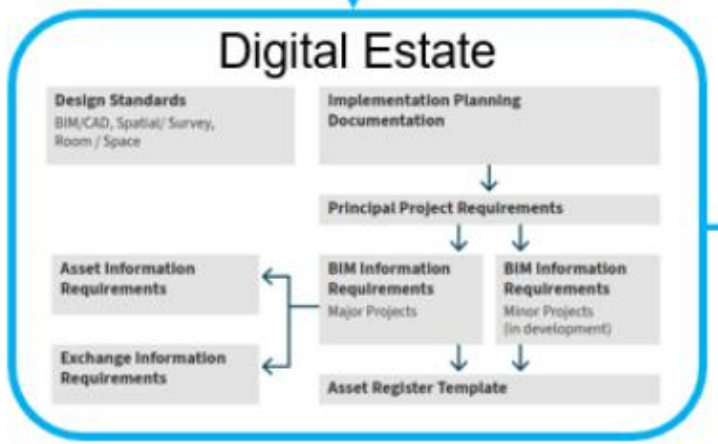


# Aligned Ecosystem: Strategy & Data Flow

The Digital Estate program compliments the University's strategies, enabling plans and frameworks by supporting Digital Estate information management practices aligned to industry standards.




- Estate Operations & Maintenance
- Utilisation
- Digital & Physical Wayfinding
- Teaching Learning & Research Community Engagement/events
- Reporting/Compliance/Legal/Risk/FOI
- TEFMA/Go9 Benchmarking
- Space charge annual cycle

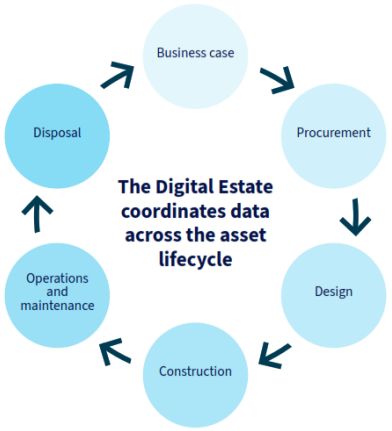



Structured Data Flow

# Enhancing **estate experiences**

## Digital Estate Vision

Our vision is to cultivate a unified ecosystem where technology and data seamlessly converge to augment the functionality, efficiency, and accessibility of our campus environment.




**Our Digital Estate will integrate physical assets with digital technologies to create a connected estate for our community.**

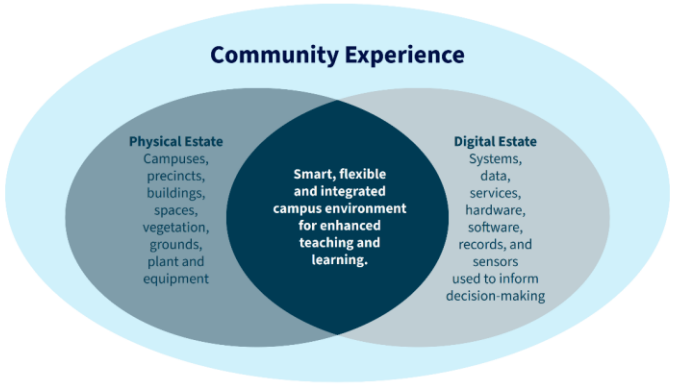
Our Digital Estate revolutionises the traditional concept of a digital library into a new paradigm: a flexible and unified ecosystem that integrates systems, services, and information into an ecosystem of estate information.

This modernisation of estate data management will augment our built environment to drive sustainable innovation, optimise asset management, govern regulatory compliance for estate record keeping and uphold our commitment to a vibrant, autonomous and forward-thinking academic community.

The characterisation of success for the Digital Estate is an integrated 'source of truth' digital ecosystem underpinned by robust data standards supporting estate data-driven decisions and integrated outcomes. This translates to 'digital-by-default' practices that are no longer a consideration, but the new normal.

Underscoring the Digital Estate is a focus on delivering the optimal value of investment directly to the community that consumes it. By providing a rigorous workflow of how digitisation is onboarded at the front end to realise benefits downstream, we can then interface the University's master planning activities with broader infrastructure projects and our wider commitment to being climate-positive by 2030.

▼ The Digital Estate will indistinguishably fuse our physical environments and the digital assets that underpin them into an integrated ecosystem that delivers best outcomes for our communities, our environments and our pedagogy.




# Aligned with exemplary practice

Our Digital Estate program is aligned to international benchmarking practices adopted by industry and government. We are applying a series of standards, frameworks, and guidelines to help provide structure and consistency to our approaches, both internally and with our external supply chain partners.

Importantly, aligned to our vision and outcomes-focused approach, we are implementing a pragmatic approach, appropriate to the size and complexity of our portfolio, that avoids over specification or 'gold-plating'.

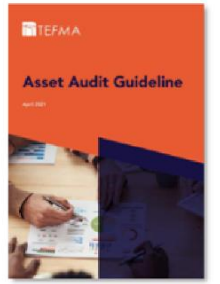
— **Internationally**, ISO (International Organisation for Standardisation) establishes best practice standards and benchmarks for estate asset and building information management including the ISO-19650 series for information management and the ISO-55000 series for asset management. Applying relevant aspects of these standards to our portfolio means we are raising our foundational consistency and creating an approach that allows for continual maturity uplift.

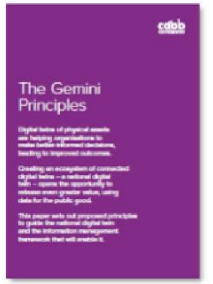
— **Federally**, Infrastructure Australia has set a digital-by-default agenda and recommendations to unlock productivity and efficiency gains across Australia. We are aligned with this vision and exploring the initiatives and mechanisms to best apply this to our scale and context.

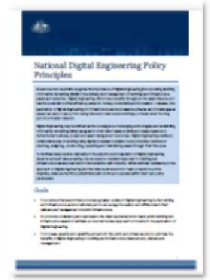
— **In the state of Victoria**, the Victorian Digital Asset Strategy (VDAS) and the Asset Management Accountability Framework (AMAF) set mandatory requirements and general guidance for digitising project delivery and asset management.

ISO International Organization for Standardization

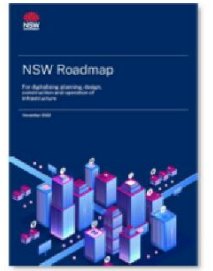
VBIS™



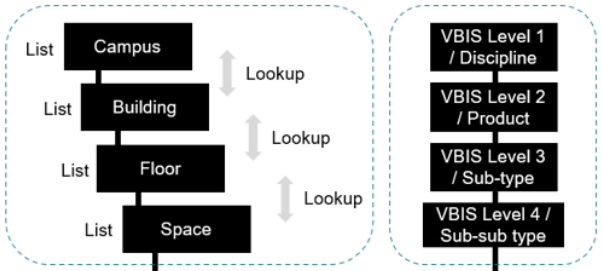





## Electrical Power and Lighting asset subclasses

| ASSET SUBCLASS | VBIS CODES | MAINT / ESM / COMP | NOTES |
|---|---|---|---|
| Automatic Doors (sliding, swing, revolving) | ST-DNR-Au<br>ST-DNR-Pa-Mo<br>ST-DNR-Re-Mo | yes | |
| Electrical Lighting | EL-Li | | |
| Lighting Controls | EL-Li-Con | | |
| Main Switchboards - MSB | EP-SB-MSB | | |
| Power Factor Correction | EP-PFC | yes | |
| Harmonic Filters | EP-SG-HF | | |
| Distribution Boards | EP-SB | | |
| Generators - Engine | EP-Ge-DRE<br>Ep-Ge-GRE<br>Ep-Ge-GT | yes | |
| Generators – Fuel Systems | Ep-Ge-BFT<br>Ep-Ge-FTP | yes | |
| Generators – Load Bank | Code TBC | yes | |
| Programmable Logic Controllers | EP-PLC | yes | |
| RCDs | EP-SG-RCD | yes | |
| Light Poles and Lamps | EL-LP | yes | |
| Lightning Protection | EP-LP | | |
| Emergency and Exit Lighting | EL-EL-Ex | yes | |
| Solar Panels (Photo-voltaic (PV) panels) | EP-SPS | | |
| Battery Systems | EP-BS | tbc | |
| Roller Doors/Shutters | ST-DNR-Ro<br>ST-DNR-Sh | yes | |

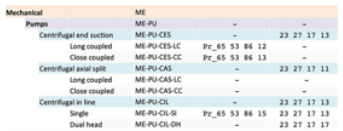
# Locating and specifying university assets







VBIS

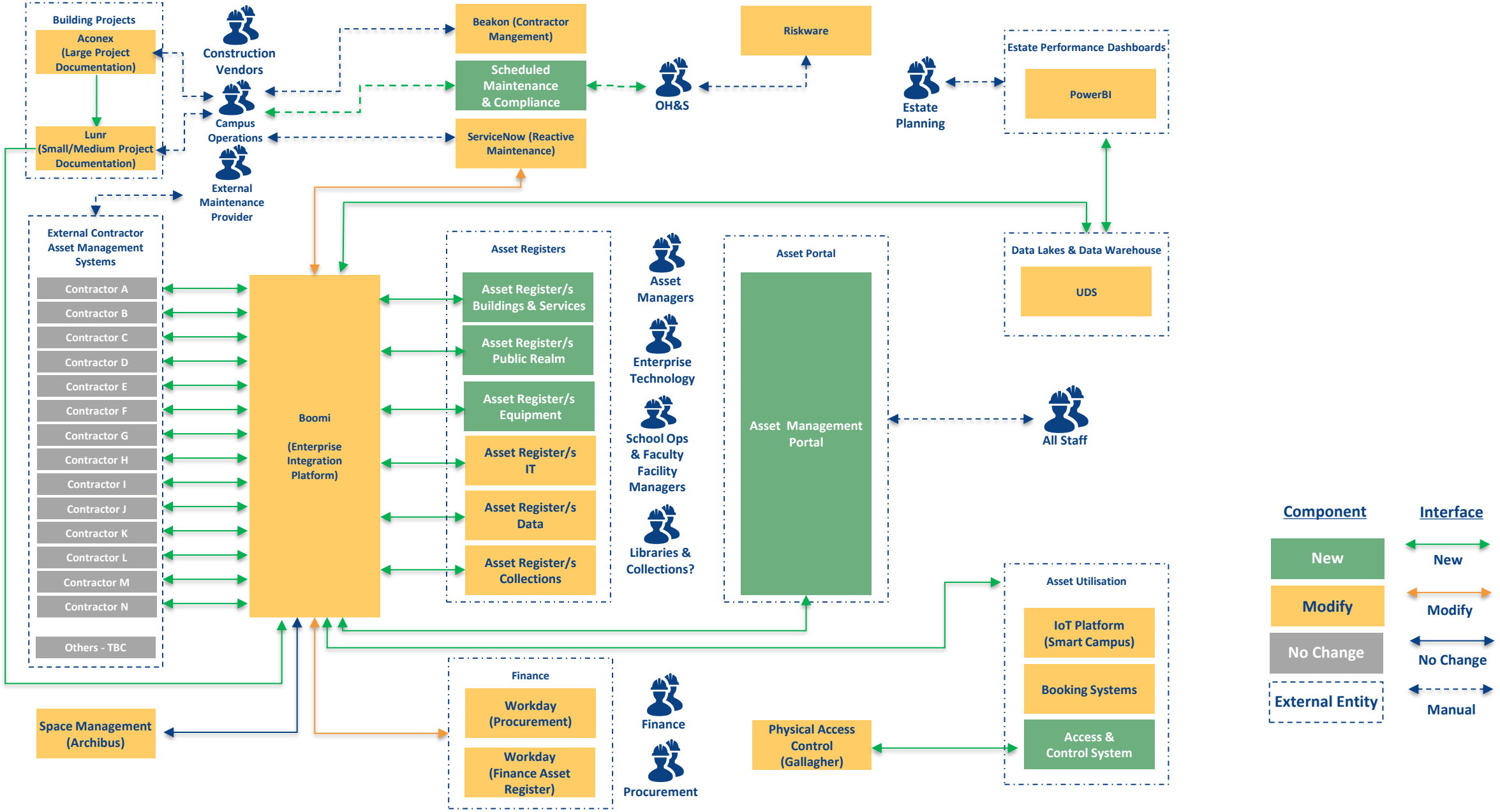


| Location Attributes | Classification Attributes | Common Attributes | Asset Specific Attributes |
|---|---|---|---|
| Asset 1 | Values | Values | Values | Values |
| Asset n | Values | Values | Values | Values |

