

Innovation Report

PropTech and the Digital Evolution of
Real Estate

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Innovation in the Office Sector

- Innovation in office real estate focuses on digitizing workflows, improving tenant experience, reducing operating expenses, and enabling real-time portfolio intelligence.
- Office innovation is shaped by hybrid work adoption, evolving tenant expectations, and the need for efficient, connected, and sustainable buildings.
- Technology is now embedded across the entire office building lifecycle—from leasing to operations, asset management, construction/CapEx, and ESG tracking.
- Our research uses workflow and inventory mapping to identify where tech adds value and what's missing in the office ecosystem.

Market Trends & Key Innovations

- Hybrid Work Impacts: flexible work schedules, demand for experiential offices.



- Flight-to-Quality: ESG compliance, smart buildings, wellness certifications.



- Digitization: digital twins, advanced analytics, automations across workflows.



- Key innovations: workplace experience apps, IAQ sensors, predictive maintenance, AI-enabled leasing, robotics for inspections.



ROI Drivers for Office Technology

- **Digitizing Workflows & Reducing OpEx**

NOI Growth: AI-driven operating models increase Net Operating Income (NOI) by 10%+ (McKinsey).

Efficiency: Automation accelerates 80% of maintenance tasks, reducing overhead (JLL).

Agility: Real-time data shifts asset management from reactive to proactive.

- **Hybrid Work & Sustainable Buildings**

Prime Premium: Tech-enabled, hybrid-ready offices command a 31% global rental premium (Savills).

Green Value: Certified smart buildings yield a 7–11.6% rental premium (JLL/WEF).

Valuation: Tech-forward assets maintain occupancy, while older stock faces a "brown discount."

- **Tech Across the Lifecycle (Leasing to ESG)**

Value Unlocked: Lifecycle automation is projected to unlock \$110–\$180B in industry value (McKinsey).

Strategic Spend: 81% of executives are increasing tech budgets to capture lifecycle data (Deloitte).

Integration: Ensures seamless data flow from Construction (CapEx) to Operations (OpEx).

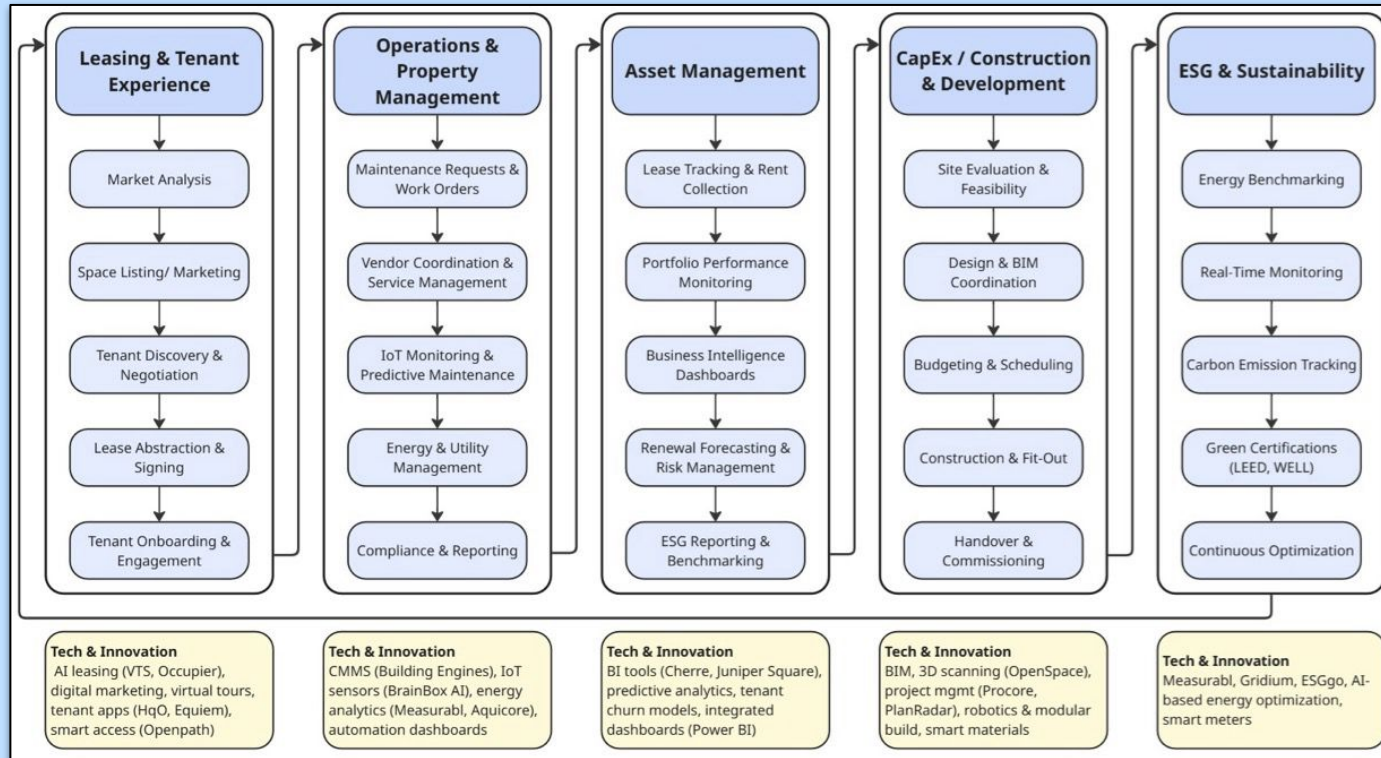
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Workflow Mapping



