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Buildings
SHOW
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LMG

# Breathing New Life into Commercial Real Estate Assets

Can retrofit be the 'golden opportunity' for smart building technology?

7 November, 2023

Agenda

Breathing New Life into Commercial Real Estate Assets: Can Retrofit be the 'Golden Opportunity' for Smart Building Technology?

1. Market Challenges

2. What Do Tenants Want?

3. Smart Technology Acquisition Options

4. Creating a Smart Ecosystem
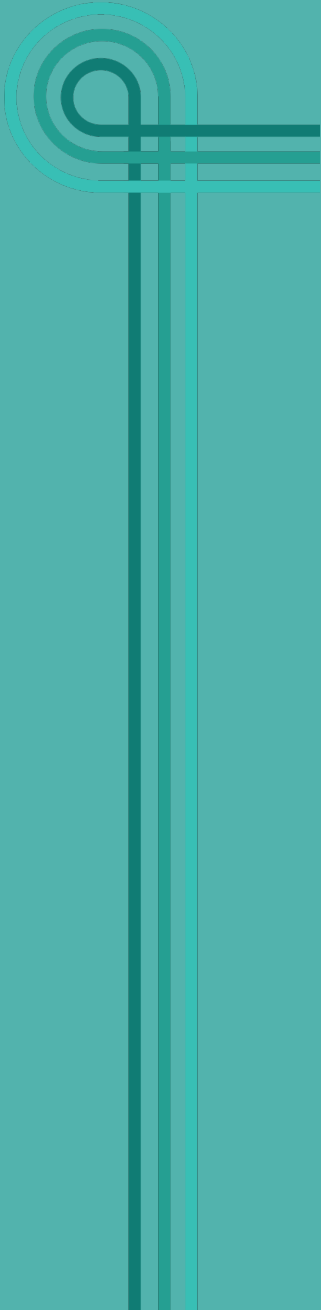
Market Challenges

Spiralling costs and falling demand
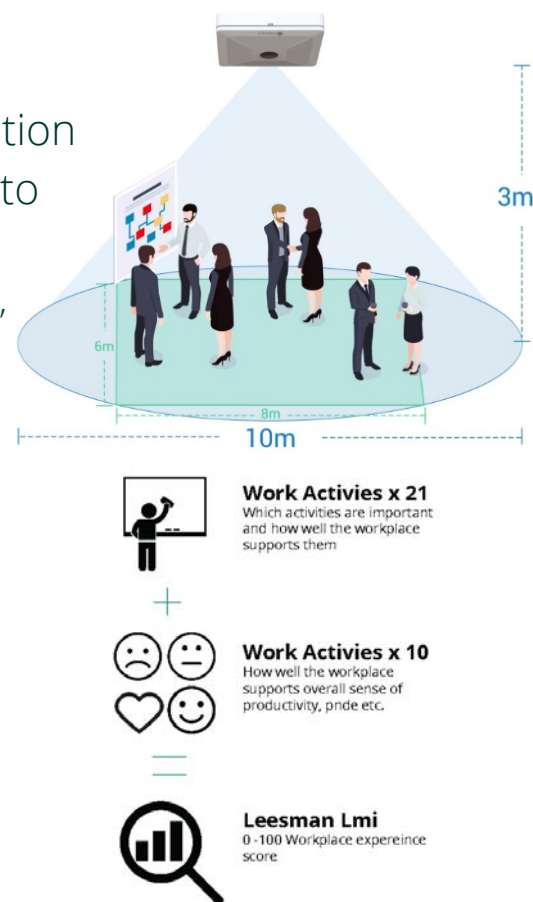
Post-Pandemic Market Forces

Landlords are faced with spiralling costs and falling demand

Realignment of CRE portfolio with tenant needs

- A detailed understanding of occupancy & utilisation is required for enterprise organisations looking to reduce CRE footprint by up to 55%
  - Flight to quality - 'less but better' more collaborative, learning & meeting space
  - Shift to Flex & WaaS
  - Stranded assets - repurposing; where possible, conversion to residential or even urban DCs

Enhanced UX to support a Return to the Office

- LMI of >74 (WFH) - physical & digital
- 5* guest experience - hotelification

3m

6m

8m

10m

Work Activies x 21
Which activities are important and how well the workplace supports them

+

Work Activies x 10
How well the workplace supports overall sense of productivity, pnde etc.

=

Leesman Lmi
0 -100 Workplace expereince score

HSBC's current site, dubbed 'The Tower of Doom' by its employees, spans 1.1 million square feet
SCOTT BARBOUR/GETTY IMAGES

HSBC to halve space for head office

Sam Chambers
Sunday February 26 2023, 12.01am, The Sunday Times

HSBC is looking for a new London office that is less than half the size of its skyscraper at Canary Wharf, as the enduring shift towards flexible working takes its toll on the capital's office market.

HSBC is working with property agents from Cushman & Wakefield to find a new global headquarters of between 400,000 and 500,000 sq ft. The bank's 45-storey tower, dubbed the 'tower of doom' by some of its 8,000 workers, spans 1.1 million square feet. Roughly ten floors have already been mothballed.

Post-Pandemic Market Forces

Landlords are faced with spiralling costs and falling demand

Realignment of CRE portfolio with tenant needs

Improved Occupant Health
- Frictionless UX
- Occupancy control
- Indoor Air Quality

Achieving Environmental, Sustainability & Governance Goals
- Net zero legislation & EPC deadline
- ESG compliance
- Energy cost reduction

| Particulate From Photocopiers | Hand Transmission of Bacteria | Volatile Compounds From Monitors | Dust & Mites From Chairs | Poor air quality as a result of high human density |

What is Net Zero?