## Asset Lifecycle Data Dictionary

| Grouping | Attribute | Required | Field type | Originator | Example | Comments |
|---|---|---|---|---|---|---|
| BASELINE: APPLIES TO ALL ASSETS CLASSES | | | | | | |
| Identify | **Asset Name** | Required | Text | Supplier | AHU01 | Unique name of a maintainable asset captured individually, or non-unique name for non-maintainable or replaceable assets. Should match same UoM naming conventions may apply - e.g. Switchboards |
| | **Asset ID** | Maintainable / ESM / Compliance | Text | UoM | 125874 | ID number uniquely identifying the asset, generated by UoM if new. ASSET ID can be the same as the BARCODE |
| | **System** | Optional | Text | Supplier | AC-03-W | Parent system to which the asset belongs, as defined by existing or proposed project documentation. For example:<br>An RCD would use the Asset ID of its parent distribution board.<br>A Distribution Board will use the Asset ID of the Main Switch Board it gets it supply from.<br>Water Treatment and Water Tower would be a cross reference |
| | **Barcode** | Maintainable / ESM / Compliance | Text | UoM | 125874 | Barcode number provided by UoM for major plant and equipment. Refer Asset Labelling instruction booklet |
| Locate | **Room Label** | Maintainable / ESM / Compliance | Text | Supplier Validated by UoM | G09 | A simplified reference to a Room. It is a concatenation of: **Room Label • Room.** |
| | **Room Name** | Maintainable / ESM / Compliance | Text | Supplier Validated by UoM | Learning Space 1 | Room name as proposed by project or as existing. |
| | **Longitude** | Optional | Real Number | Supplier | 144.946457 | To locate external assets for GIS platform. |
| | **Latitude** | Optional | Real Number | Supplier | -37.840935 | To locate external assets for GIS platform. |
| | Location Code (Room) | *Autogenerated / prefilled in spatial data workshee* | Text | Supplier Validated by UoM | **133;G01** | The main reference used to identify the room to which the asset belongs. It is a concatenation of: **Building Code • ; • Room Label.** |
| | Room Integration Code | *Autogenerated / prefilled in spatial data workshee* | Text | Supplier Validated by UoM | PAR;133;0;G09 | A reference used in UoM to identify a room consistently across different information management systems. It is a concatenation of: **Campus Code • ; • Building Code • ; • Level Code • ; • Room Label.** |
| | Campus Code | *Autogenerated / prefilled in spatial data workshee* | Text | Supplier Validated by UoM | PAR | Three letter code that identifies the Campus to which the project belongs. |
| | Building Code | *Autogenerated / prefilled in spatial data workshee* | Text | Supplier Validated by UoM | 133 | Number that identifies the building to which the project belongs. For new buildings, this number will be created. |
| | Level Label | *Autogenerated / prefilled in spatial data workshee* | Text | Supplier Validated by UoM | G | Number or letter that indicates a floor level in the project. Used to create the Room Label. |
| | Level Code | *Autogenerated / prefilled in spatial data workshee* | Text | Supplier Validated by UoM | 0 | A corresponding number to the Level Label. Used to vreate the Room Integration Code. |
| | Room Code | *Autogenerated / prefilled in spatial data workshee* | Text | Supplier Validated by UoM | 09 | A number applied to a Room. Used to create the Room Label. |
| Classify | **VBIS Code** | Required | Text | Supplier | ME-AHU-Su-Mo | Classification / tagging syntax code as defined by VBIS. |
| | **VBIS Description** | *Autogenerated* | Text | Supplier | Mechanical, Air Handling Unit, Supply, Modular | Description matching the VBIS Code as defined by VBIS. This is automatically generated when using this workbook. |
| Describe | **Description** | Optional | Text | Supplier | 1600mm x 200mm x 2400mm | A short Description of the asset may include the type and size of the asset or other information. |
| | **Tech Data** | Optional | Text | Supplier | 10kW | Relevant specification of the equipment |
| | **Manufacturer** | Required | Text | Supplier | Modutherm | Asset manufacturer. |
| | **Model** | Required | Text | Supplier | MODU0507H / MZ / V | Asset model number. |
| | **Serial Number** | Maintainable / ESM / Compliance | Text | Supplier | XX-XXXXXXXX-X | Asset serial number. |
| | **Comments** | Optional | Text | Supplier | This is a comment | Any additional information to completely define the equipment or its installation. |
| Warranty | **Install Date** | Maintainable / ESM / Compliance | dd/mm/yyyy | Supplier | 1/09/2024 | Date asset installed or replaced |
| | **DLP End Date** | Maintainable / ESM / Compliance | dd/mm/yyyy | UoM | 19/09/2025 | Date at which the project defects liability period is complete, determined by the project manager |
| | **Expected Life** | Optional | Integer (years) | Supplier | 10 | Expected functional life of the asset in years |
| | **Warranty Start** | Optional | dd/mm/yyyy | Supplier | 18/09/2024 | Date at which warranty starts |
| Installation | **Warranty Expire** | Maintainable / ESM / Compliance | dd/mm/yyyy | Supplier | 19/09/2025 | Date at which warranty ends |
| | **Is Concealed** | Maintainable / ESM / Compliance | Y/N | Supplier | N | The asset will not be visible once the project is complete - i.e. it is installed behind ceiling or wall coverings. |
| | **Room Location** | Optional | Text | Supplier | South wall | Placement within the room (wall, floor, ceiling, above ceiling etc.). |
| | **Supplier** | Optional | Text | Supplier | airdesign.com.au | Business name for asset supplier when applicable. |
| Operations | **ESM** | Required | Yes/No | Supplier | Y | Essential Safety Measures apply to this asset. ESM assets will be identified by the University... |
| | **Compliance** | Required | Yes/No | Supplier | N | Asset requires maintenance to satisfy operational compliance requirements |
| | **Planned Maintenance** | Required | Yes/No | Supplier | Y | Asset requires routine maintenance |
| | **Maintenance Frequency** | Maintainable / ESM / Compliance | Integer (months) | Supplier | 6 | Manufacturer's recommended period for planned maintenance in months |

# AIMS Target State Concept (Draft - WIP)



# Smart Campus: A key enabler

Data collected and analytics curated by the Smart Campus platform are foundational in enabling several key strategic plans at the University of Melbourne

Advancing Melbourne 2020-2030

Sustainability 2030

Estate Master Plan 2030

Smart Campus

Space Use

Energy

Building Management

# Strategic Fit

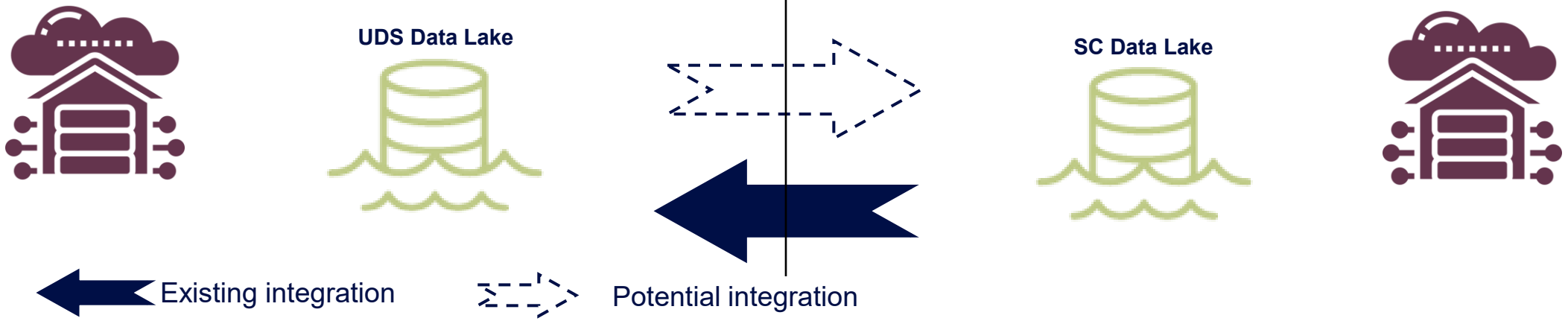
Smart Campus both supports and complements the traditional business intelligence capability at UoM. It delivers a targeted focus on purely operational aspects of the University and its campus.

## University Decision Support (UDS)

Delivers university-wide ***business intelligence*** reporting across research, students, finance and workforce. Data sets resides in DataHub and reporting served via InfoHub (MicroStrategy)

## Smart Campus (SC)

Delivers ***operational intelligence*** supporting facilities management, estate planning and sustainability. Foundation is the gathering and analysis of operational telemetry and its presentation via the CampusNow app.



# Key Focus Areas

Space use efficiencies and optimising our energy footprint dominate the key areas of endeavours within the Smart Campus platform.

## 01. Space Use Efficiency

The use of built space has fundamentally changed post Covid and UoM is no exception.

Additionally, traditional paradigms around how space best supports pedagogical outcomes are shifting.

Consequently, there is sharp focus on how space is planned and used UoM.

Smart Campus answers these questions through the use of sensor technologies

## 02. Energy Footprint

The University's Sustainability 2030 plans lays out a commitment to be 'climate positive' by 2030.

Additionally, energy expenditure is the second largest line item after salary and wages.

Smart Campus enables insights into our energy footprint through the harvesting of various energy demand and generation sources.

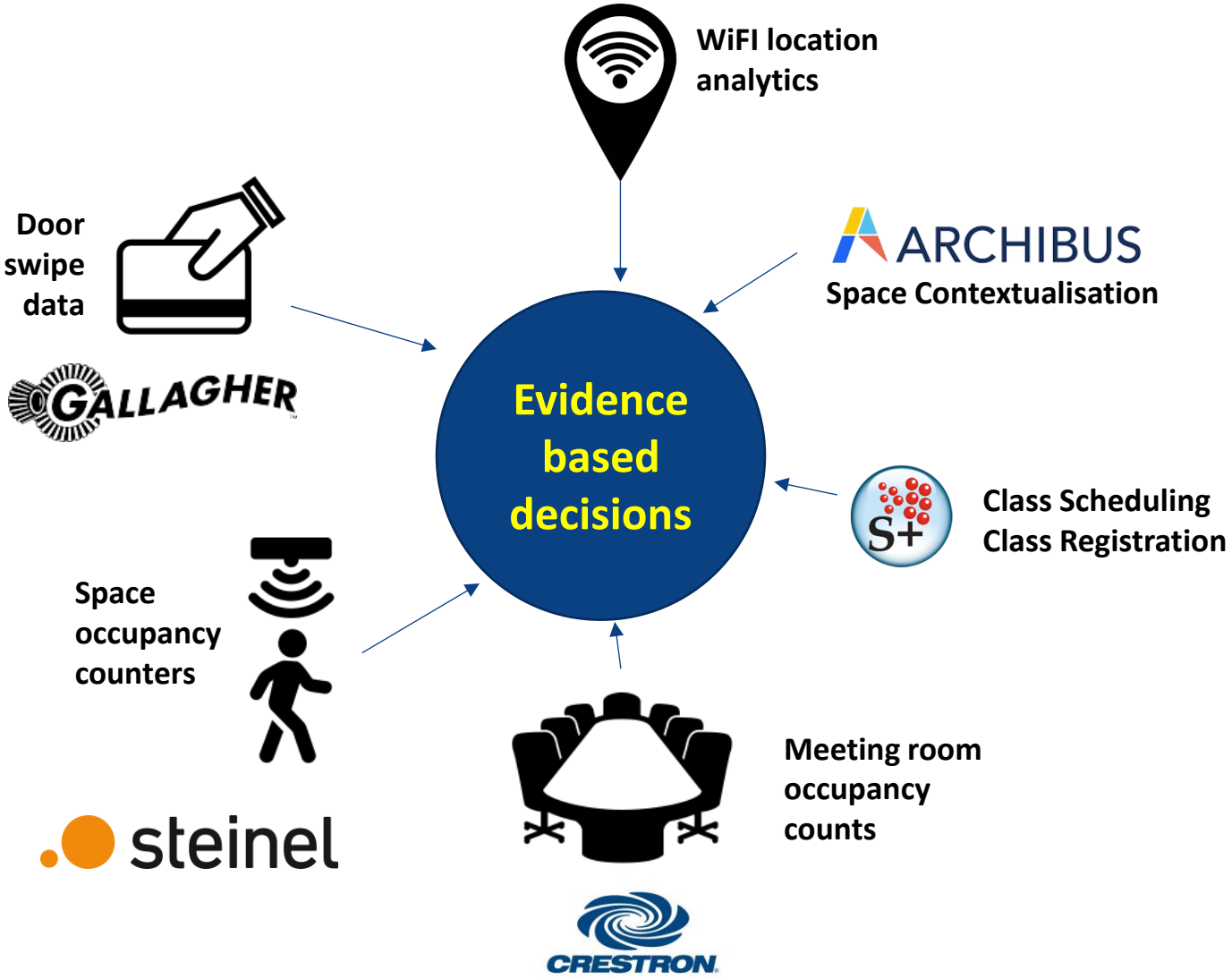
## 03. Campus Experience

Delivering the best outcomes for our students, academic and researchers, is the penultimate reason for us all being here.

We are continuously searching for avenues to apply operational data in the improvement of peoples' experience on our campuses.

In addition, our infrastructure and expertise is leverage by researchers for the acquisition & curation of field data.

