Technology Community

A Community of IFMA

A NEW ERA IN COMMERCIAL BUILDINGS EFFICIENCY AND SERVICE

Strategy and Case Studies

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TABLE OF CONTENTS

I. Author 03

II. Introduction 05

III. Steps To Ensure Successful Adoption 06

IV. Case Studies

1. Indoor Mapping Platform 07
2. Elevator Maintenance Auditing 11
3. Wireless Water Leak Detection 14
4. Self-Cleaning Elevator Button Covers 17
5. Emergency Lights Testing 19
6. Autonomous Vacuums 21
7. 3D Virtual Tours 23
8. Construction Management Platform 25
9. AI for Preventive Maintenance 28
10. AI Powered Lease Data Management 31

V. Conclusion 33

VI. References 34

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Maya Setchkova is a Managing Director/Global Senior Account Director at Cushman & Wakefield, San Francisco, in charge of a global account spanning all service lines.

She has over 20 years of experience in real estate in the fields of investment, asset management, brokerage, property and facility management, project management, and lease administration.

Maya is passionate about introducing innovative technology to the traditionally conservative real estate sector and has piloted/implemented a large number of new PropTech solutions in various property portfolios.

Maya also serves as an advisor in CSO/CFO/COO capacity to startups in the real estate space.

In her prior roles as VP of Asset Management at Deutsche Asset Management, Director of Asset Management with Gaw Capital, and SVP at

Jones Lang LaSalle in China and Hong Kong, Maya was responsible for asset management of large opportunistic/value-add portfolios and repositioned over $4Bn of assets across all real estate asset classes focusing on sustainability and technology.

A graduate of MIT Sloan, Maya is multilingual and has lived and worked in Sofia, London, Beijing, Shanghai, Hong Kong, and New York before settling down in San Francisco, where she is enjoying the beautiful outdoors, spending time with family, and exploring the vibrant tech scene.

Facility management has evolved over time to satisfy the changing requirements of corporate occupiers.

There is a continuing need to improve efficiency and service levels while minimizing the burden on facility management staff and optimizing costs.

The office work environment has developed significantly in recent years, allowing for on-site, hybrid, or remote working arrangements.

Furthermore, the healthcare industry needed to shift and continue to adopt changes to its ongoing battle with COVID-19.

The change happened at a furious pace, and commercial real estate properties had to keep up.

New technologies, which have been on every facility management team's wish list for years, have dramatically decreased community health threats.

Even the most adamant users and stalwart defenders of traditional methods were forced to accept drastic changes that had to be made in key commercial property sites.

In discovering new commercial real estate technologies, the path to implementation is provided through case studies that include specifics and results, lowering one's risk of adopting these technologies and providing inspiration to embrace technology.

STEPS TO ENSURE SUCCESSFUL ADOPTION

1. Involve Staff in the Design Process
2. Ensure Ease of Use of technology – intuitive, clear, and simple interface
3. Ease of integration with the company's technology stack
4. Socialization and Buy-In at Each Level of the Organization
5. Integration Into the Company Processes
6. Alignment With the Company and Individual Metrics and Goals
7. Training
8. Feedback Loop

1.

Indoor Mapping Platform

CASE STUDIES

Product:

InMapz offers an indoor mapping platform that creates digital twins of commercial buildings to provide critical equipment mapping and wayfinding applications.[1]

How It Works:

- InMapz digitizes buildings' floor plans into interactive maps that display on websites, apps, and touch-screen kiosks.
- Tracks any designated assets.
- Find the location of equipment instantly.
- Mobile app locates shut-off valves and alarms, inside and outside the building.
- Wayfinding directions works like GPS apps on our phone.
- FM staff can share locations of incident tickets with outside contractors or with auditors.

Image Source: InMapz

Case Study:

The software was implemented across 60+ locations; 150 staff members were trained on the mobile app.

Results:

One year later, InMapz had been used in approximately 60 locations. There were 150 users, 11,000 devices mapped, 10,000 map views, 40,000 screen views, and 8,000 survey views.