Lower Emmissions + Remove Emmissions = Net Zero

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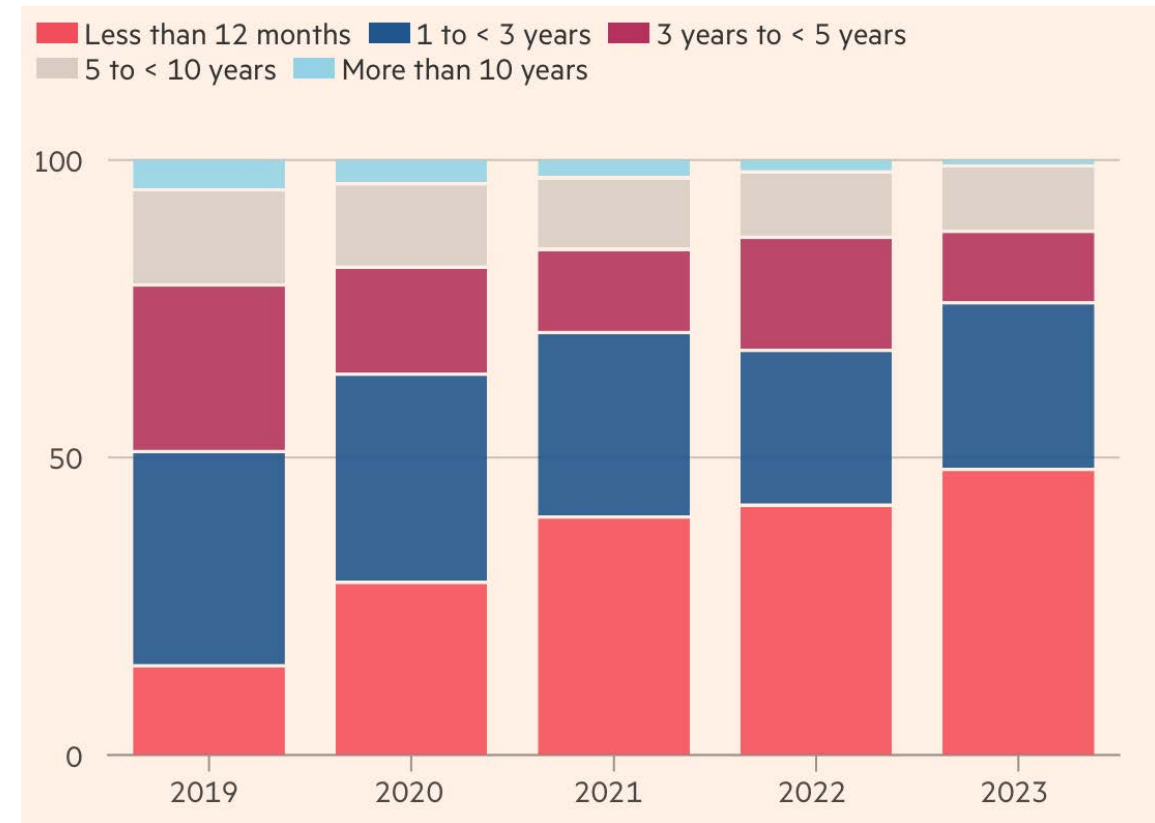
Shift to WFH Shakes up the UK CRE Market

Stunning stats on UK office market - <u>Financial Times</u> Q3 2023

Average lease lengths dropped to **2yrs 10 months** in Q1'23, the lowest level since records began, down from **4.5 years** before the pandemic.

The uncertain economic outlook and changing working patterns has fuelled a reluctance to commit to long-term contracts

Landlords are now having to **work harder** to secure their rent income by providing tenants with amenities.

"We've got to treat them more like customers and give them the quality of service they want as opposed to saying: I'll see you in 10 years'"

Legend:
- Less than 12 months
- 1 to < 3 years
- 3 years to < 5 years
- 5 to < 10 years
- More than 10 years

Y-axis: 0, 50, 100
X-axis: 2019, 2020, 2021, 2022, 2023

Shift to WFH Shakes up the UK CRE Market

Stunning stats on UK office market - Financial Times Q3 2023

50% of leases are now for >1yr whilst long-term leases of **>10 years** have dropped 70% with these contracts making up only **1.46%** of all leases

Long-term contracts remain a favoured option for the very best office buildings which are in high demand, while landlords are having to be more flexible with older buildings.

"Fortunately, all landlords are not the same. GPE for example has been creating spaces much more suited to the 'new world' than others. Likewise, flex offices are doing well and are busy. **It's the traditional landlords who are really in trouble. No-one wants what they are selling."**
- *Antony Slumbers*
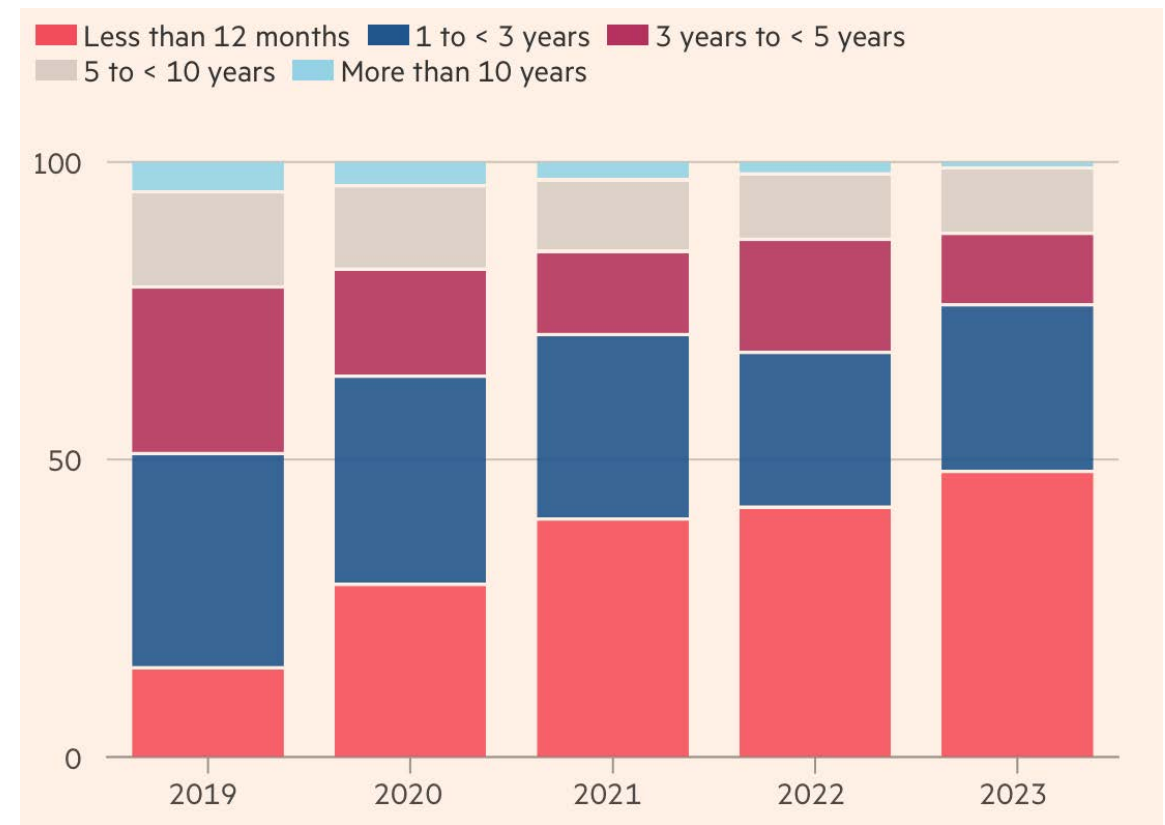
Net Zero 2050 & MEES

The UK Green Building Council estimates that the built environment is responsible for about a quarter of the UK's carbon emissions.

UK Energy Performance of Buildings (England and Wales) Regulations 2012 were updated in 2018 to include the Minimum Energy Efficiency Standards (MEES).