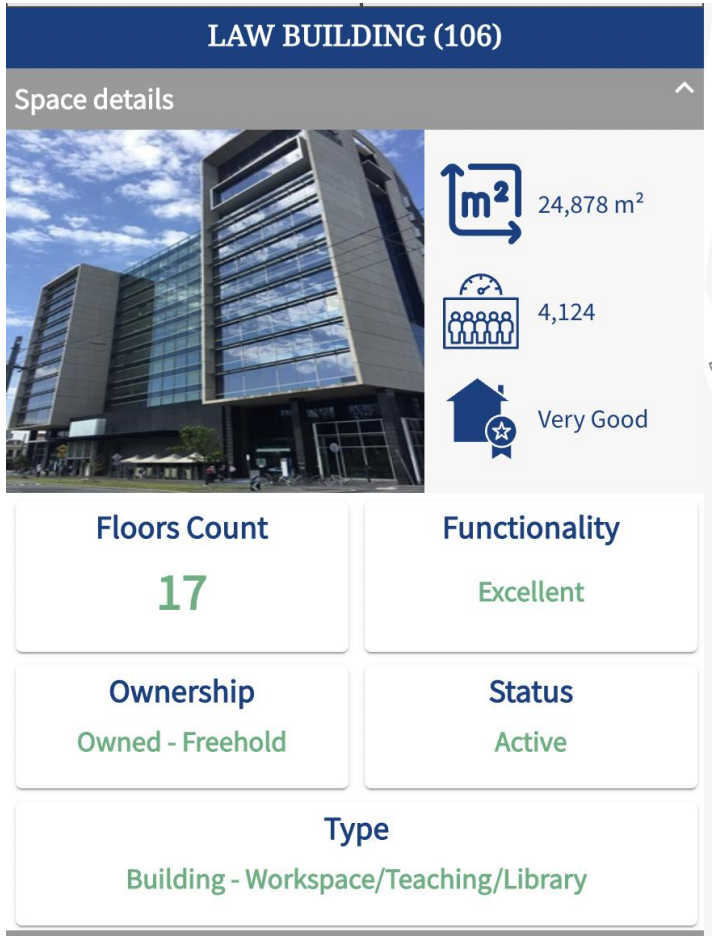
# 1. Estate Planning



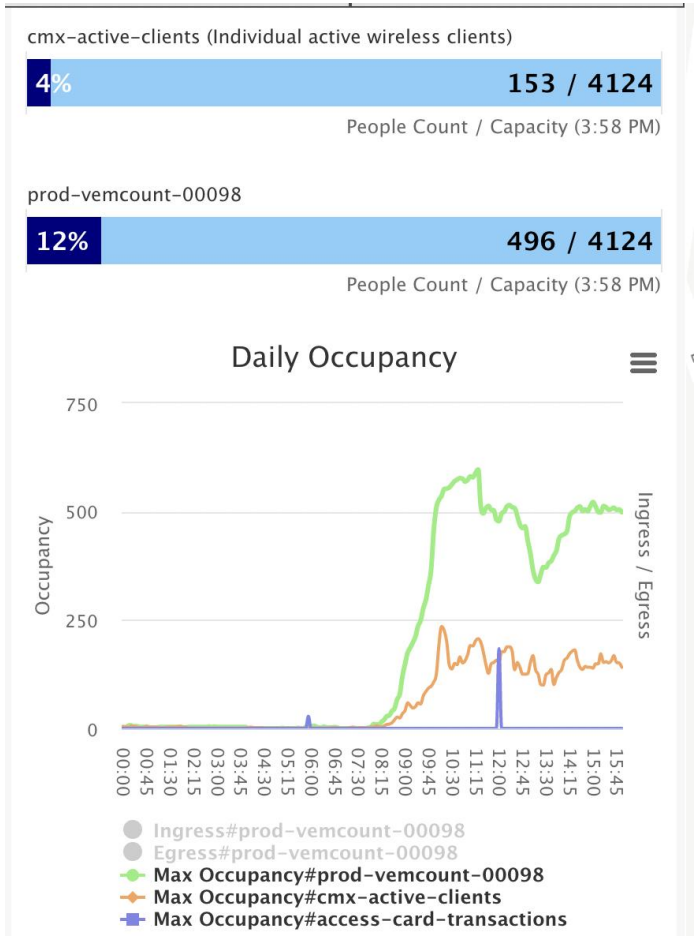

## Benefits

- **Optimised** class timetabling ✓
- Improved space use **efficiencies** ✓
- **Data driven** maintenance scheduling ✓
- **Evidence-based** capital investments ✓

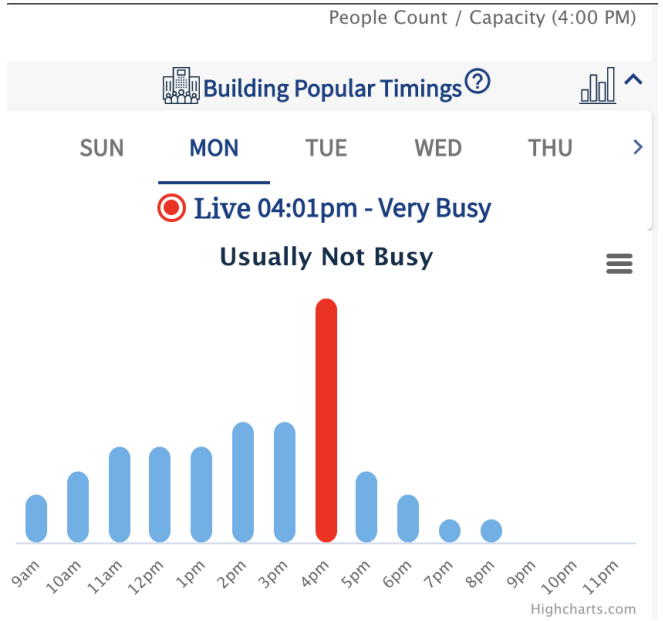
# Estate Planning: Space Utilisation




Building reference data

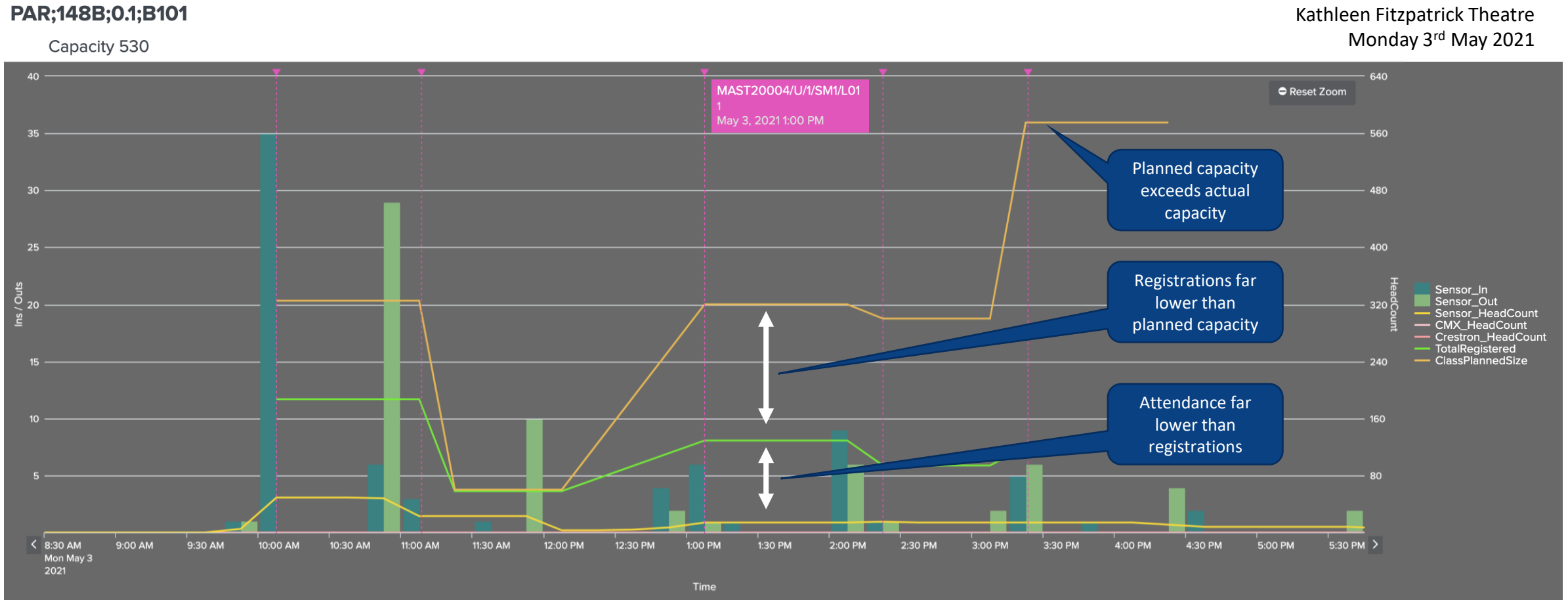



Real-time occupancy + recent history



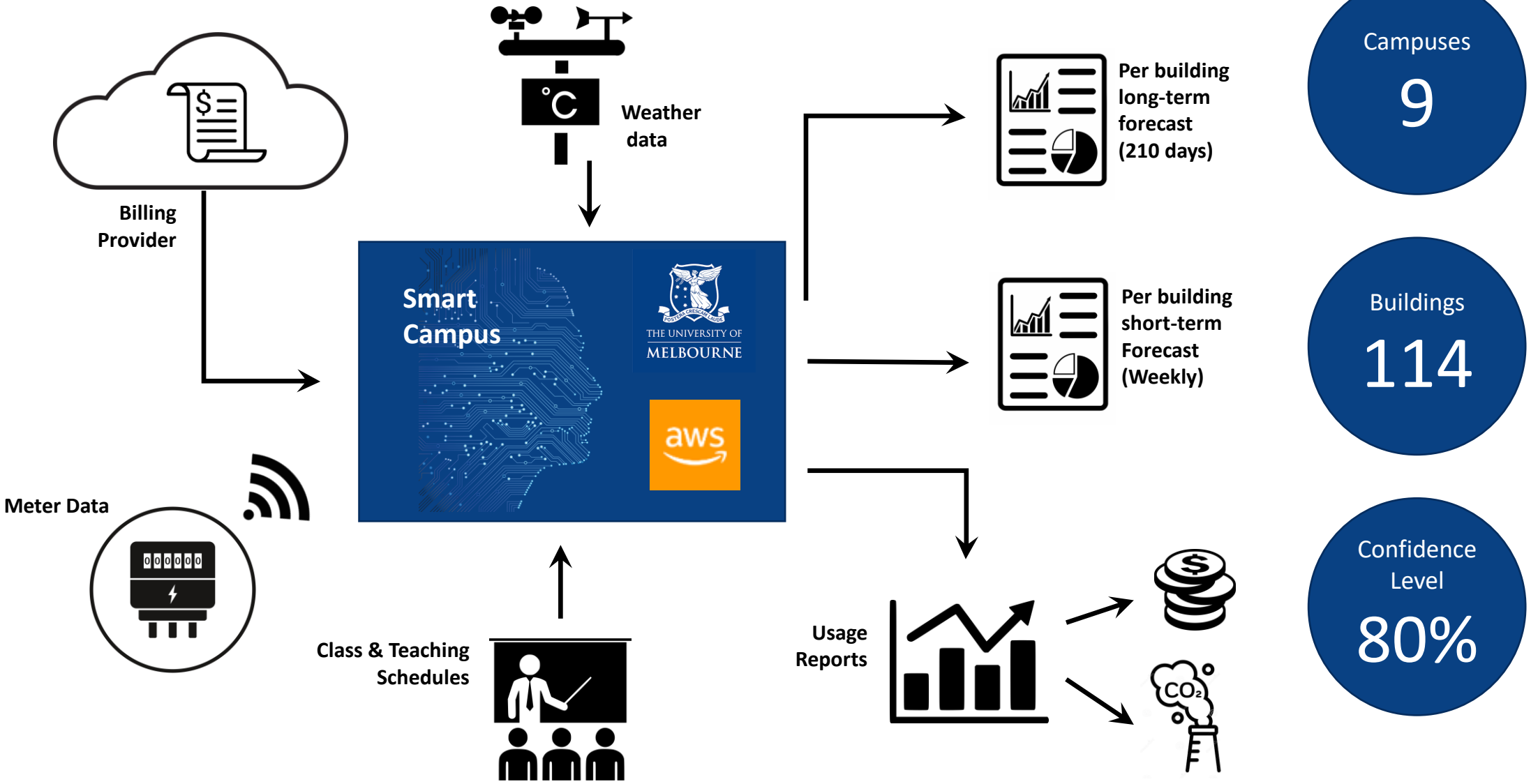

Busy times; modelled based on historical data.

# Estate Planning: Space Utilisation




Sensor data is automatically contextualised against other enterprise data sets including Location Data (Archibus), Class Timetabling Data (Syllabus Plus) and Class Registration Data (Allocate Plus) to identify under utilisation of spaces.