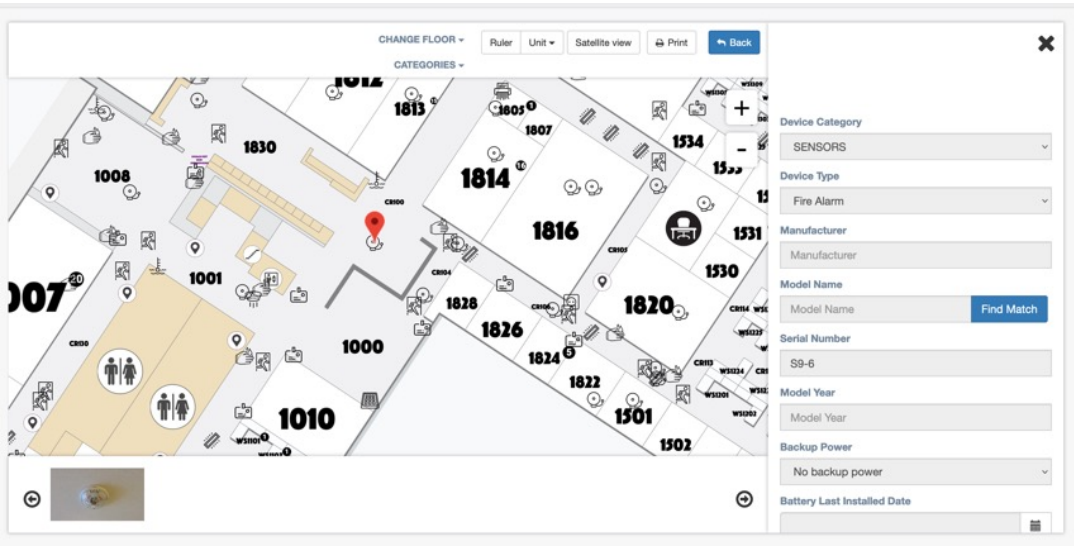

Image Source: InMapz

It increased efficiency by decreasing the time to complete tasks, offered greater accuracy by eliminating human errors, and saved money in the time taken to audit or reach a critical piece of equipment in an emergency.

The return on the investment was 10x based on prior experience of recording similar costs prior to implementing the technology.

The app usage and digital signage for vaccination sites reduced 75% of the labor required.

The Hand Sanitizer QR Code program was installed in 15 locations. Over a one-year period, there were 2,000 QR Codes active, 3,500 QR Code scans, and 500 work orders created.

2.

Elevator Maintenance Auditing

CASE STUDIES

Product:

AuditMate Elevator Maintenance

Features:

- Service Auditing with Auditmate
- Invoice Auditing
- Proposal Auditing
- Compliance Auditing
- Contract Insights