- All commercial properties with an EPC rating of F or G need to be improved to a higher rating

- From 1 April 2023, all commercial rentals must have an energy performance certificate (EPC) of band "E" or better.

- Failing to do so may result in fines of up to **£150,000** for landlords.

- Upcoming proposals to raise the minimum standards to band "C" by 1st April 2027 and band "B" by 1st April 2030.

It is estimated that **8%** of London office space fails to meet band E, **50%** fails to meet band C and over **80%** fails to meet band B.

What Do Tenants Want?

And what will they pay more for?

Value Drivers of London Office Space

Beyond Location report from University of Oxford July 2022 (research sample size:200)

- Flexibility is a key driver of rental value, as is certification.
- Each certification adds £4.10/sqft to rental values.
- Any amenity that limits flexibility reduces rental value – the exception being those ESG related.

A strategy of providing **certification** (SmartScore/WELL), the **high flexibility** & **low investment** offered by the **retrofit** of **smart enablement,** and **sustainable amenity,** in the form of supporting tenant **ESG initiatives,** will provide full alignment with the report's findings.
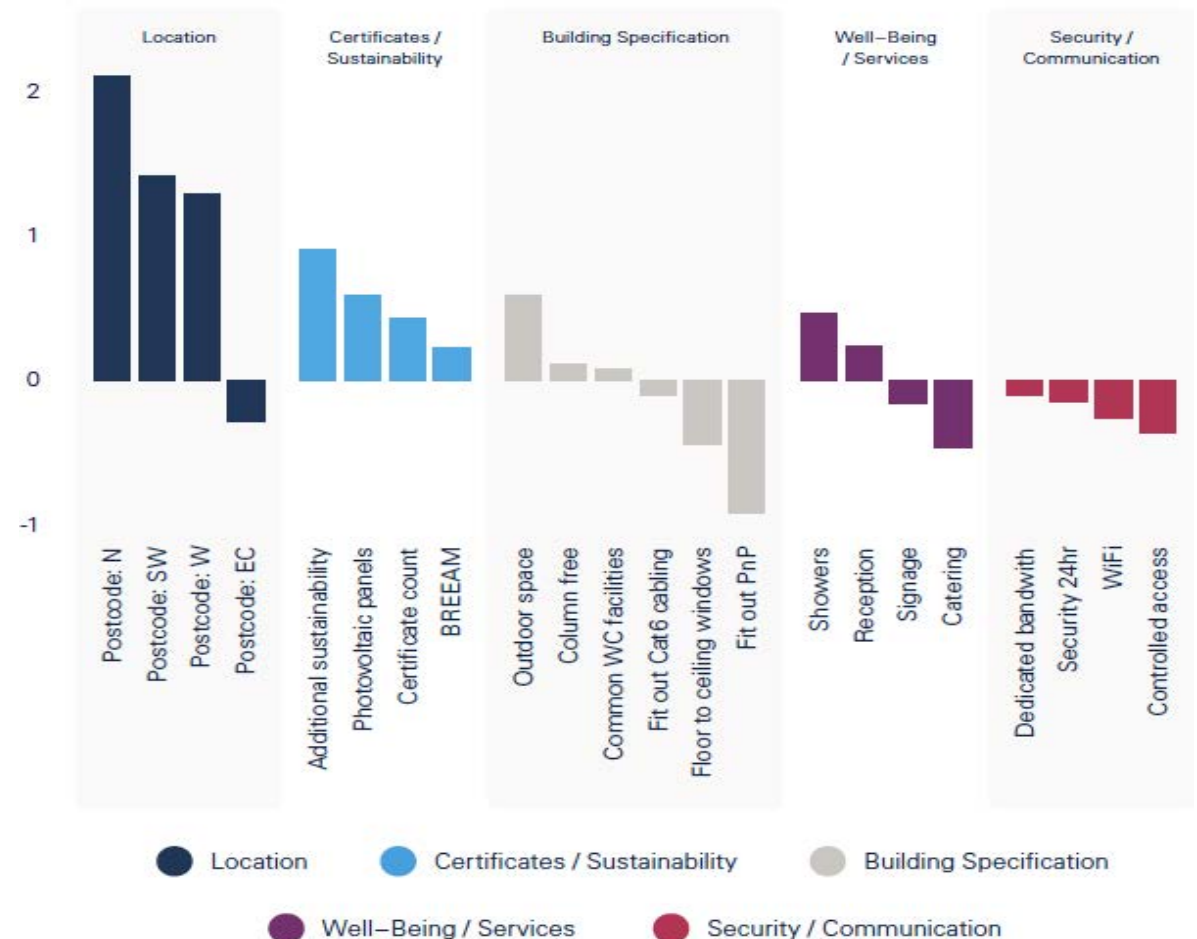
Providing ESG-centric Amenity

Example: Monitoring Indoor Air Quality

Several recent studies on poor IAQ point to issues such as reduction in cognitive reasoning and illnesses like; asthma, coronary heart disease, stroke and lung cancer.
Research has also linked PM2.5 to diabetes and diseases such as Alzheimer's and Parkinson's.

Recent experience

- Carbon monoxide
- PM 2.5

Cognitive Decline, Dementia and Air Pollution - Professor Frank Kelly et al, Aug 2022