# 2. Energy: Usage & Forecasting



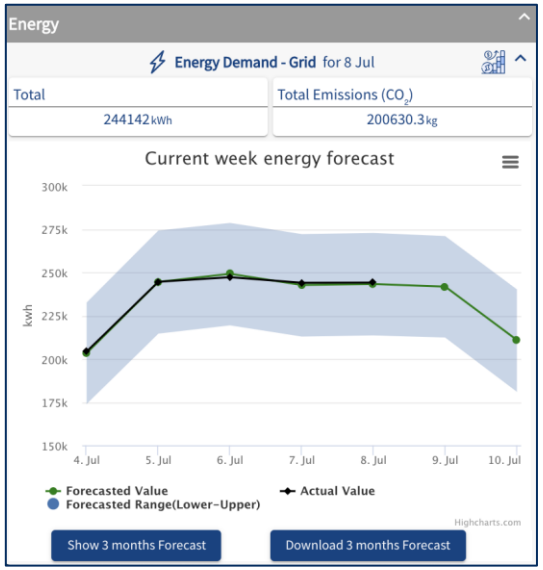

Campuses
9

Buildings
114

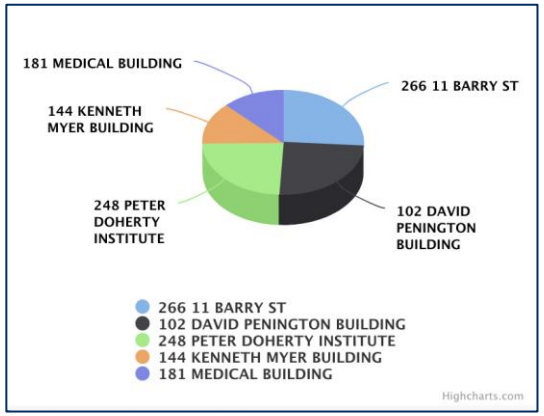
Confidence Level
80%

# Energy: Usage & Forecasting

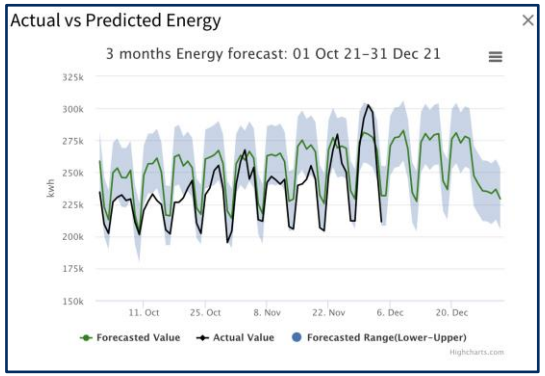

Usage snapshot




Campus-wide – Weekly forecasting




Top consumers



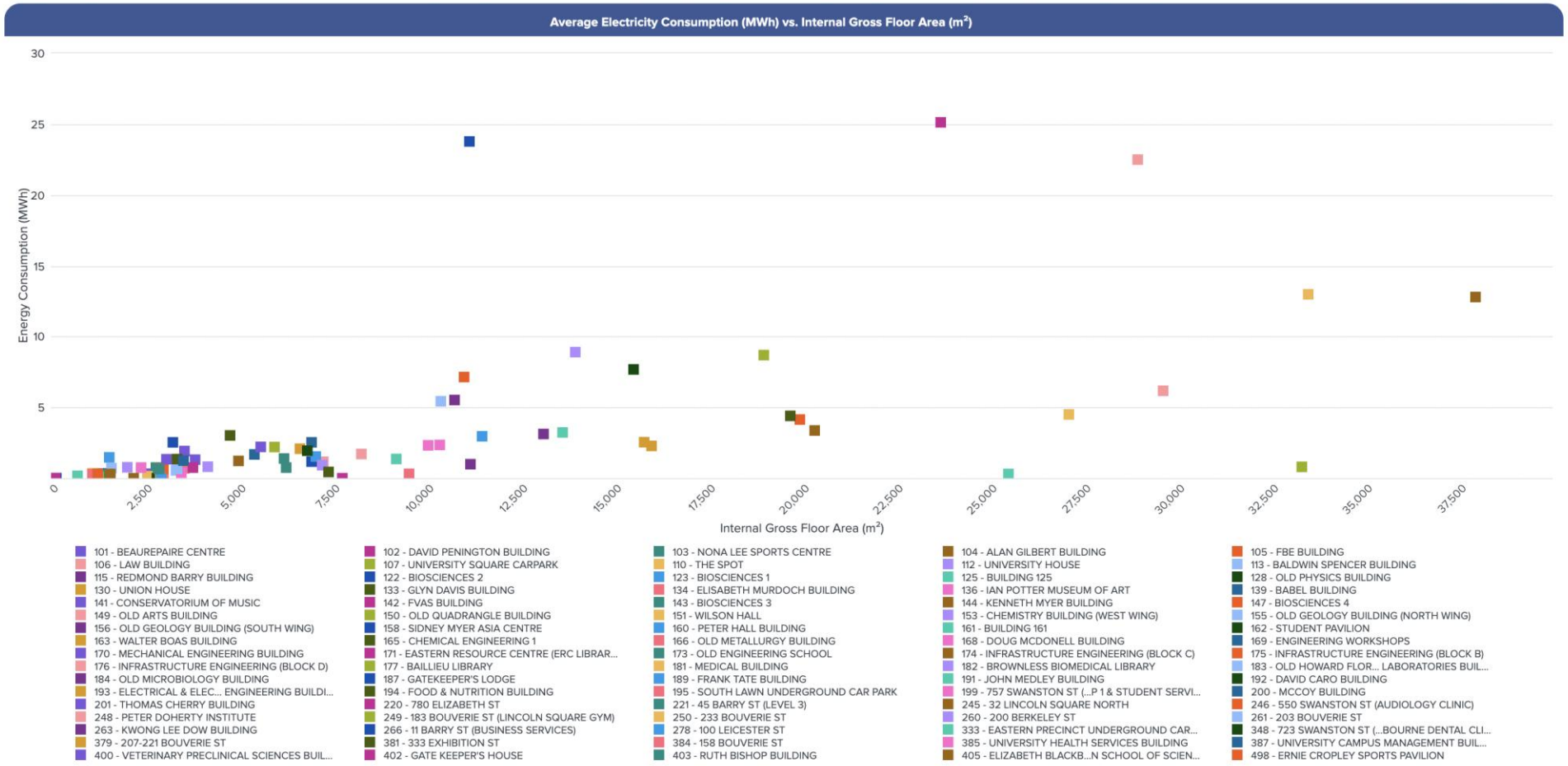

Building - Quarterly trend; forecast vs actual

## Benefits

- Contextualisation of data not previously possible ✓
- Expediated visibility of consumption and costs ✓
- Improved budgeting of a multi-million dollar spend ✓
- Data driven targeting of sustainability initiatives ✓

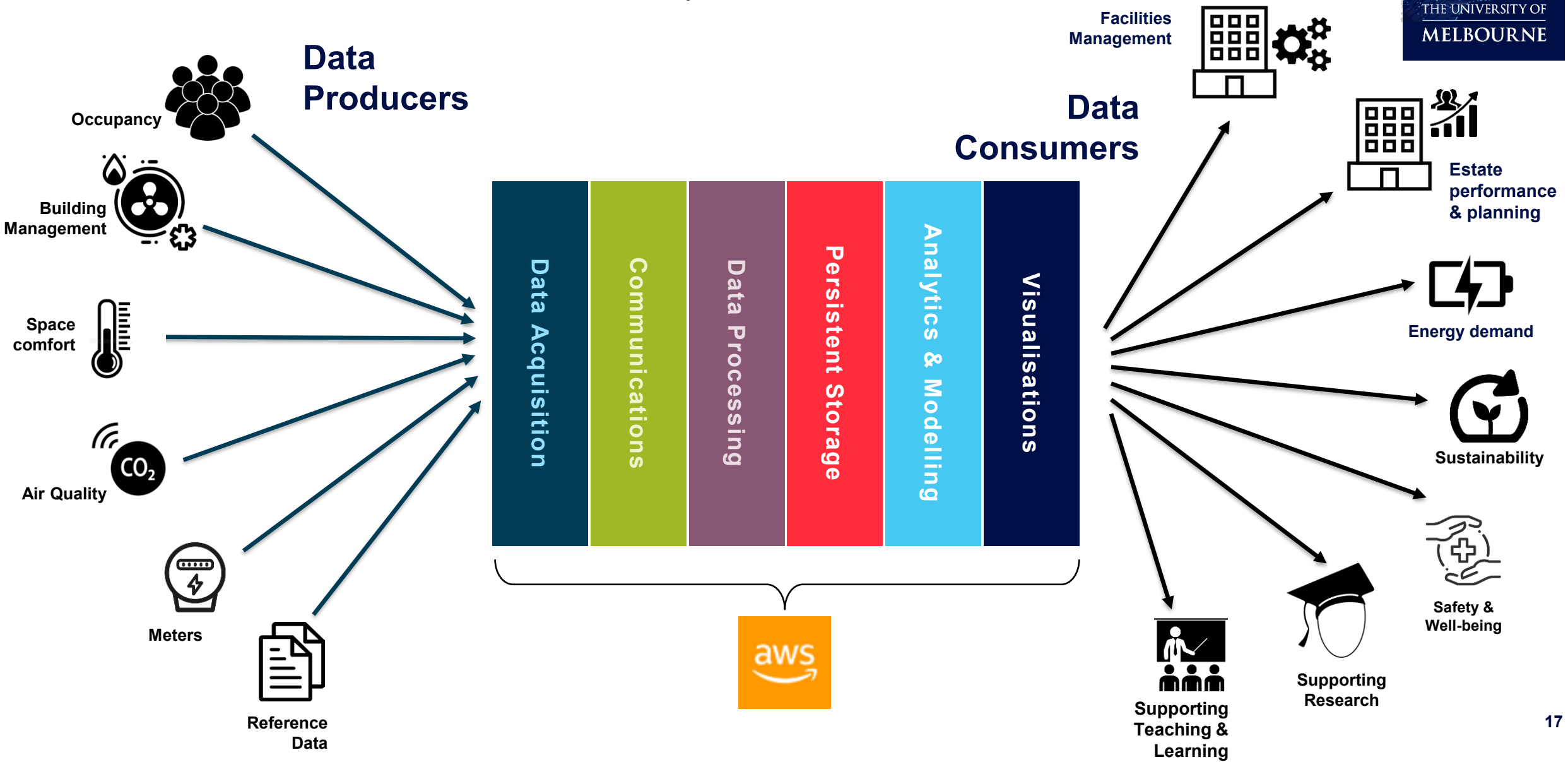
# Energy: Contextualisation

## Energy use vs building gross floor area (GFA): Energy Intensity



# Smart Campus Platform

Cost effective, full stack cloud-based platform



# Key Data Sources

Smart Campus draws data from multiple sensors, including fleets of IoT sensors along with numerous system-to-system integrations.

## IoT Sensors Fleets

**Space occupancy counters**  **~1500**

**Desk occupancy counters**  **~1000**

**Environmental sensors**  **~2200**

## System-to-System

TRIDIUM niagara4 — *Building Management*

*Electricity demand & generation* — Clariti

GALLAGHER — *Building Access*

*WiFi spatial analytics* — Cisco SPACES

Australian Government Bureau of Meteorology — *Historical weather & forecasting*

## Reference Data

TimeEdit — *Space booking & scheduling*

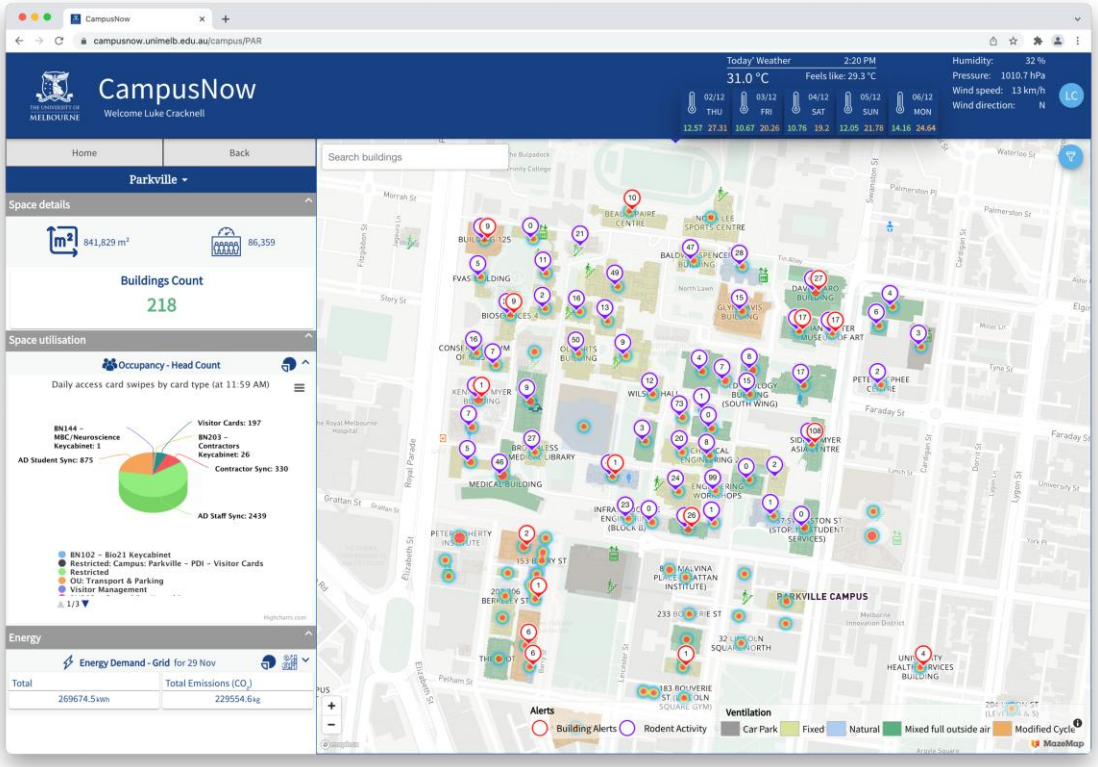
*Space & Asset Management* — ARCHIBUS

technology1 — *Student Management*

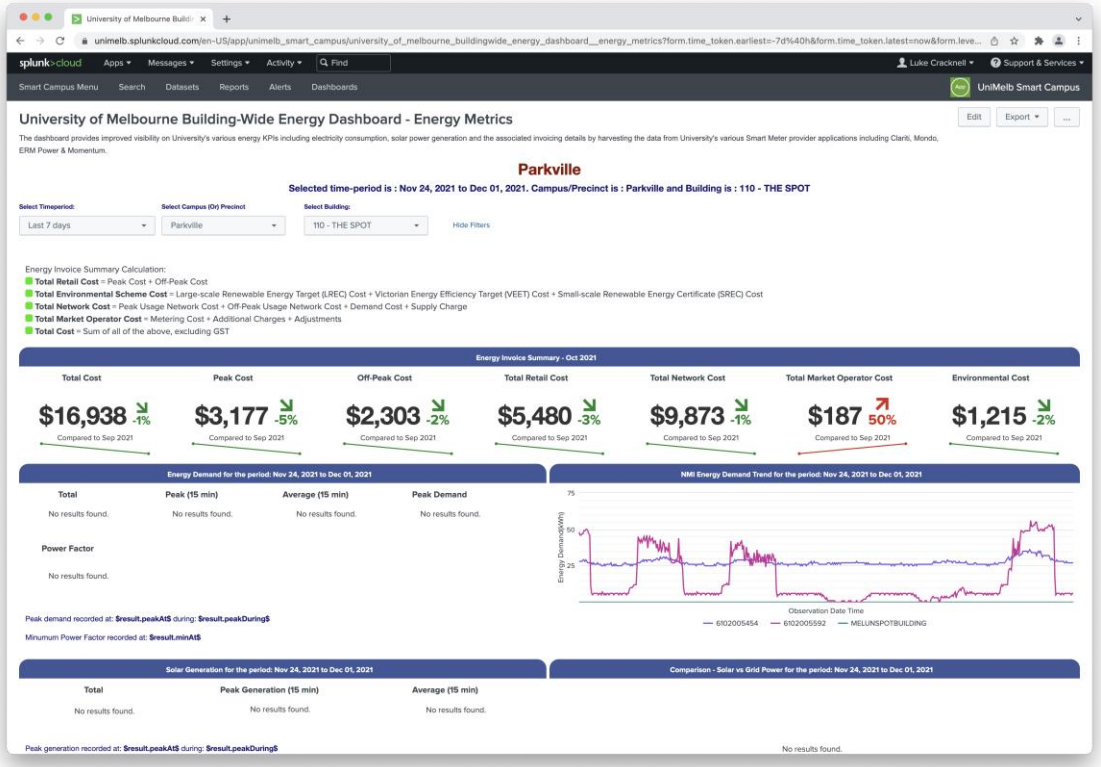
*Class Scheduling & Timetables* — Allocate+