Solutions Landscape Across the Commercial Workflow

Leasing & Tenant Experience

- Digital leasing pipelines, marketing, virtual tours
- Tenant apps for access, communication, amenities (e.g., VTS, HqO, Equiem)

Operations & Property Management

- Work-order and vendor management (CMMS)
- IoT sensors + AI for HVAC, energy, and predictive maintenance (e.g., Building Engines, BrainBox AI)

Asset & Portfolio Management

- Lease/rent roll tracking and performance dashboards
- Portfolio BI and risk/renewal analytics (e.g., Cherre, Juniper Square)

Construction & Development

- BIM and digital coordination (e.g., Procore, OpenSpace)
- Progress tracking, field collaboration, and QA/QC tools

ESG & Sustainability

- Energy and carbon monitoring platforms (e.g., Measurabl, Gridium)
- Reporting for GRESB, green certifications, and regulations

Coverage Strengths and Gaps

Well-Covered

- Leasing + tenant experience: multiple platforms competing on similar features
- Work orders, maintenance, and basic property management tools are mature
- Construction project management and BIM well served for large projects

Under-Addressed / Gaps

- Mid-market / smaller owners lacking right-sized, affordable solutions
- Limited true end-to-end data integration across leasing, BMS, ESG, finance
- Few tools that connect ESG data → retrofit plans → financing products
- Minimal support for training/adoption of on-site teams (change management)

Leading Investors & Capital Flows

PropTech VCs

Fifth Wall, RET Ventures, Navitas, MetaProp

Corporate VC / Innovation

JLL Spark, CBRE's strategic investments

REITs & Large Owners

co-invest in pilots (tenant apps, ESG, smart-building retrofits)

Accelerators

proptech and climate-tech programs
nurturing early-stage tools

Key Investor
Types



What's Getting Funded (and Why)

AI-driven building operations & energy optimization

- Clear OpEx and emissions savings; fast payback

Leasing + Tenant Experience platforms

- Direct link to occupancy, rent growth, and retention

ESG data & reporting infrastructure

- Essential for compliance, green financing, and investor reporting

Construction & delivery tech

- Reduces overruns and delays; improves quality and safety

PropTech Leaders by Key Workflow

IoT & Predictive Maintenance

Building Engines – Core CMMS for work orders, inspections, vendors

BrainBox AI – AI HVAC control; optimizes comfort and energy in real time

Leasing Platforms

VTS – Central leasing/asset platform; pipeline, comps, deal analytics

Occupier – Tenant-side lease + portfolio management

Asset Management Systems

Cherre – Aggregates data into a unified asset/portfolio view

Juniper Square – Investor/fund management; performance and reporting

ESG Monitoring

Measurabl – ESG platform for utilities, carbon, and disclosure

Gridium / ESGgo – Energy and ESG analytics, building-level insights

Construction Tech

Procore – End-to-end construction management (budget, schedule, RFIs)