"We can make buildings that protect us, but we have to make the invisible visible. We have to tell people about the things they can't see and touch in buildings that are harming them." - *Dr. Whitney Austin Gray, International WELL Building Institute*
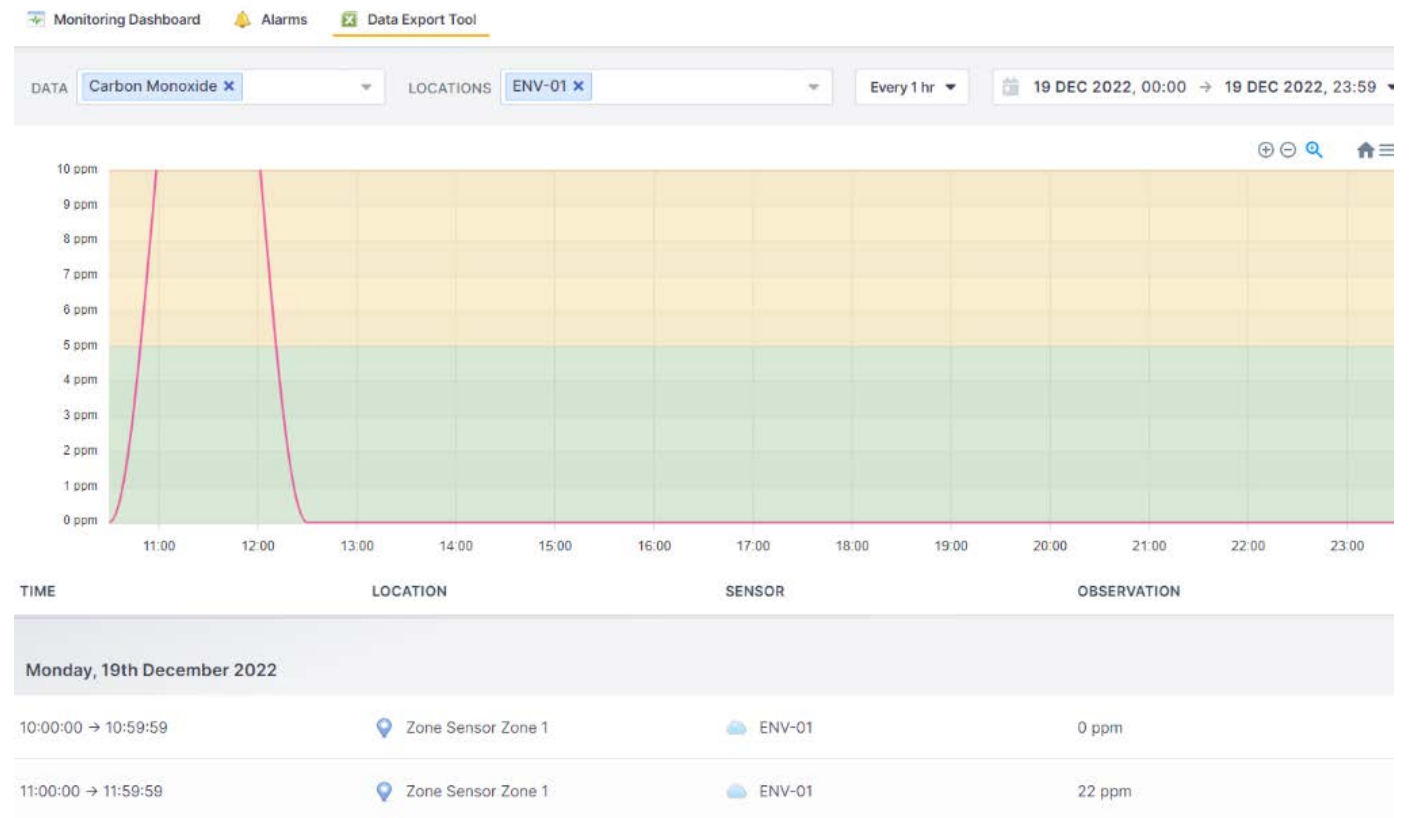
Lessons Learned

The Tenant Dilemma

The inability to implement targeted improvement plans is a **major barrier** to tenants realising smart outcomes due to a lack control and/or influence over their landlord's building systems.

Key Lesson

Tenants requiring smart outcomes need a different, collaborative relationship with their landlords and enlightened landlords (and their systems) must be able to respond.

Technology Acquisition Options

Smart Retrofit Solutions

What is a Smart Building?

TECHNOLOGY	INTEGRATION	DATA & ANALYTICS	OPTIMISATION

A smart building uses **technology** (typically sensors) and **automation** to optimise its operational performance, improve the experience of its occupants and reduce its environmental impact.

It is designed to **integrate different building systems** such as lighting, heating, ventilation, air conditioning, lifts and access control so that they can work together seamlessly.

Smart buildings **collect and analyse data** from various sources in the building to provide insight into energy consumption, occupant behaviour and environmental and system performance.

Both real-time and historic data is used to optimise building operations, improve occupant comfort & safety and **reduce energy consumption**.
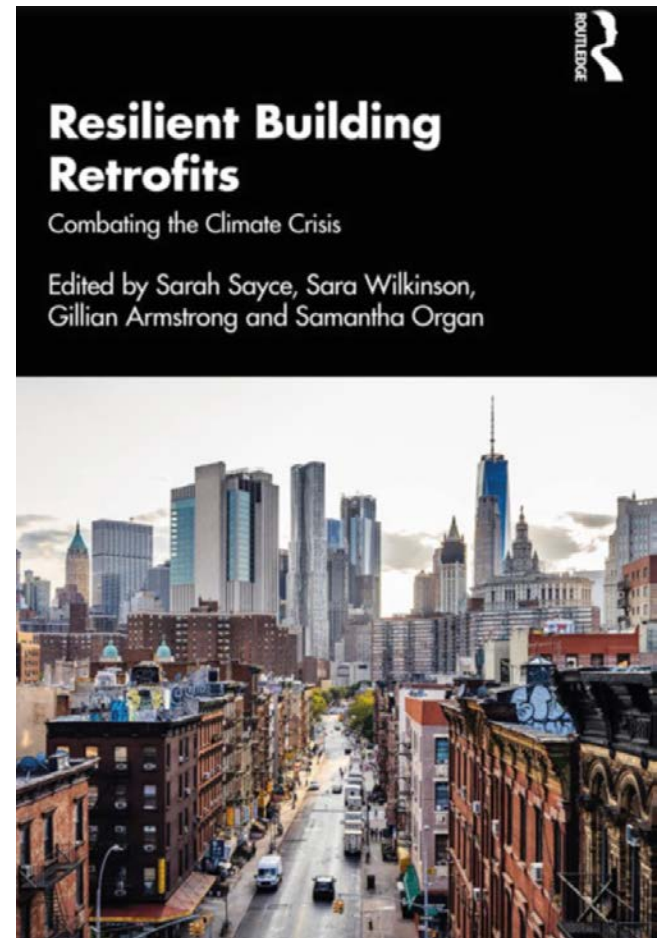
The Road to Smart

15m sqft of London's CRE will require upgrading each year until 2030 to meet MEES legislation and service tenant demand for certification & ESG amenity.

Parking new build - what does an upgrade of smart building technology involve?

1. **Refurbishment** – requires vacancy, full technology upgrade and significant investment. Smart deployment process very similar to new build, using traditional procurement process.

2. **In-situ Retrofitting** – completed with tenant occupation, light touch wireless sensor technology, gateways, and software overlays.

Why retrofit in situ? Cost-effective and better outcomes due to direct landlord/tenant engagement with their MSI and rapid, iterative customisation.

Many smart initiatives on new builds have failed due to; late MSI appointment, poorly defined specification and contractor value engineering.

Resilient Building Retrofits
Combating the Climate Crisis
Edited by Sarah Sayce, Sara Wilkinson, Gillian Armstrong and Samantha Organ

Why Retrofit Smart Technology?

What's in it for landlords and tenants?