MazeMap — *Campus & Building Maps*

# Smart Campus Visualisation & Reporting




**CampusNow**
Real-time View



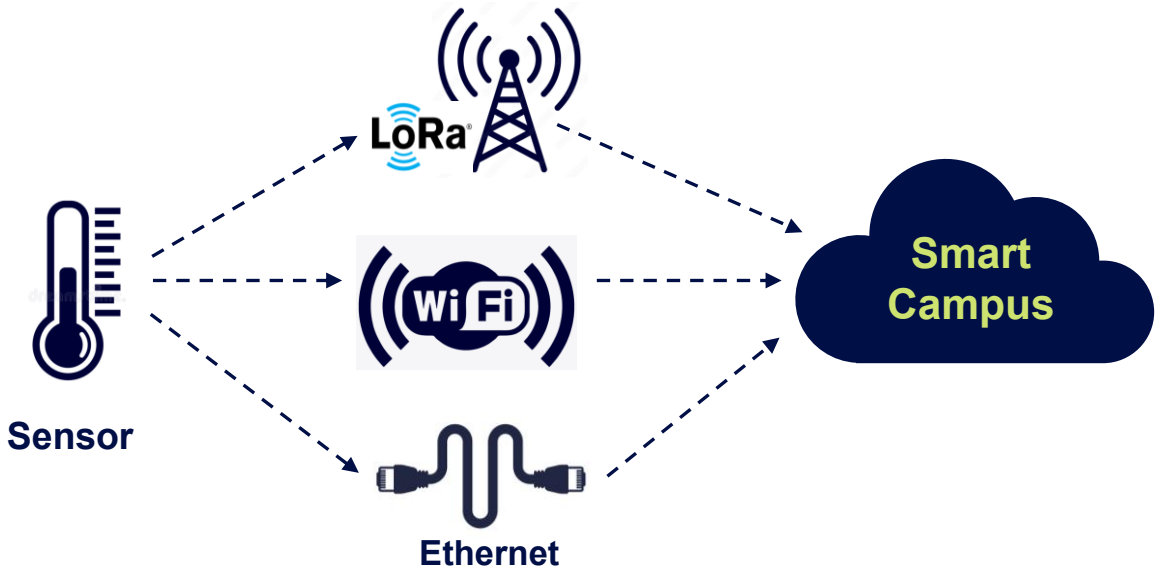

**Smart Campus Splunk Dashboards**
Historical Reporting

# Data Acquisition

Often the greatest challenge is reliably acquiring data from the field. Smart Campus provides both the infrastructure and expertise, needed to support a diverse choice of sensor options and flexible connectivity methods.

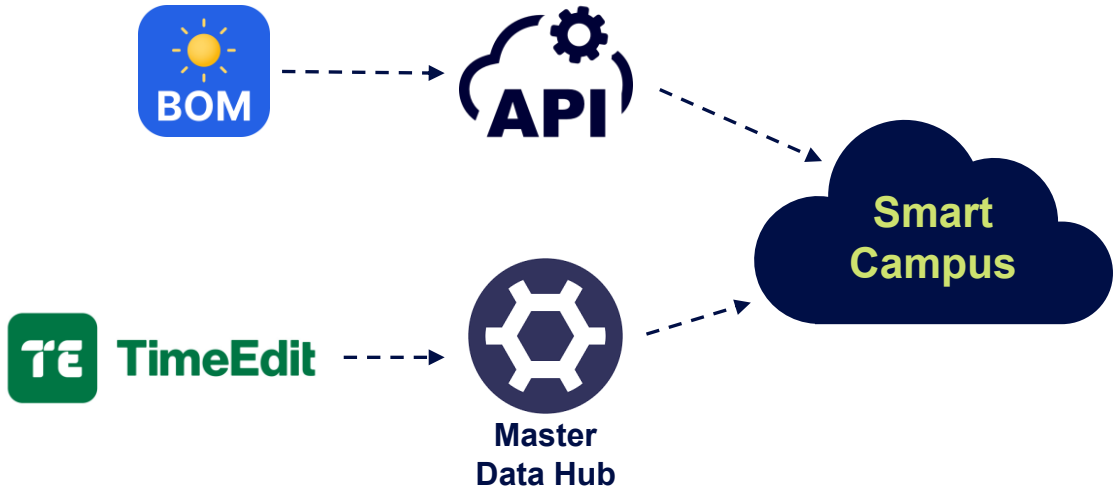
## Internet of Things IoT

We can connect a multitude of sensors the the platform and provide, **at each campus, a dedicated radio network (LoRaWAN)** to this end. We can also use traditional connectivity such as WiFi and Ethernet



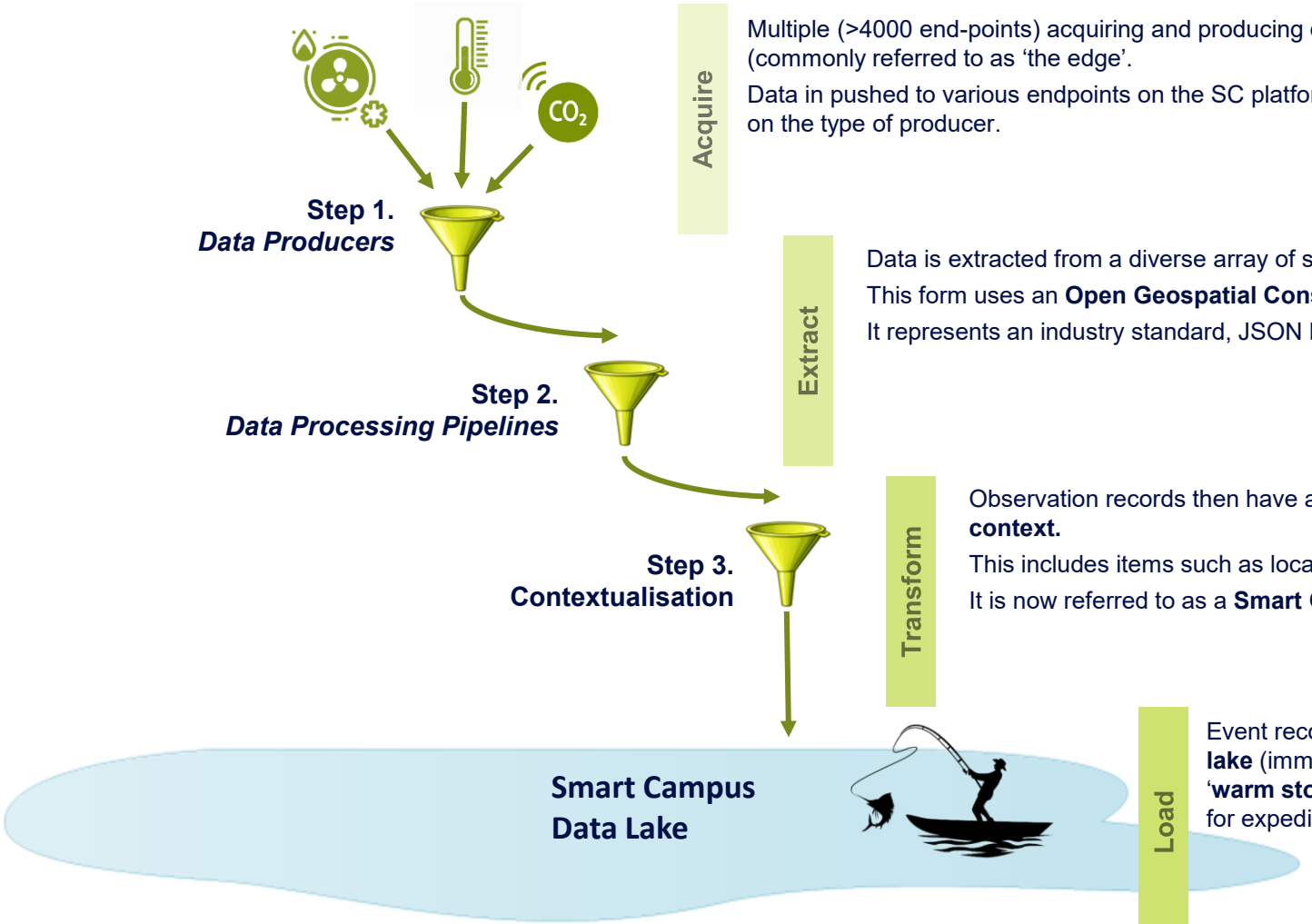

## System-to-System Integrations

We operate a number application integrations, with both internal UoM applications and external cloud-based services, such as the BoM's weather data. Have a system mind? We can connect it.



# Data Processing

The platform follows a traditional data processing pipeline architecture, implementing three steps; extract, transform and load (ETL). The pipelines also perform ‘contextualisation’ which is a powerful capability of the platform




**Acquire**

Multiple (>4000 end-points) acquiring and producing data in the field (commonly referred to as ‘the edge’.

Data in pushed to various endpoints on the SC platform, depending on the type of producer.

**Extract**

Data is extracted from a diverse array of source formats into a standardised form.

This form uses an **Open Geospatial Consortium (OGC) observation record** format

It represents an industry standard, JSON based format for IoT data.

**Transform**

Observation records then have additional information appended to them to provide **context.**

This includes items such as location, timetabling information and space characteristics

It is now referred to as a **Smart Campus event**

**Load**

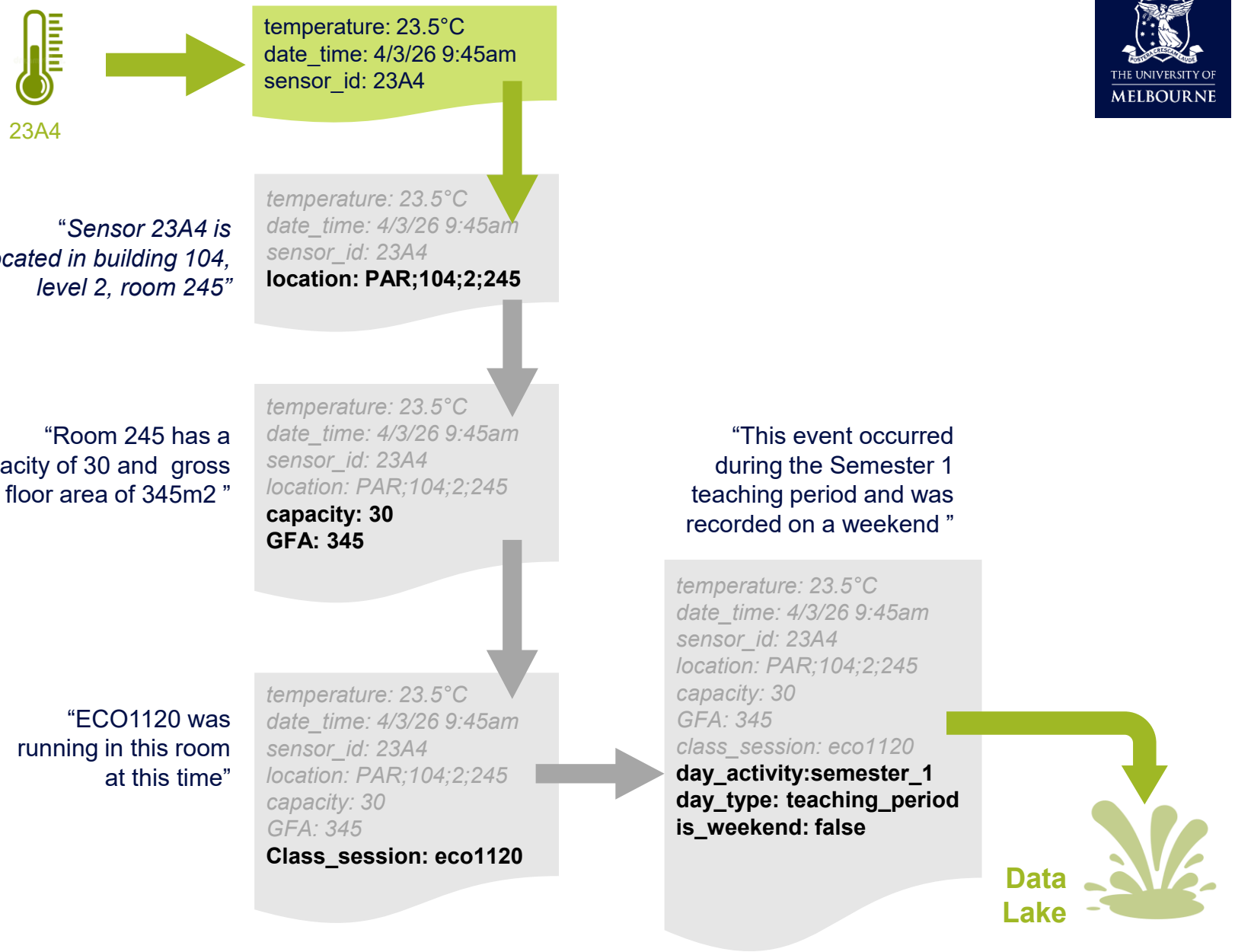
Event records are loaded into the Smart Campus **data lake** (immutable persistent storage). Data is also held in ‘**warm storage**’, maintaining the last 60 days of records for expedited querying.

# What is Contextualisation?

The power of the Smart Campus platform lies in the concept of ***contextualisation***.