OpenSpace – Reality capture; photo-based digital record of job sites

Leading Innovators

JLL

- ❑ ESG + decarbonization solutions built around platforms like Envizi
- ❑ JLL Spark invests in and pilots proptech at portfolio scale



CBRE

- ❑ Integrates ESG platforms (e.g., Measurabl) into property and asset management
- ❑ Central analytics teams standardize data and dashboards for clients



Lendlease

- ❑ Heavy use of digital delivery, BIM, and modular construction on complex mixed-use projects
- ❑ Strong sustainability agenda embedded in development strategy



Brookfield

- ❑ Pilots digital twins and advanced building analytics in flagship towers
- ❑ Experiments with robotics and automation for operations (cleaning, security, inspections)

Brookfield

Leading Innovators

Common Innovation Themes

- In-house data and analytics teams
- Open data ecosystems (APIs, lakes) integrating leasing, operations, ESG
- Repeatable playbooks for piloting and scaling new tech across the portfolio

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“The processes and the tools we use are barely recognizable today relative to where they were just a few years ago.”

Bob Sulentic

Chair & CEO, CBRE

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“Investing in proptech isn’t a nice-to-have; it’s arguably existential to their business.”

Brendan Wallace

Co-founder, Fifth Wall

AI's Impact Across the Commercial Office Lifecycle

Leasing & Tenant Experience

- AI chatbots automate inquiries, scheduling, and lead qualification
- Tenant sentiment analysis predicts conversion likelihood
- Automated lease abstraction & document intelligence

Operations & Property Management

- Predictive maintenance using IoT sensors (HVAC, elevator, lighting)
- Automated work order prioritization
- Smart building controls that autonomously optimize performance

Asset Management

- Rent roll forecasting & renewal probability modeling
- AI-driven churn prediction & portfolio optimization
- Automated KPI dashboards for real-time asset visibility

Energy & ESG Optimization

- AI-based HVAC load balancing to reduce energy consumption
- Automated carbon and utility reporting
- Real-time anomaly detection for compliance events

Challenges and Lessons from Early Adopters

Key Challenges

- **Fragmented Tech Stack:** Multiple systems with poor integration
 - **Adoption Resistance:** Operators & facilities teams slow to adopt new tools
 - **Budget Misalignment:** Confusion between CapEx vs. OpEx for tech investments
 - **Data Governance Issues:** Limited standards around data quality, security, ownership
 - **Cybersecurity Risks:** Growing reliance on connected devices increases vulnerability
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Lessons Learned

- Start with **small pilots**, expand after measurable wins
- Build **cross-functional adoption teams** (IT + ops + asset management)
- Select platforms with **open APIs** to avoid vendor lock-in
- Establish **ROI metrics** upfront (energy savings, downtime reduction, tenant retention)
- Provide **training and change management** to increase adoption

Opportunities and Strategies

Emerging Opportunities

- Predictive analytics for **CapEx forecasting**
- Real-time **occupancy analytics** for hybrid workplace planning
- Tenant experience personalization based on behavior & usage
- Monetization of building data (benchmarks, trends, usage metrics)

Strategies for Successful Outcomes

- Build a **unified data layer** that connects leasing → operations → ESG
- Phase implementations with **clear KPIs** and time-bound milestones
- Use **open-architecture, interoperable** systems
- Partner with PropTech firms for **co-development and pilot programs**

Cross-Industry Inspiration

- **Manufacturing:** Digital twins for performance modeling
- **Retail:** Personalization & customer behavior analytics
- **Aviation:** Predictive maintenance and system diagnostics

ESG, Talent Requirements & Tech Stack

ESG Considerations

- Energy benchmarking & emissions tracking (LEED, WELL, ENERGY STAR)
- Real-time utility monitoring (electricity, HVAC, water)
- Automated sustainability reporting tools
- Smart building controls to reduce carbon footprint

Talent Requirement

- Fluency in data analytics & digital tools
- Understanding of ESG measurement frameworks
- Ability to oversee AI-driven systems
- New emerging roles: ESG Data Officer, PropTech Analyst, Digital Facilities Manager

Recommended Tech Stack

- Leasing & Tenant Experience



- Operations & Property Management



- Asset Management



- CapEx / Construction & Development



- ESG & Sustainability