- **Landlords**
  - Compliance to MEES legislation
  - Desire to achieve certification (SmartScore/WELL) to attract & retain tenants
  - Operational cost control & reduction
  - Opportunity to offer new tenant services and the ability to respond to tenant demand for data and action, supporting tenant retention & acquisition
  - Phased deployment enables alignment of expenditure & income
- **Tenants**
 - Detailed understanding of workspace utilisation – enables right sizing & activity-based working
  - Enhanced staff health, safety & comfort – better, safer environment than home or public spaces
  - Enhanced ESG performance/compliance
  - Improved, frictionless user experience – increased occupant satisfaction & productivity
  - Reduced operational costs; more efficient use of space, reduced energy & FM costs.
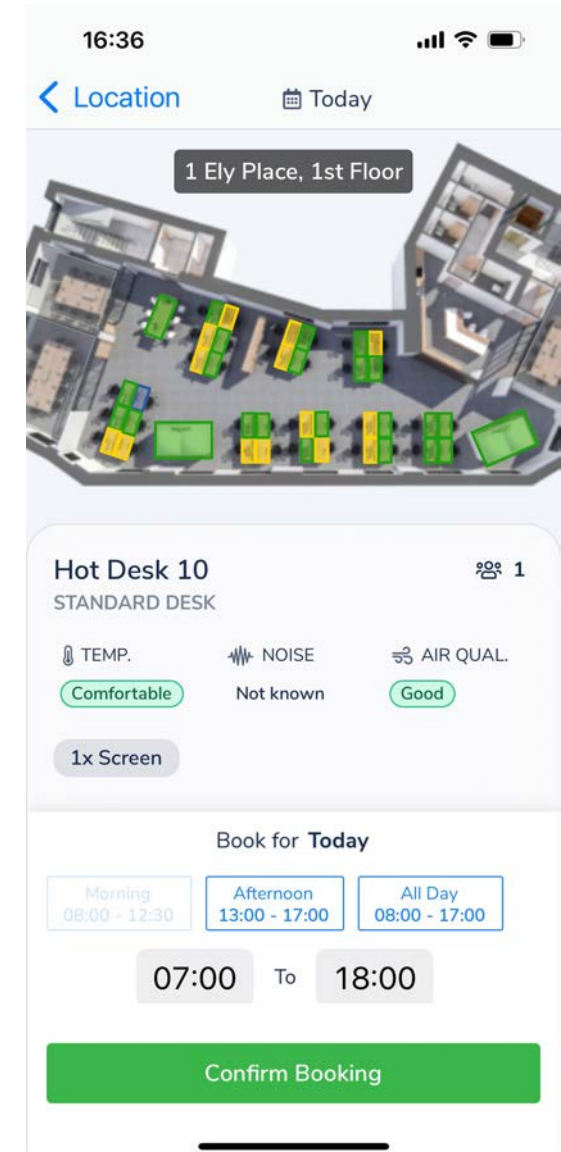
Retrofitting for Landlords

Steps to Achieving Smart Outcomes

- Overlay of smart Building Operating System (BOS) to the building(s) existing systems.
  - Deployment via soft drivers or gateways
  - Consistency across an estate under a SPoG.
- IoT sensor deployment in landlord areas to augment legacy sensor tech.
  - Wireless multi-sensor tech enables rapid, easy deployment. Landlord can be analysing data in days.
  - Phased deployment aligned with landlord priorities: energy, environmental and/or occupancy
  - Cost effective
- MI used to create policies to deliver landlord's desired outcomes using BOS's flow matrix.
- Opportunity to extend systems & control into tenant areas to increase the monthly service charge.
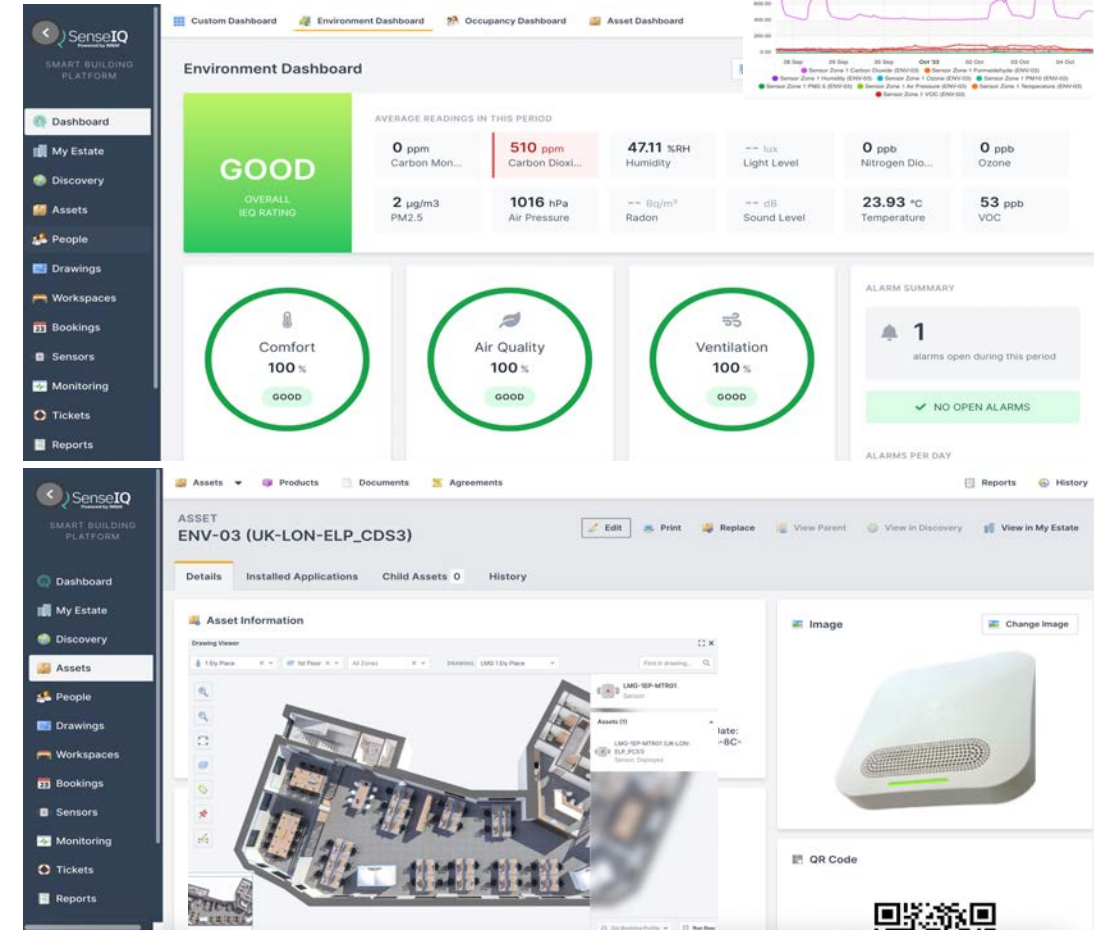
Retrofitting for Tenants