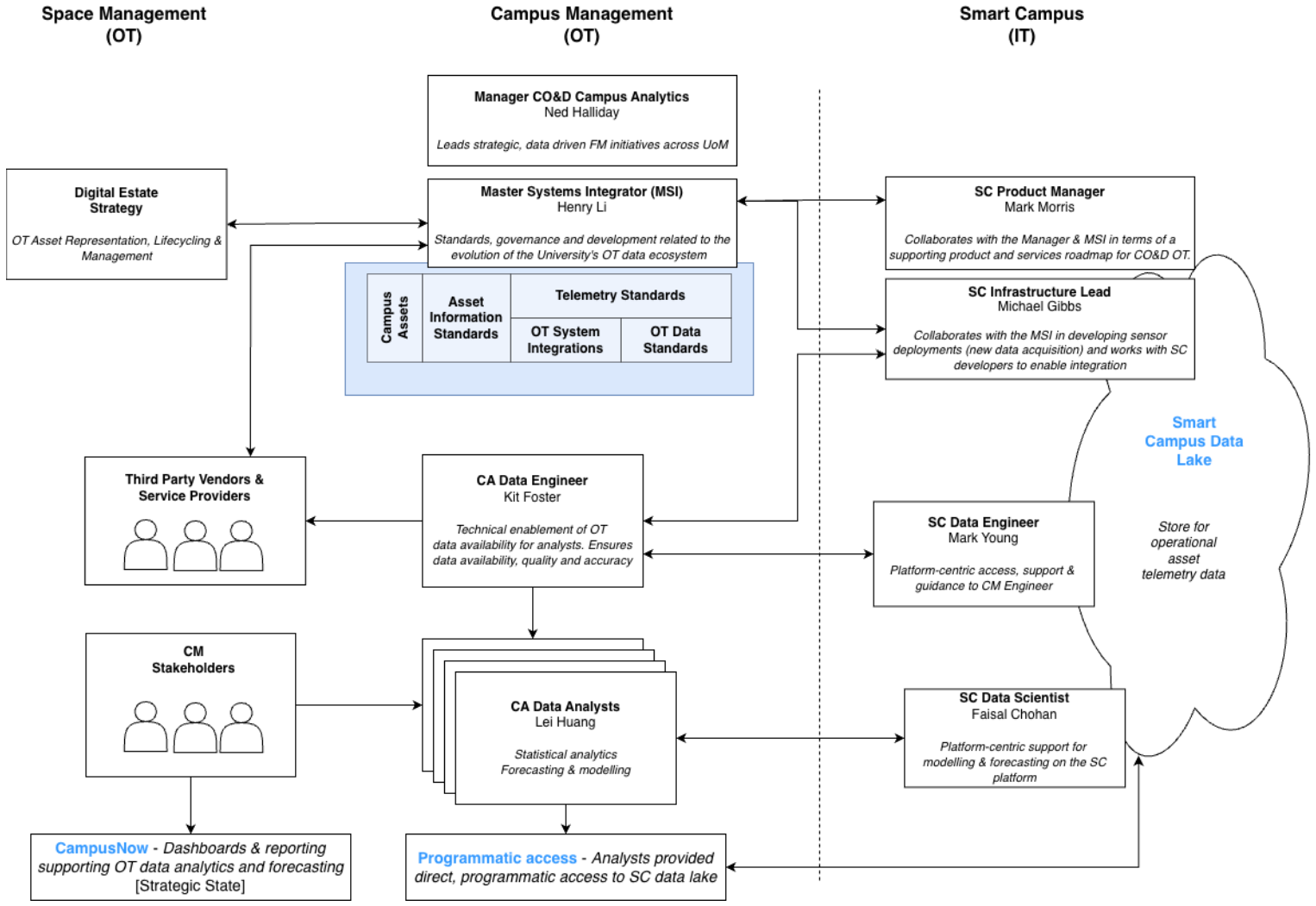
Through an extensible field, attached to every single event record, *information giving additional context* to the event is inserted into each recorded.

Today this context information includes space metadata, class timetabling and academic calendar.



# Bridging the OT / IT Domains

> Facilitating OT telemetry capabilities in partnership with the CO&D Campus Analytics team




## Ideation

- Smart Campus Product Manager and Infrastructure Lead collaborate with MSI and CA Manager in identifying and developing new sources of OT telemetry data.

## Implementation

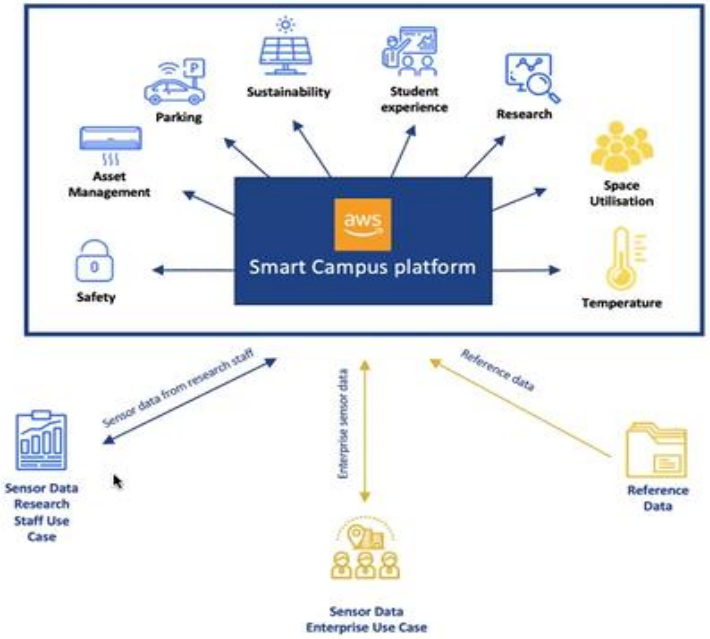
- CA Data Engineer collaborates with SC resources to implement and commission new sources of OT telemetry data.
- End state is to make these new data available in the Smart Campus data lake.

## Execution

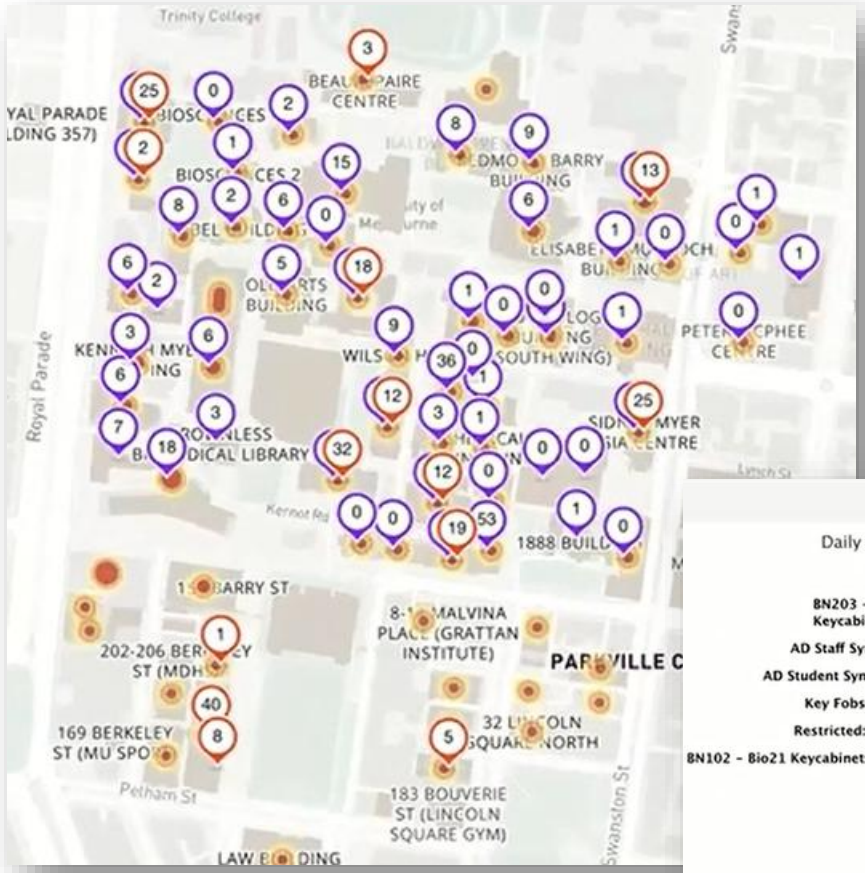
- With new sources of now data available in the SC data lake, CA analysts have programmatic access to extract, cleanse, prepare and analyse these data, supporting their internal initiatives and stakeholders.
- Where required, CA Analysts interact and collaborate with SC data specialists in developing more complex analytics and modelling.

# Realtime data for campus insights

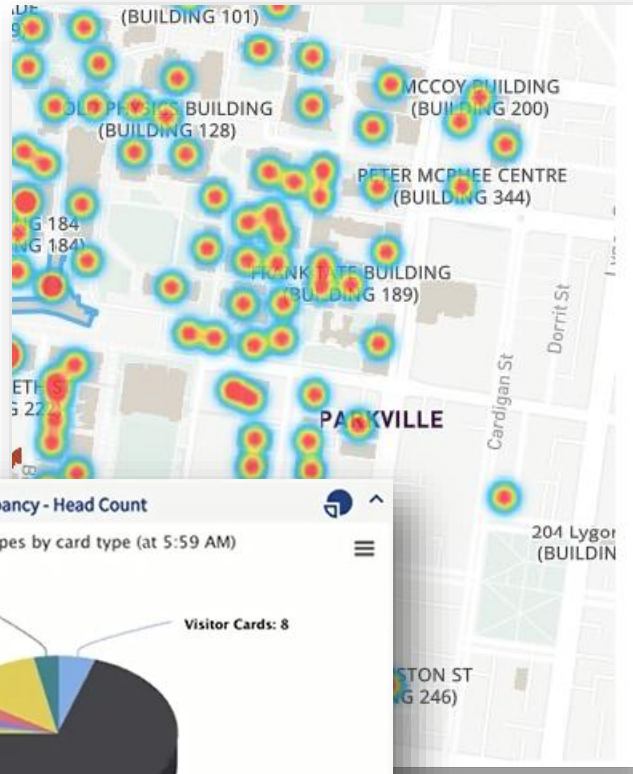
- Energy management
- Space utilisation
- Building comfort levels
- Badge swipes / security
- Mice traps!

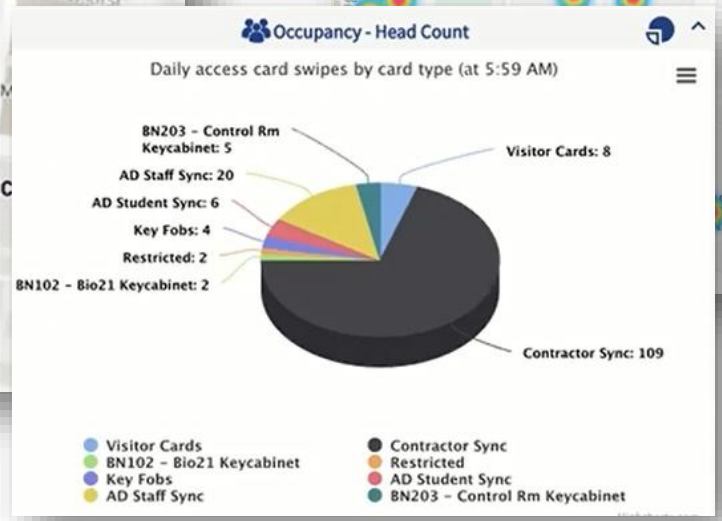



- People counters




Occupancy heat maps



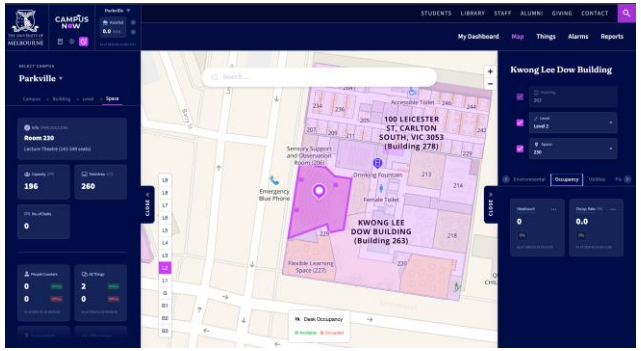



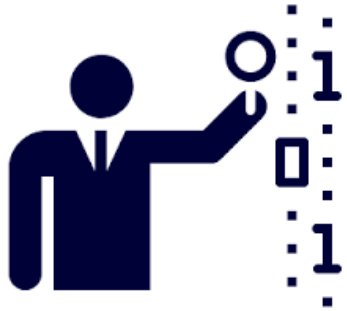
# Analytics & Modelling

Smart Campus offers two pathways when working with the data we collect. Our *CampusNow* application is the primary portal into our data and analytics. Our team also compromises of several data specialists who can assist in more bespoke needs. For advanced users we offer several DIY data options.

## Smart Campus Services

We offer a range of analytics and modelling services. Access to our primary data and secondary analysis is via the CampusNow web app. We also have data specialists within the team that can assist and collaborate with custom analysis and reporting.



## Self Serve

We can provide programmatic access to the Smart Campus data lake, allowing for DIY data analysis. There are multiple options for interfacing with standard academic research tools such as MatLab and R.