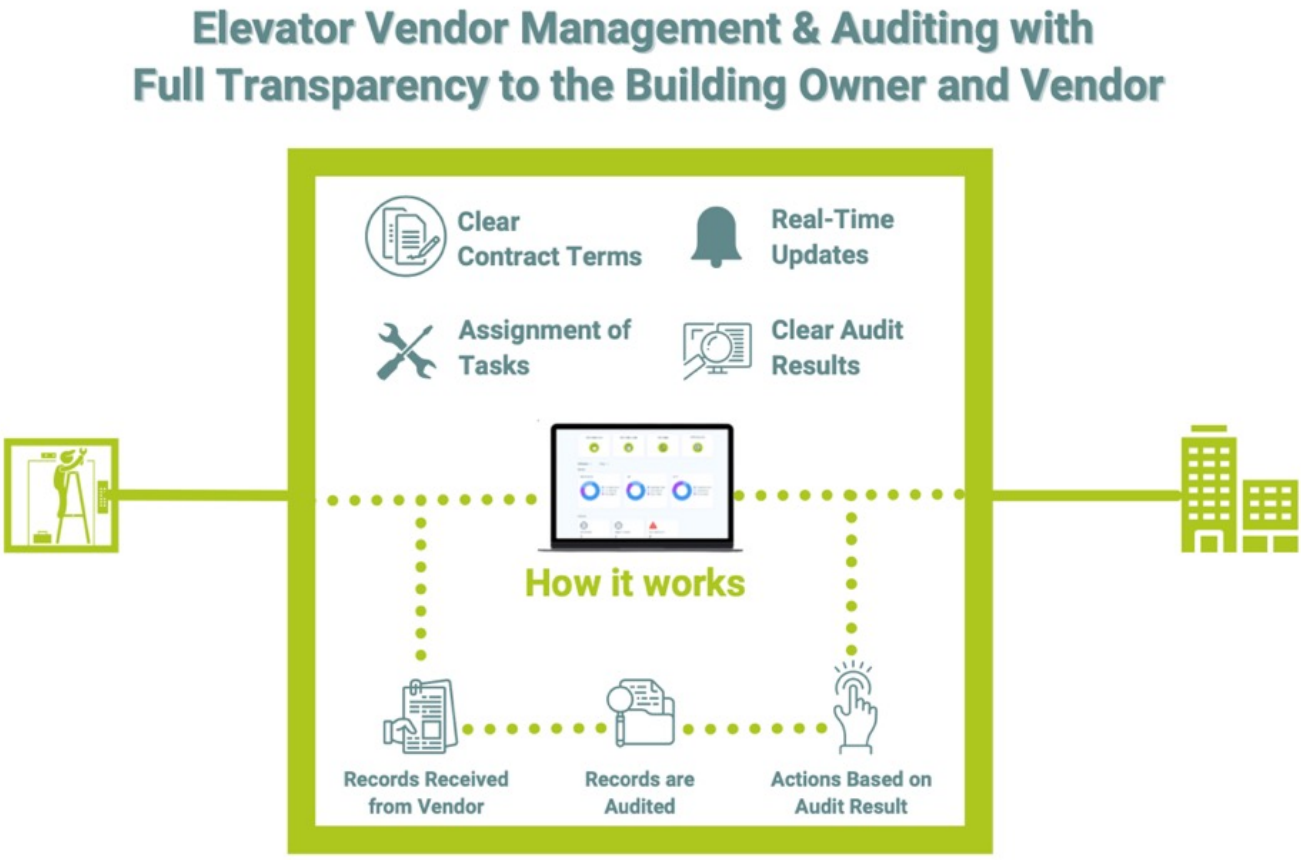

Image Source: InMapz

Case Study:

A free six-month pilot program of AuditMate's Elevator Management Support and Integration into their CARE Software was a success and a long-term arrangement was set in place.

Results:

CARE Software identified the elevator contractor's missing compliance items and discrepancies in maintenance testing requirements for different elevator manufacturers.

In addition, the program determined an elevator contractor who was not meeting the contractual response time requirements.

Thus, there was a 30% increase in elevator PM completion rates over the first six-month period of the pilot program.

3.

Wireless Water Leak Detection

CASE STUDIES

Product:

The Detection Group provides a real-time alert and notification management system that wirelessly monitors and alerts designated key personnel when and where a water leak is detected.

Image Source: The Detection Group

Features:

- Water detection sensors and cables are strategically placed in the manufacturer's recommended areas, based on potential water leak incidents.
- Whenever the sensors come in contact with water, an alert is generated and communicated via phone, email, or text to the Engineering and Maintenance Team or assigned building personnel.

- The wireless system is connected wirelessly through Radio Frequency (RF) in the sub-Gigahertz range that penetrates commercial building materials and floors.

Image Source: The Detection Group

Case Study:

There were five large site installations with approximately 50 sensors installed and 12 building engineer user accounts activated.

Results:

A major water-related incident typically has an estimated cost of $80,000 based on our prior recorded data. Thus, achieving the product's ROI in less than a year.

4.

Self-Cleaning Elevator Button Covers

CASE STUDIES

Product:

The NanoSeptic elevator button covers are self-cleaning surfaces that provide a practical, ongoing solution requiring minimal labor and maintenance.[2]

Features:

- NanoSeptic surfaces utilize mineral nanocrystals which create an oxidation reaction more powerful than an ordinary bleach solution that works 24/7 to oxidize the organic contaminants.
- NanoSeptic products' ingredients, which do not include poisons, heavy metals, or chemicals, ensure the nanocrystals are molecularly bounded to the material.

Case Study:

The NanoSeptic elevator button covers were installed on 20 elevators with 300 touchpoints. Bacteria are prevented from spreading an average of 1,200 times a day through the use of NanoSeptic surfaces.

Results:

There is improved user experience, facility perception, and greater customer satisfaction. Reducing high-touch point cleaning, and redirection of labor to other tasks resulted in the facility's improvement of overall cleanliness.

5.

Emergency Lights Testing

CASE STUDIES

Product:

HEXMODAL technology automatically tests the lighting systems per code and eliminates the manual requirement to perform push-button testing.