Steps to Achieving Smart Outcomes

- Leverage existing data – surprising what is already available from access control and BMS systems.
- Deployment of IoT sensor network.
  - Wireless multi-sensor tech enables rapid, easy deployment. Tenant can be analysing data in days.
  - Phased deployment aligned with tenant priorities: occupancy, energy, environmental
  - Highly cost effective – starts at <£1,000 per month
  - Cellular backhaul option avoids the need to engage tenant's IT team, offering CRES depts autonomy
- MI is basis to enlist workplace/ESG consulting services to formulate improvement plans and landlord engagement policy.
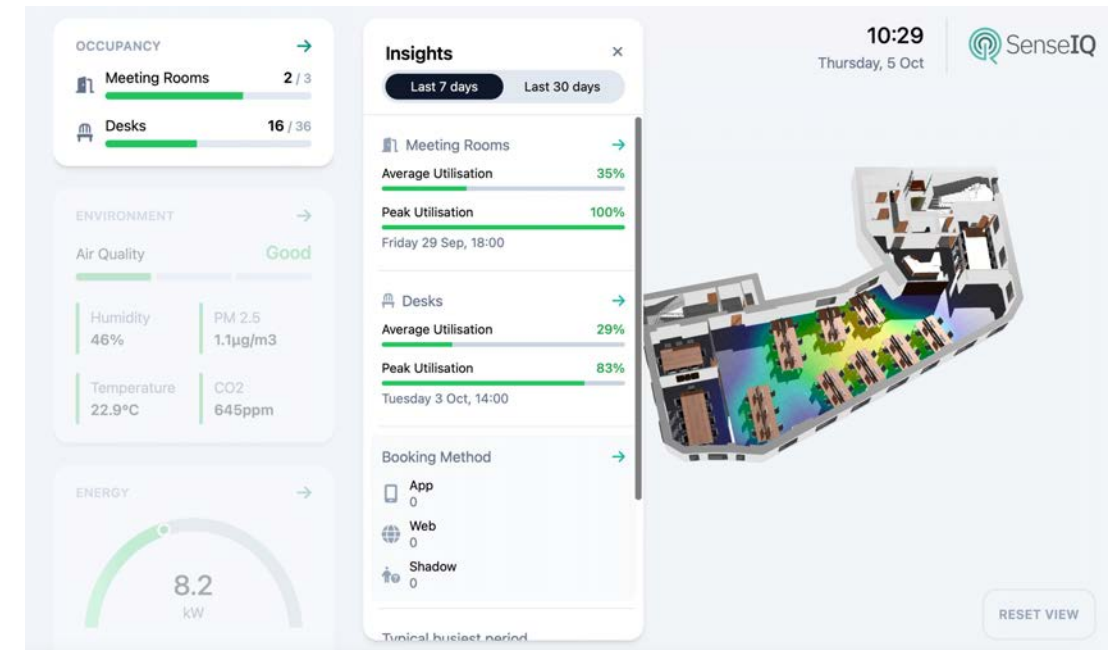
Creating a Smart Ecosystem

Smart Ecosystems vs Vertically Integrated Solutions

Smart Building Architecture
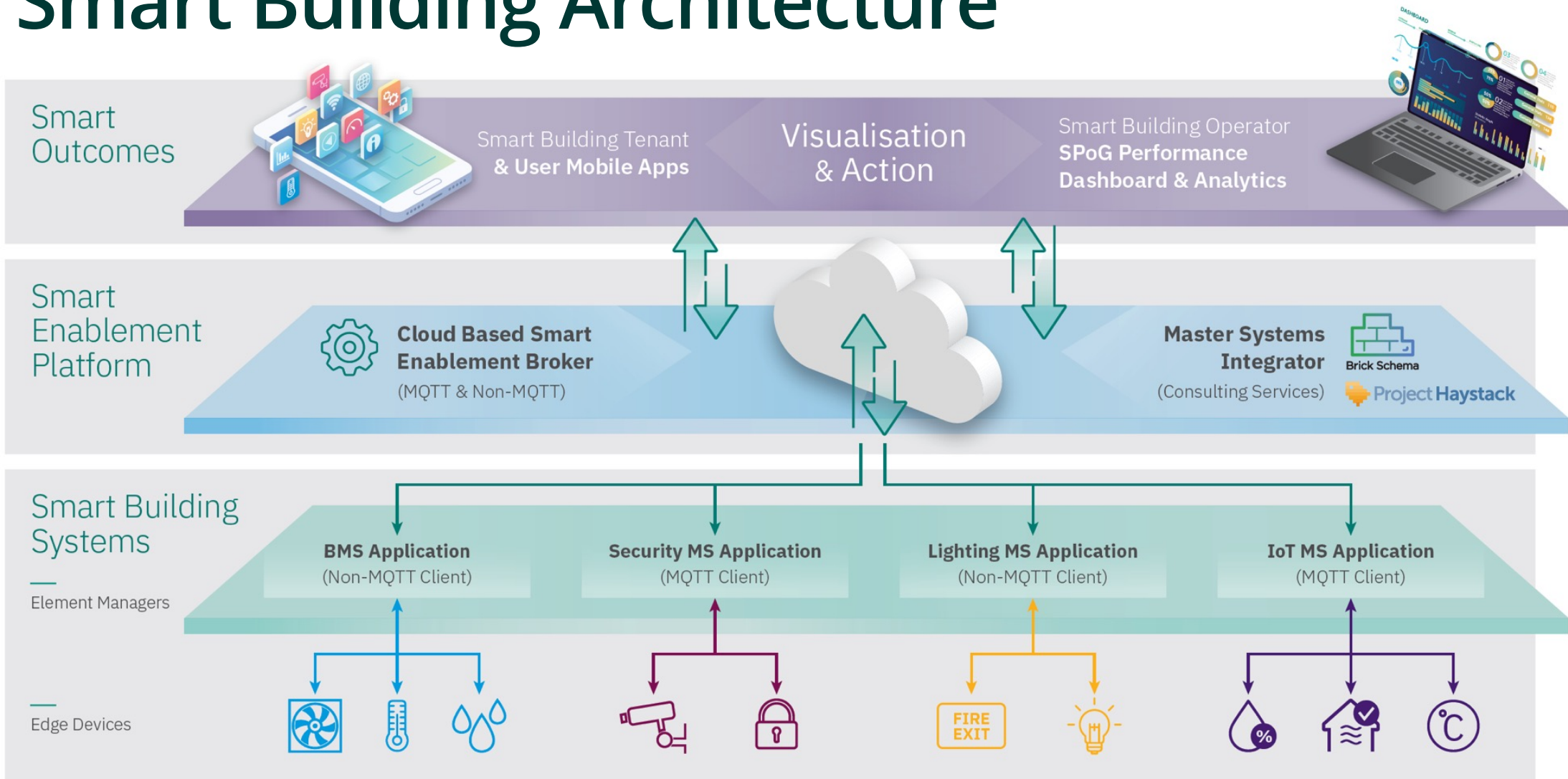
ExchangeIQ: Smart Enablement
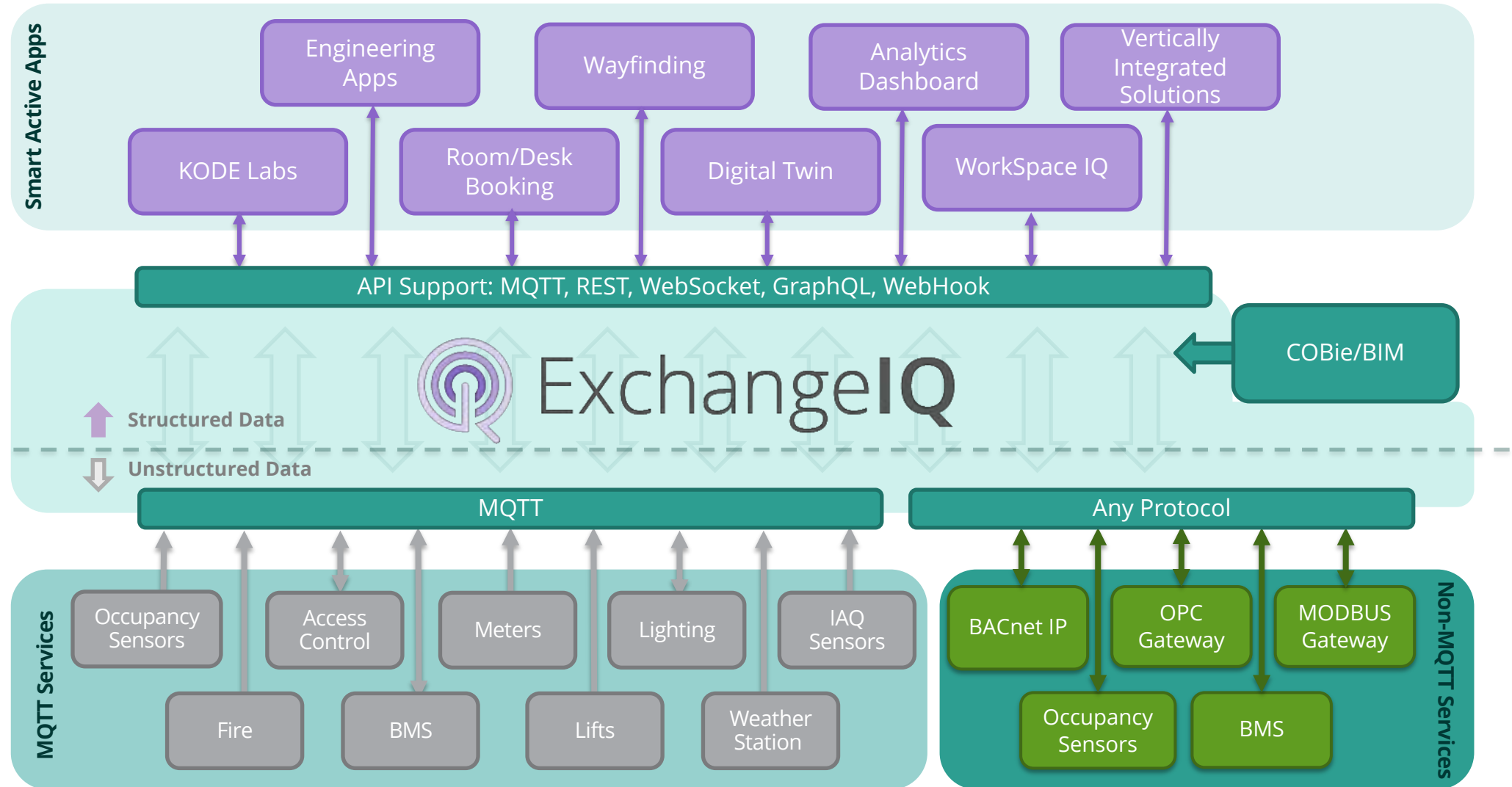
MSI Services