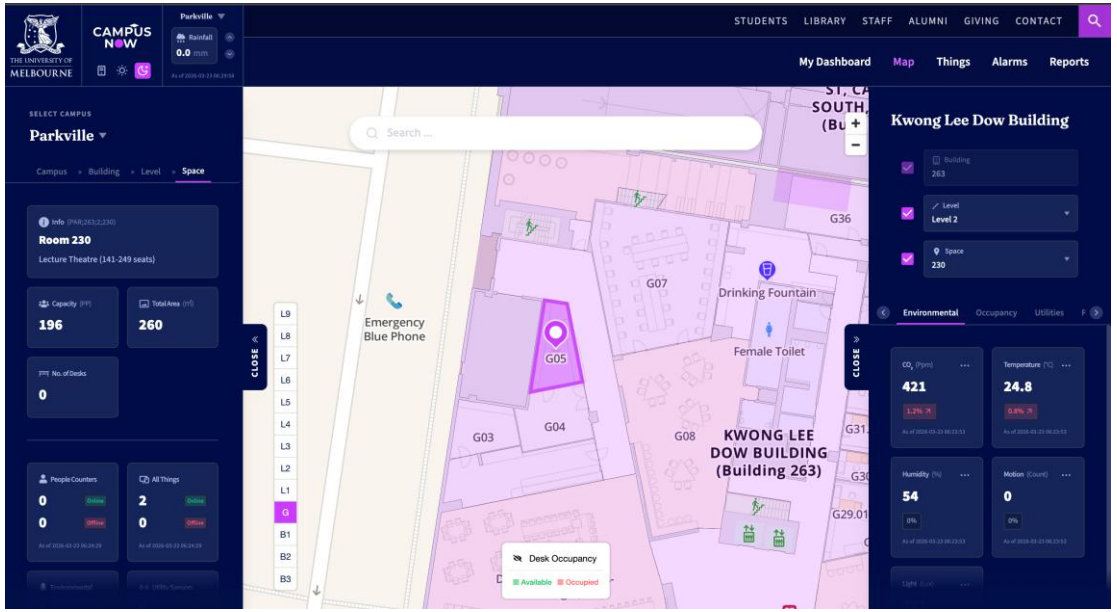
MATLAB

python™

R Studio®

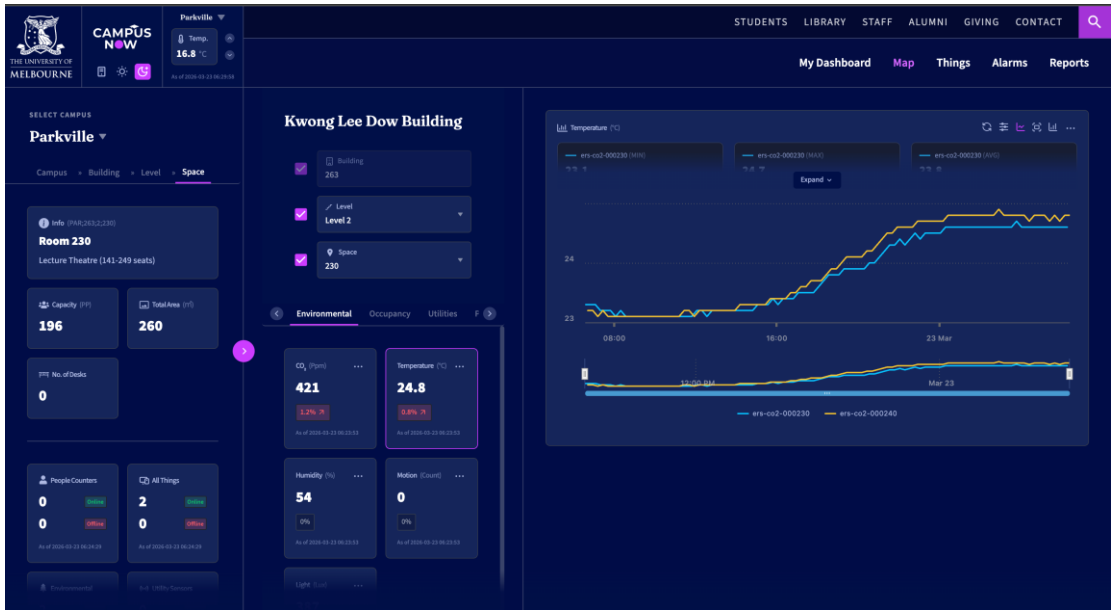
# Data Visualisation

Through own flagship application *CampusNow*, users can interact with the data we collect and analysis we produce, whilst also able to access standardised, scheduled reporting.




*CampusNow* map-based data exploter

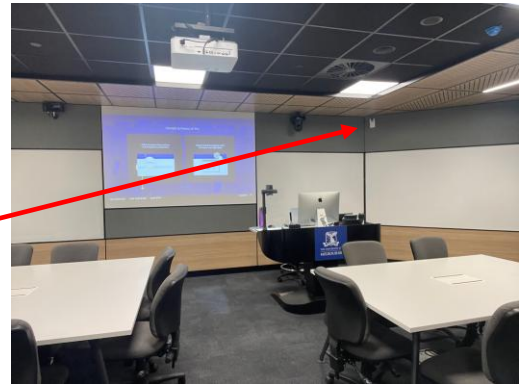
*CampusNow* data visualisation



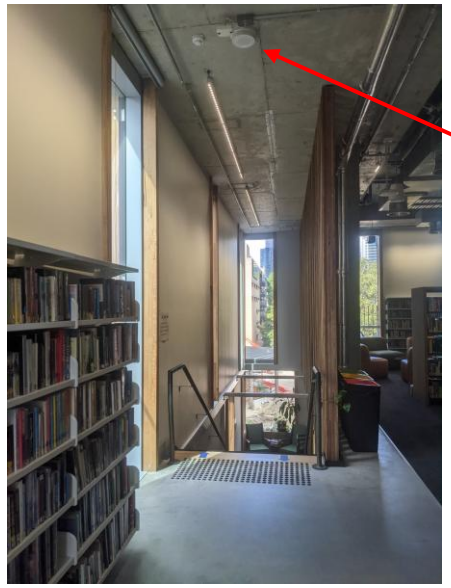
# Technology landscape

The Steinel and Xovis sensors represent the bulk of the occupancy counting sensor fleet

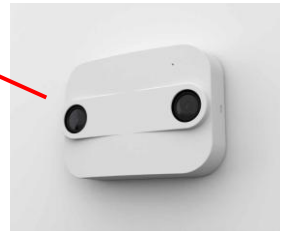
steinel



These sensors are based on a more traditional camera/computer vision model. Though the units employs multiple sensing technologies such as passive infrared (PIR), ultrasonic and HF radio (like radar), to improve accuracy.



XOVIS



Based on a stereoscopic (dual lens) approach used to create 3-dimensional views and subsequently derive counts.

These sensors are installed in a downward facing orientation above door exit and entry points.

3D views of persons moving through the doorways are used to count individuals and direction of travel.

Small, discrete, passive sensor tracks desk occupancy, using a thermal sensor to detect human presence. The sensor can be installed in minutes, with no data cabling required and a 4+ year battery life. Unit pricing is approximately $AU130.00 including battery

ELSYS PART OF BEMSIQ GROUP

Desk sensors ~800

Occupancy sensors ~1200

Parkville Teaching Spaces ~400

Parkville Floors & Building ~60%

Parkville Teaching Spaces ~200

Southbank Floors & Building ~50%

# Air quality and presence detection


- CO2 sensor
- Temperature sensor
- Humidity sensor
- Light sensor
- Motion detection sensor (PIR)

Buildings
415

Teaching Spaces
+850

Total Sensors
~2500

LoRaWAN®

- Low power radio network
- Perfect for sensor data
- Cost effective at scale

# Bespoke Engagements

In addition to the broader strategic partnerships and development of supporting defined products and services, the Smart Campus data and skillset is regularly called upon to support more bespoke requests and initiatives

### 01. Open Day

Over the past three years, in collaboration with Communications and Marketing, Smart Campus has continued to evolve capabilities to support quantifying attendance and engagement during UoM's annual Open Day.

The teams delivers a set of custom reports supporting analytics across key buildings and categorised by faculty

### 02. Quiet Spaces

FE&IT provides 'quiet spaces' within their buildings, geared towards neuro-diverse students.

Noise levels within these spaces are often a source of contention and sometimes conflict.

In collaboration with Smart Campus, FE&IT have trialled sound sensors aimed at quantifying noise levels, understanding what levels are acceptable to stakeholders and allowing for rapid interventions when outside acceptable levels

### 03. EMI / Metro Tunnel

Smart Campus has been engaged to onboard several electromagnetic interference (EMI) sensors.

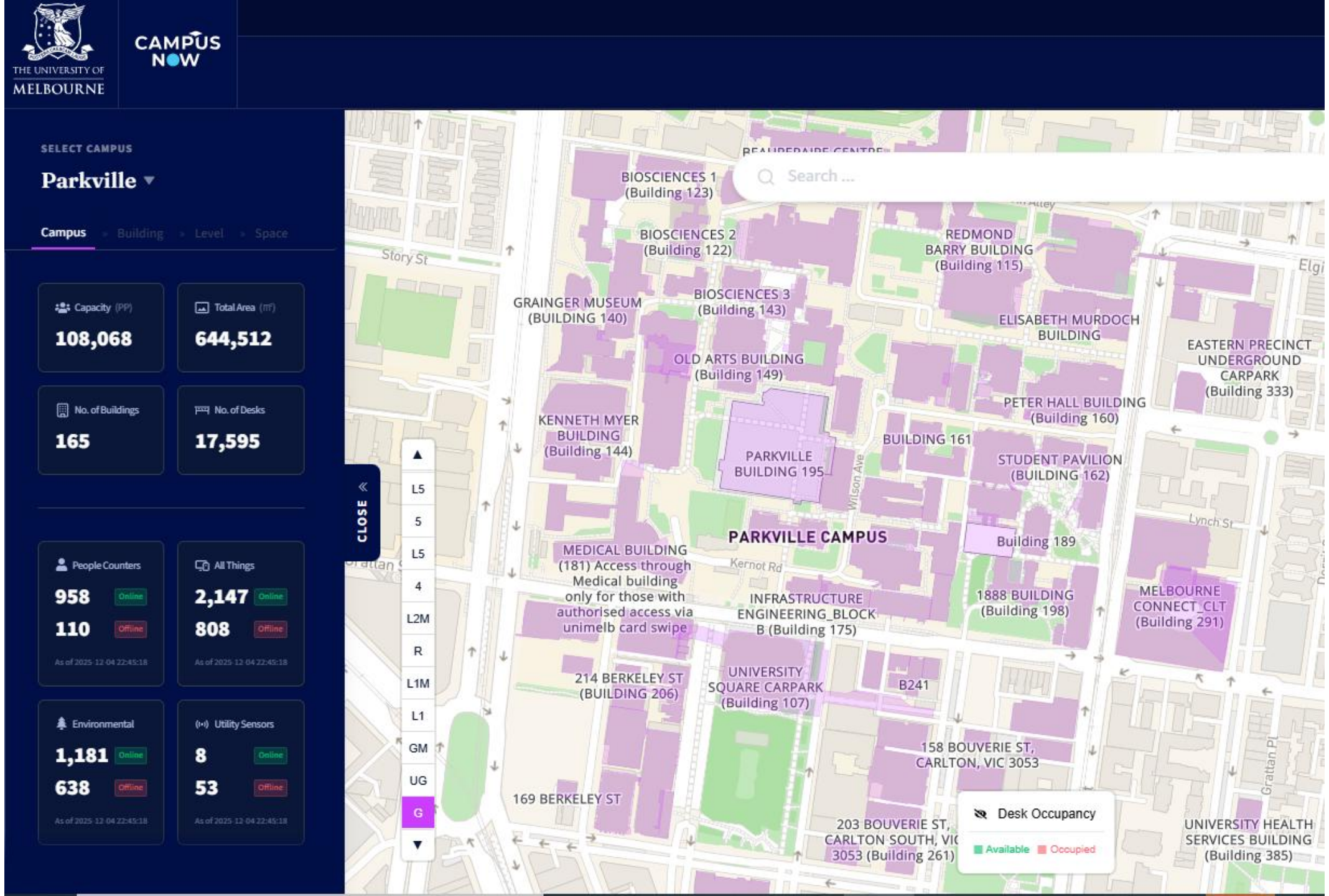
These devices assist in quantifying the impacts of EMI from the Metro Tunnel on various Parkville MDHS facilities.

These data are ingested into the SC data lake and made available to University stakeholders.

### 04. UoM Sports Tailgating

Data from occupancy sensors located at gym entries is combined with membership swipe data to identify potential instances of tailgating.

This monthly report is provided to gym stakeholders, who when identifying potential tailgating will request associated video surveillance footage to to establish the requisite evidence.