Features:

- A simple installation process similar to a standard e-light installation.
- This device does not require Wi-Fi, Ethernet, and activation.

Results:

- HEXMODAL saves facilities, on average, 60% of labor costs to complete the mandated monthly and annual lighting tests compared to what we were spending previously.
- Automatically tests and digitally provides results that eliminate manual reports.
- Provides gateways and free replacement parts.

6.

Autonomous Vacuums

CASE STUDIES

Product:

Whiz is an autonomous vacuum sweeper that helps organizations maintain new cleaning efficiencies.

Features:

- The cleaning process is automated by running preprogrammed routes.
- The AI program is powered by BrainOS with the capability to avoid objects and people in human-taught routes while cleaning up to 15,000 square feet per charge.
- Users can access near-time visibility throughout the cleaning process with the User Connect Dashboard.

Case Study:

A test pilot at an office building and a conference center facility to determine if autonomous vacuums can be efficiently implemented across other sites.

Results:

After the pilot phase, the program was implemented in the conference center, and there were sufficient labor cost savings. The implementation cost of smaller spaces filled with cubicles and individual offices was harder to justify.

7.

3D Virtual Tours

CASE STUDIES

Product:

Matterport's 3D virtual tours are for facility design and layout.

Features:

- Matterport captures existing conditions efficiently and accurately before beginning the design phase, improves collaboration between teams, and optimizes the company's emergency planning and response.[3]
- Creates a visual record of the assets by creating Mattertags to label equipment and digital tags to document repairs, maintenance, and training information.
- Trains Employees and educates new employees on complex facilities and infrastructure virtually.

Case Study:

A pilot project involved a small Tenant Improvement (TI) project with a small testing group. There were four active sites, 40 average views, 15 unique visitors, and 80 Matterport Tags for inventory purposes.

Results:

Matterport improved overall operations through a visible reduction in the contractors' site walks and an improvement of the stakeholders' communication by identifying essential items on a live floor plan. A digital record of the original status of the equipment and the location of the items on record allowed an accurate quick assessment of the items. In addition, staff and customer training sessions were minimized.

8.

Construction Management Platform

CASE STUDIES

Product:

Procore offers a construction management platform, streamlining every process from the pre-construction phase to the project handover.[5]

Features:

- Project Management through real-time visibility by interfacing sites and offices
- Invoice Management ensures real-time access to information among stakeholders
- Design Coordination enables teams to efficiently assign, access, and manage coordination issues in one central location.

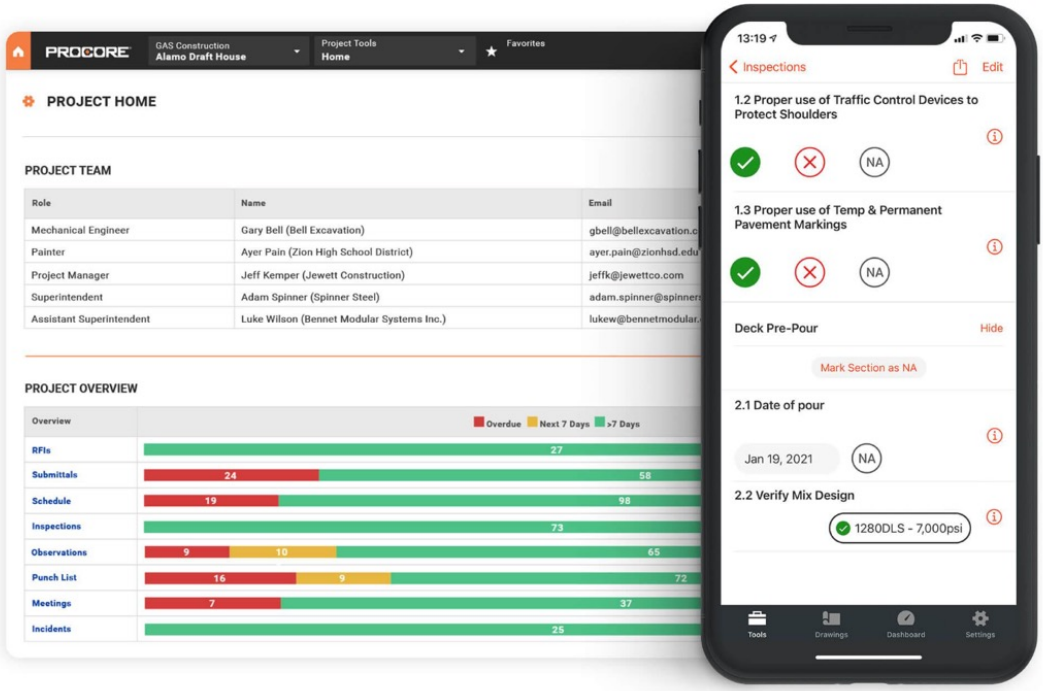

Image Source: Procore

Results:

Teams can stay connected in determining actionable insights required to make smart management decisions while maintaining data security standards. Since Procore standardizes projects, the best practices and workflows are implemented and optimized to ensure consistent quality.

As a software program, Procore assists organizations in avoiding unnecessary costs, delays, and disputes with real-time communication and access to previous reports.

9.

AI for Preventive Maintenance

CASE STUDIES

Product:

MAGE is a tool used to help companies harness the power of Artificial Intelligence (AI) to make predictions.[4]

Features:

- Manage data pipelines for extracting, loading, and transforming raw data from multiple sources and CRM-type tools.
- Data analysis and cleaning
- Machine learning model development and improvement
- Automatic retraining of machine learning models
- Hosted machine learning models and served via API endpoint

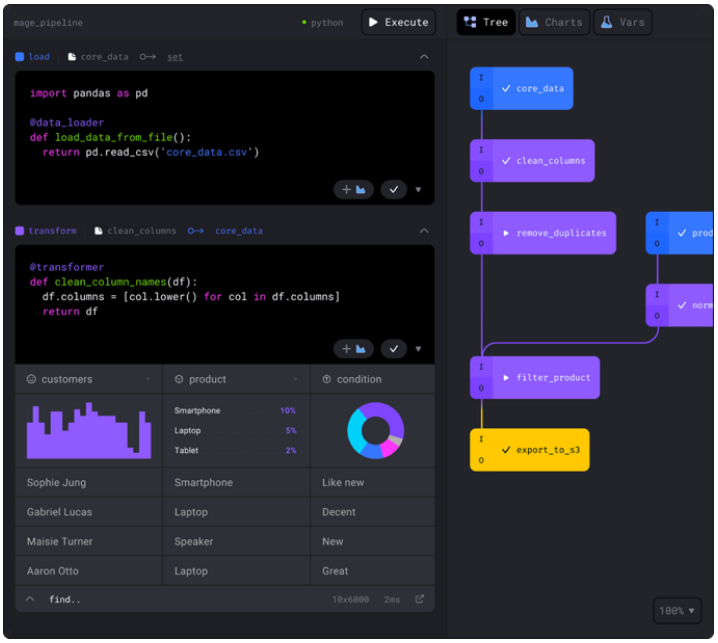

Image Source: Mage

Case Study:

Ran a two-week trial where data was shared, and machine learning models were trained and deployed. After the trial, ongoing support and improvement were provided via a paid service agreement.

Results:

The product provided increased precision of estimates for preventative maintenance of existing assets and reduction of labor hours and costs based on machine-learned predictions of engineer efficiency.

10.

AI Powered Lease Data Management

CASE STUDIES

Product:

AbstractCRE is an AI-powered platform to extract and manage lease-based data with a suite of analytics and collaboration tools.[6]

Features:

- The platform extracts lease-based data
- AbstractCRE analyzes the generated custom reports.
- Connectivity to apps, such as BOX and DocuSign, and programs to track calendars and export to Excel or PDF.

Results:

AbstractCRE was not implemented due to the user's process being too complicated to navigate across multiple systems. Large-scale landlords and investment companies would have more use of this software due to the higher level of standardization there.

Modern technologies are now required to guarantee enhanced productivity and better service standards. To lower implementation risks, some programs have been adopted following pilot programs and post-pilot program analysis.

They lessen expenses, minimize human error, provide emergency access to vital equipment, speed up the third-party deployment of maintenance, and boost an organization's financial performance. Additionally, they raise worker morale, safety, and well-being, which boosts hiring and retention.

The benefits of introducing new technology far outweigh the risks, with an ROI of less than a year on selected new technology, simple deployment, and immediate gains in productivity and service quality.

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