Asset Naming, Tagging & Onboarding Process

Throughout the deployment & testing phases of the project, we ensure the asset repository accurately reflects the specified requirements and communication/control is established.

Stage 1

Pre-Staging, Tagging & Logistics*

LMG supplied assets are configured, tagged (QR) & documented within Monday.com, along with 3rd party CSV files & prepared for import to ExchangeIQ.

ExchangeIQ Import & CAD Drawings

Asset data is imported into ExchangeIQ along with connectivity & CAD metadata. BDNS naming is applied along with asset aliases i.e., BIM, Haystack, Brick, etc.

Stage 2

Stage 3

Device Discovery & Data Verification

Auto-device discovery agent is deployed to verify asset data. Exceptions are identified, investigated and resolved. Device comms is established.

Smart Broker & Node Red Overlay

ExchangeIQ's multi-protocol broker provides bi-directional comms & integration with assets. Node Red functionality enables multi-subsystem cause & effect.

Stage 4

Automating Smart Technology Deployment

Our automated technology deployment solution consists of 3 distinct steps:

- Enables us to scale IoT deployments across the UK and globally via our partners
- Supports consistent delivery of our MSI services and population of ExchangeIQ

1. Plan

The Solution: Generates a plan to implement the outcomes, including a "shopping list" of hardware with estimated pricing.

2. Commission

The Solution: Automates configuration of ExchangeIQ & SenseIQ to deliver the outcomes. Generates work orders to implement the plan. Provides an iPad app for engineers to commission sensors in the field.

3. Monitor

The Solution: Continuously monitors sensor availability, battery levels and data integrity. Sends augmented tickets into the service desk for action when an issue is detected.