THE UNIVERSITY OF MELBOURNE
CAMPUS NOW
SELECT CAMPUS
Parkville
Campus
Building
Level
Space
Capacity (PP)
108,068
Total Area (m²)
644,512
No. of Buildings
165
No. of Desks
17,595
People Counters
958 Online
110 Offline
As of 2025-12-04 22:45:18
All Things
2,147 Online
808 Offline
As of 2025-12-04 22:45:18
Environmental
1,181 Online
638 Offline
As of 2025-12-04 22:45:18
Utility Sensors
8 Online
53 Offline
As of 2025-12-04 22:45:18
CLOSE
Search ...
BIOSCIENCES 1 (Building 123)
BIOSCIENCES 2 (Building 122)
BIOSCIENCES 3 (Building 143)
GRAINGER MUSEUM (BUILDING 140)
REDMOND BARRY BUILDING (Building 115)
ELISABETH MURDOCH BUILDING
EASTERN PRECINCT UNDERGROUND CARPARK (Building 333)
OLD ARTS BUILDING (Building 149)
PETER HALL BUILDING (Building 160)
KENNETH MYER BUILDING (Building 144)
PARKVILLE BUILDING 195
BUILDING 161
STUDENT PAVILION (BUILDING 162)
PARKVILLE CAMPUS
Building 189
MEDICAL BUILDING (181) Access through Medical building only for those with authorised access via unimelb card swipe
INFRASTRUCTURE ENGINEERING_BLOCK B (Building 175)
1888 BUILDING (Building 198)
MELBOURNE CONNECT_CLT (Building 291)
214 BERKELEY ST (BUILDING 206)
UNIVERSITY SQUARE CARPARK (Building 107)
B241
158 BOUVERIE ST, CARLTON, VIC 3053
169 BERKELEY ST
203 BOUVERIE ST, CARLTON SOUTH, VIC 3053 (Building 261)
UNIVERSITY HEALTH SERVICES BUILDING (Building 385)
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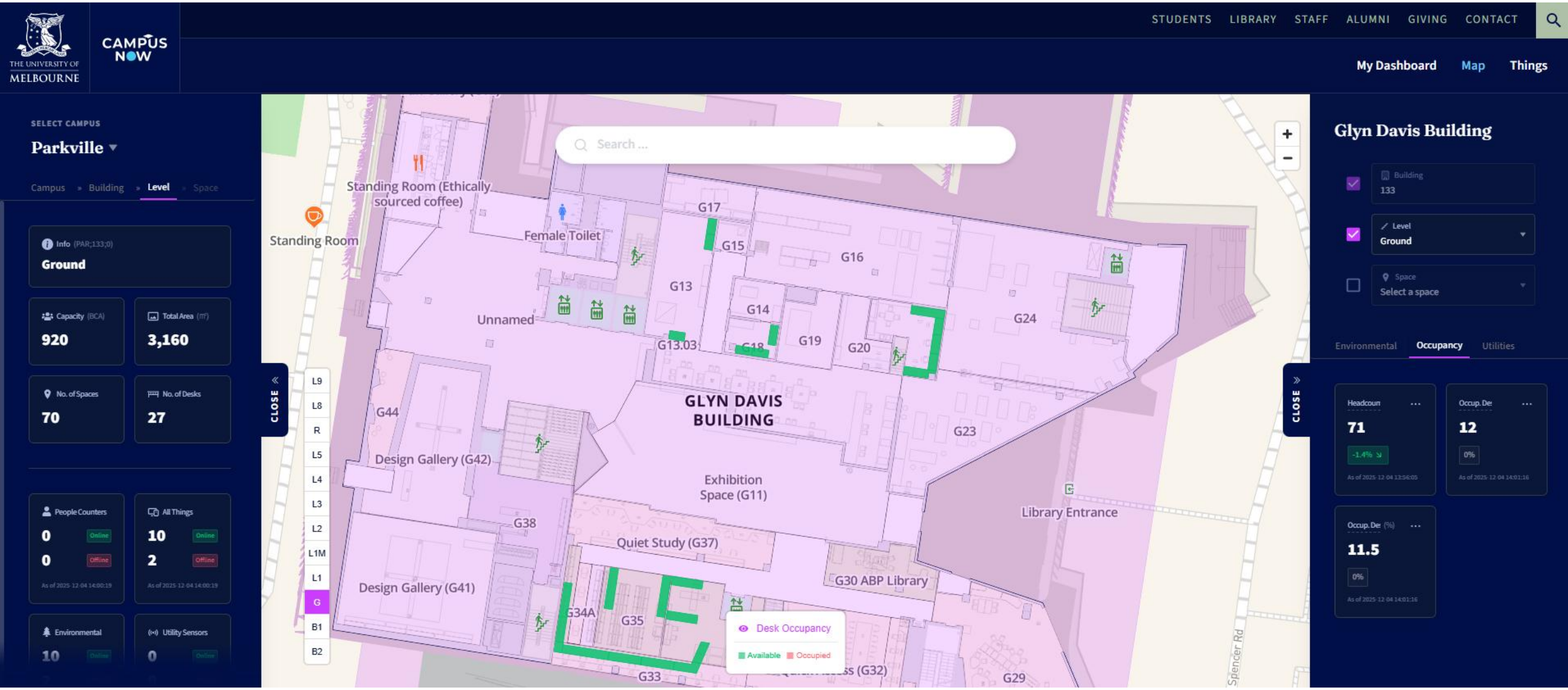
THE UNIVERSITY OF MELBOURNE
CAMPUS NOW
STUDENTS
LIBRARY
STAFF
ALUMNI
GIVING
CONTACT
My Dashboard
Map
Things
SELECT CAMPUS
Parkville
Campus » Building » Level » Space
Info (PAR;133;0)
Ground
Capacity (BCA)
920
Total Area (m²)
3,160
No. of Spaces
70
No. of Desks
27
People Counters
0 Online
0 Offline
As of 2025-12-04 14:00:19
All Things
10 Online
2 Offline
As of 2025-12-04 14:00:19
Environmental
10
Utility Sensors
0
Search ...
Standing Room (Ethically sourced coffee)
Standing Room
Female Toilet
Unnamed
G17
G15
G16
G13
G14
G13.03
G18
G19
G20
G24
GLYN DAVIS BUILDING
G44
Design Gallery (G42)
Exhibition Space (G11)
G23
G38
Quiet Study (G37)
Library Entrance
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Design Gallery (G41)
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G35
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THE UNIVERSITY OF MELBOURNE

CAMPUS NOW

STUDENTS LIBRARY STAFF

Search ...

Campus
All

Building
All

Level
All

Space
All

Refine Filters

| | | | | | |
|---|---|---|---|---|---|
| Online | 2 minutes ago<br>04/12/2025 13:46:18 | PAR;149;2;204 | ers-co2-000719<br>Elsys ERS CO2 | Elecom Electronis Supply | Environmental |
| Online | a minute ago<br>04/12/2025 13:47:17 | PAR;266;3;390.08 | ers2-desk-00583<br>Elsys ERS Desk Sensor | Elecom Electronis Supply | Occupancy |
| Offline | 4 months ago<br>15/08/2025 15:50:57 | PAR;103;0;G05 | ers-co2-000076<br>Elsys ERS CO2 | Elecom Electronis Supply | Environmental |
| Online | 5 minutes ago<br>04/12/2025 13:43:17 | PAR;404;1;C104 | ers-co2-001760<br>Elsys ERS CO2 | Elecom Electronis Supply | Environmental |
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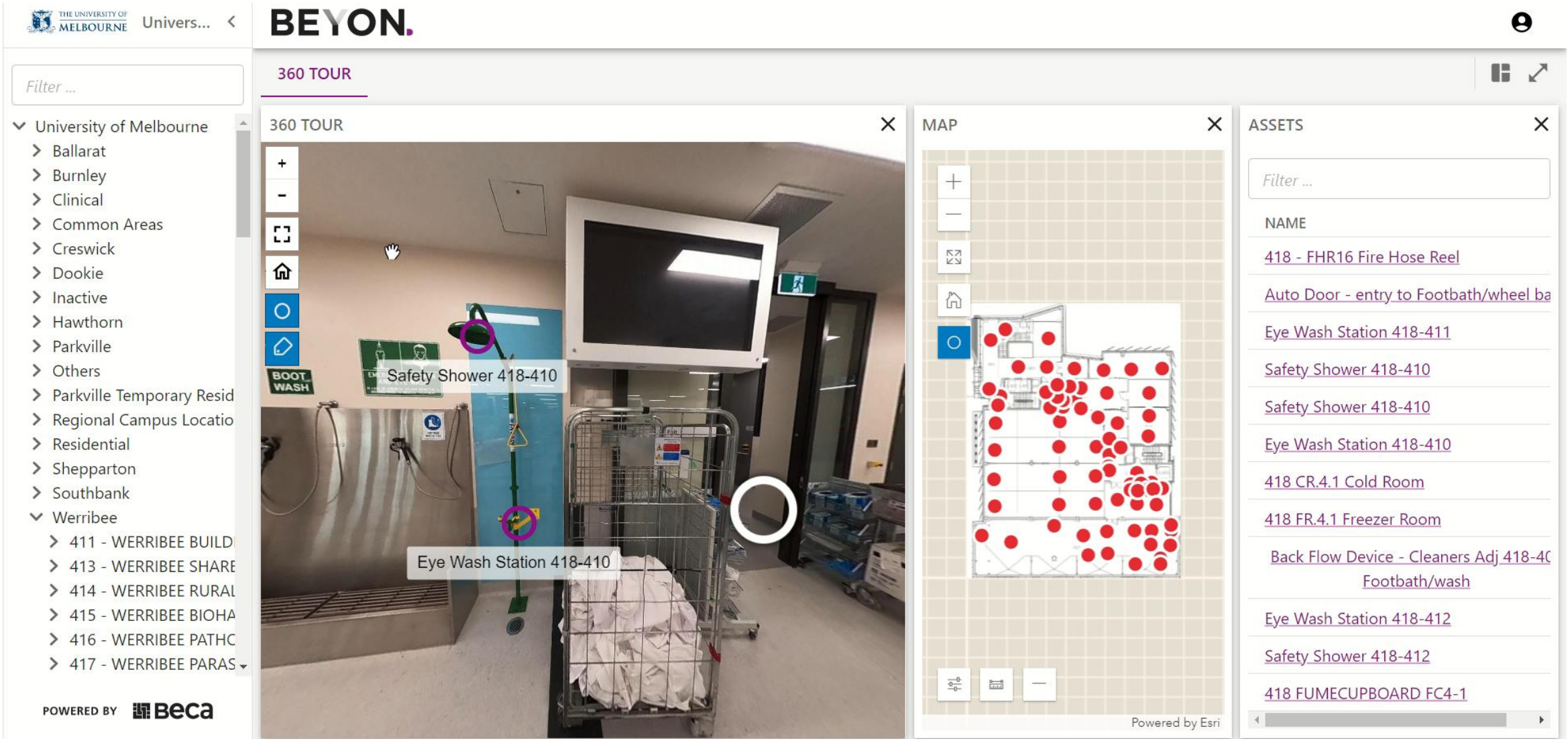
| Online | 9 minutes ago<br>04/12/2025 13:39:17 | PAR;174;5;504 | ers-co2-002074<br>Elsys ERS CO2 | Elecom Electronis Supply | Environmental |
| Offline | a month ago<br>07/11/2025 23:10:30 | PAR;133;0;G23 | ers-co2-000444<br>Elsys ERS CO2 | Elecom Electronis Supply | Environmental |
| Offline | 4 months ago<br>15/08/2025 20:17:38 | PAR;199;1;106 | ers-co2-001169<br>Elsys ERS CO2 | Elecom Electronis Supply | Environmental |


THE UNIVERSITY OF MELBOURNE
Univers...
BEYON.
Filter ...
University of Melbourne
Ballarat
Burnley
Clinical
Common Areas
Creswick
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Hawthorn
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Others
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Southbank
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411 - WERRIBEE BUILD
413 - WERRIBEE SHARE
414 - WERRIBEE RURAL
415 - WERRIBEE BIOHA
416 - WERRIBEE PATHC
417 - WERRIBEE PARAS
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360 TOUR
BOOT WASH
Safety Shower 418-410
Eye Wash Station 418-410
MAP
Powered by Esri
ASSETS
Filter ...
NAME
418 - FHR16 Fire Hose Reel
Auto Door - entry to Footbath/wheel ba
Eye Wash Station 418-411
Safety Shower 418-410
Safety Shower 418-410
Eye Wash Station 418-410
418 CR.4.1 Cold Room
418 FR.4.1 Freezer Room
Back Flow Device - Cleaners Adj 418-40
Footbath/wash
Eye Wash Station 418-412
Safety Shower 418-412
418 FUMECUPBOARD FC4-1

# Short term quick wins: Progress your Digital Estate Journey

- Start small / leverage quality data from a recent project
- Stocktake existing asset data – leveraging information from business partners
- Partner with researchers/faculty collaboration / student internships integrated learning leveraging student programming skills / A.I. tools for data automation.
- Draft aspirational goals in a Digital Estate Strategy. Start with a one page 'strategic briefing proposal' clearly documenting the use-case, ROI and business impacts of not proceeding. This document will underpin future funding proposals for your IT capital pipeline.
- Co-create / continued feedback from internal stakeholders to ensure alignment with broader strategic objectives of your institution.
- Seek sector peer review - reach out to sector colleagues you'll be surprised how many peer colleagues are on a similar journey and have valuable lessons and tips to share
- Ensure your updated data standards requirements are reflected in your contracts! (capital works & maintenance).
- Collaborate closely with your capital works and maintenance colleagues. Seek their feedback on how to best approach the requirement for data standards in a project context. Seek feedback from PMs, can't say this enough! You won't see the hurdles unless you seek feedback!
- Consider cultivating a data governance working group – collaboratively define your data sponsors, data custodians, data stewards (internal & external) who/which team is ultimately accountable for the data maintenance and how is the data quality measured?


**Gain hands-on experience in spatial data, GIS, and digital infrastructure while contributing to projects shaping the University's future campus operations.**

**Internship Opportunities**

- Space auditing of buildings and assets
- Site surveying
- Drafting CAD floor plans
- GIS data mapping
- Using tools like AutoCAD, ArcGIS, Power BI, Archibus, MazeMap
- Programming and automation with Python & LISP
- Digital integration using Boomi Platform
- BIM modelling with Revit

**Key Dates**

**Applications Close:**
15 September 2025

**Commences:**
Mid to late November 2025

**This internship is available as combination of onsite and remote work **All candidates are considered including international students***

*"The internship was a big stepping stone for me - the skills I learned still help me every day as a Civil Engineer."*

*"This experience broadened my understanding of spatial engineering and gave me practical skills I now use in my PhD research."*

**Scan the QR code to Apply**

# 🙏 Thank you and questions.

Get in touch!

**Jade Germantis**

**Program Director, Digital Estate, Innovation & Analytics.**

Campus Operations & Delivery

The University of Melbourne

jadepg@unimelb.edu.au

LinkedIn QR:

## Podcast/Research/Innovation Projects for further interest:

**Podcast: Building Digital Estates: Jade Germantis on Data-Driven Facilities**
https://www.youtube.com/watch?v=V8iN6Beu6jc

TEFMA Webinar- TEFMA Maurey Pawsey Scholarship Insights. Innovation in digital wayfinding technologies and universal design fo | Videos & Movies on Vimeo

**University of Melbourne and Beca - Digital Estate Asset Stocktake**
https://vimeo.com/884574609/5dfb070577?fl=pl&fe=sh

**Article: Pioneering Digital Transformation in Asset Management**
https://www.amcouncil.com.au/pioneering-digital-transformation-in-asset-management/

**Openly Inclusive. A.I. based automated accessibility & inclusion building self-assessment platform.**
https://www.youtube.com/watch?v=wN8mKn8n028
https://openlyinclusive.org/