LMG Smart Ecosystem

Legend:
- LMG
- Kode Labs
- Genetec/LenelS2
- Simmtronic
- Rendezvous
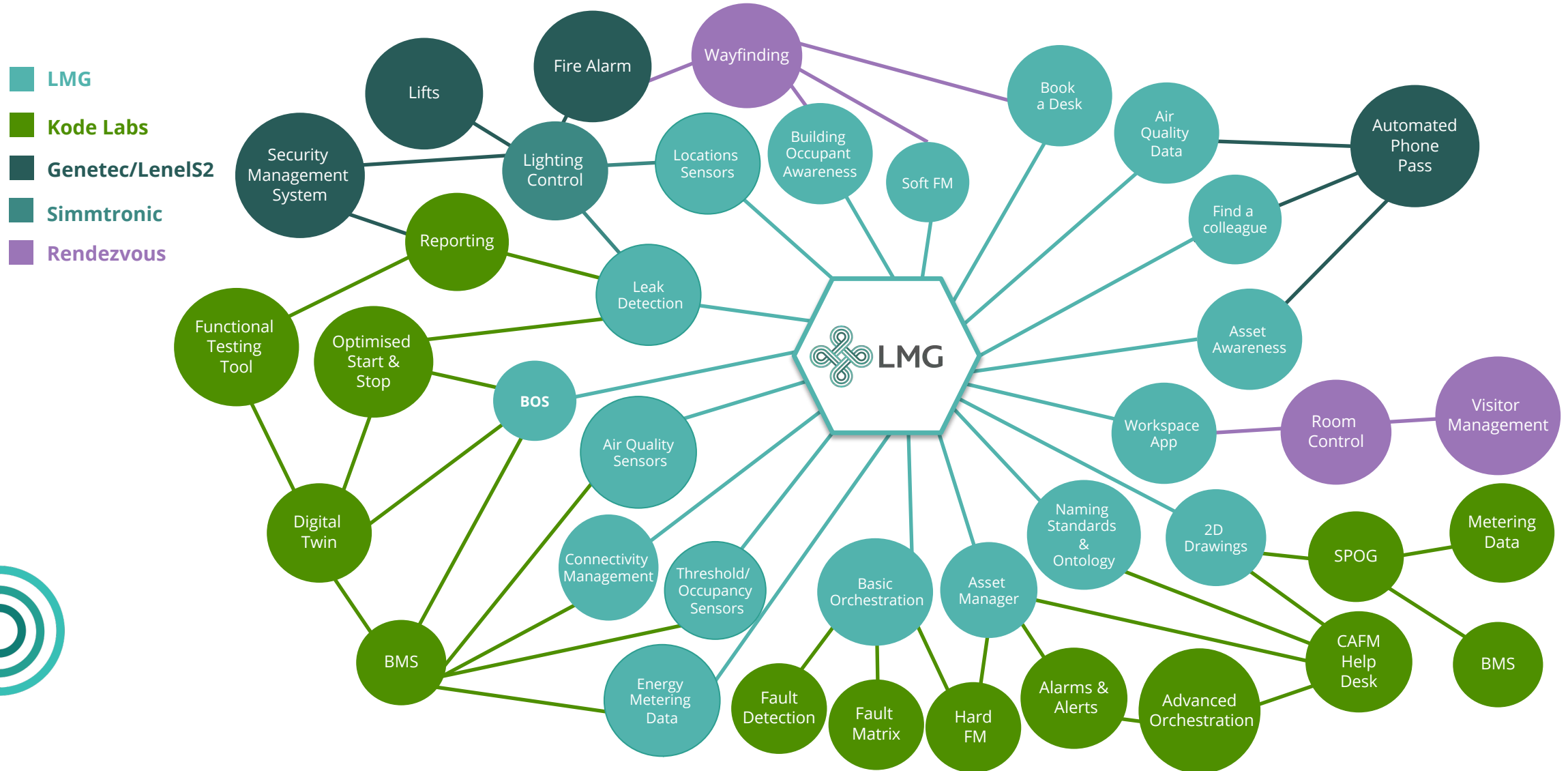
Guaranteed Smart Outcomes

Ecosystem pre-certified to provide guaranteed outcomes at a predictable price.

For Landlords & Workspace Operators

- Energy Management
- Asset Performance
- Financials & Utility Bill Management
- Work Order Management
- Space Performance Analytics
- Global Alarm Management
- Automated Insights
- Tenant Management & Billing
- Digital Signage
- Reporting
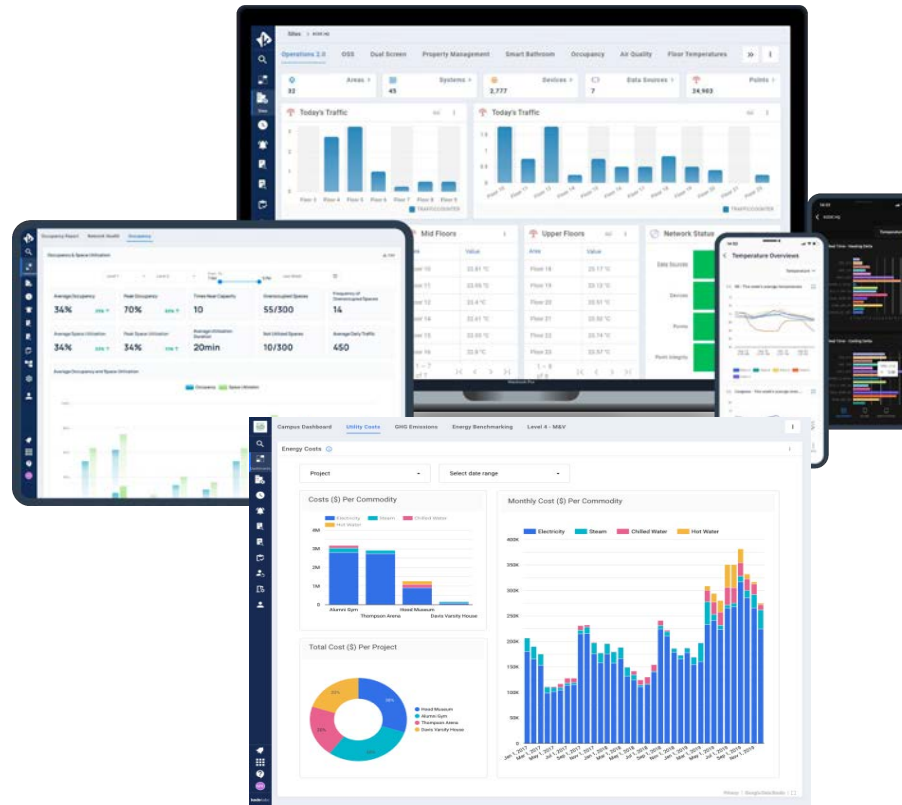
For Workspace Tenants

- **Announcements** Stay Informed
- **Navigate** Find Space
- **Activity** Record Hours
- **Calendar** Manage Your Schedule & Bookings
- **Contacts** Stay in touch
- **Comfort** Controls Your Lighting & Temperature
- **SOS** Stay Safe
- **Reserve** Reserve Spaces
- **Helpdesk** Enter Tickets

Retrofit: A Golden Opportunity

1. QUICK & EASY
Wireless, multi-sensors, cellular backhaul and software overlays ensure data can be analysed in days. Tenants can stay in-situ with no impact to their business & no lost rental income for landlords.

2. COST EFFECTIVE
Transparent, predictable & affordable – starting at <£1,000 pcm. Our ecosystem supports a wide choice of vendor solutions providing flexibility & choice.

3. FLEXIBILITY & PHASING
Functionality, outcomes and costs can be aligned with business priorities. Pay as you lease model for landlords to align costs with rental income.

4. DIRECT STAKEHOLDER ENGAGEMENT
Early and direct engagement with landlords and tenants ensures outcomes are defined and can be rapidly tuned to optimize value without the constraints of the construction procurement process.

5. SMART OUTCOMES
Guaranteed outcomes in terms of certification, regulatory compliance, building performance and occupant experience

6. BENEFITS ALL STAKEHOLDERS
No one gets left behind with our smart solutions benefiting landlords, tenants, service providers and the planet.

SMART OUTCOMES

Energy Efficiency – ESG Performance – Safety – Regulatory Compliance – 5* User Experience – Amenity – Flexibility – Occupant Health

Smart Buildings SHOW

9-10 October 2024 • ExCeL London

We look forward to seeing you in 2024