The Future of Industrial & Logistics Real Estate

How technology, data, and ESG are reshaping industrial operations, tenant experience, and asset performance.

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Date: 12/5/2025

Asset Class & Thesis

- Warehouses, distribution centers, and last-mile facilities.
- Cold storage, flex industrial, and major logistics hubs.
- Core infrastructure that underpins global and regional supply chains

- Buildings are becoming data-rich, automated, and operationally intelligent.
- Tech adoption is reshaping efficiency, costs, and tenant experience.
- Owners now compete on capabilities, not just square footage

What Is innovation in industrial RE?

Innovation in industrial real estate means using data, automation, and AI to turn warehouses into connected, efficient infrastructure that improves tenant operations, lowers costs and carbon, and unlocks new revenue.

1 **Smart, data-rich buildings**
- IoT sensors and sub-meters track energy and equipment in real time.
- Landlords gain deeper operational visibility.
- Tenants receive actionable efficiency insights.

2 **Automation & robotics in the box**
- Warehouse automation is rapidly expanding with robots, drones, and AS/RS systems.
- AI boosts throughput and optimizes workflows.
- Predictive automation cuts downtime and costs.

3 **Digitized workflows across the life cycle**
- Digitization now spans the full real-estate lifecycle.
- Tools cover site selection, leasing, operations, capex, tenant experience, and ESG.
- Integrated workflows beat isolated point solutions.

4 **ESG & resilience baked into design**
- On-site renewables and EV infrastructure are transforming industrial assets.
- ESG platforms make performance measurable and transparent.
- Buildings become decarbonization infrastructure, not just storage space.

Trends & Key Innovations

Expansion of Logistics Platforms

- Major players are rapidly scaling global industrial portfolios.
- Operations, data, and tenant services are becoming standardized.
- Landlords are shifting toward offering logistics and operational capabilities.

Warehouse Automation & AI

- Robotics and AI-driven systems are rapidly expanding.
- Picking, packing, and throughput are being heavily optimized.
- Data-rich workflows boost accuracy, speed, and labor efficiency.

ESG-Driven Energy Infrastructure

- On-site solar, battery storage, and EV charging are rising.
- Microgrids support power-intensive automation.
- ESG compliance shapes design, operations, and investments.

Key Areas of Concerns

Power constraints: modern warehouses need higher electrical capacity for robotics and EV fleets.

Cyber + data security risks across PropTech systems and tenant integrations

Regulatory pressure: carbon reporting, land-use restrictions, embodied carbon standards.

Key Leadership

Driving innovation, setting industry standards, and shaping the future of logistics, PropTech, automation, and sustainable real estate.

① Industry giants

- Prologis Research, JLL, CBRE, NAIOP, McKinsey – deliver market insights, consulting, and strategies in industrial real estate, supply chains, and sustainability.

② Leading VC

- Fifth Wall, JLL Spark, RET Ventures, Navitas Capital – invest in PropTech, automation, logistics tech, and energy-efficient solutions.

Areas to Monitor

AI-Native Operations Platforms
- **"**Industrial Operating Systems" optimize workflows, automate decisions, and provide real-time insights.
- Boost efficiency, reduce downtime, and enable data-driven facility management.

On-Site Energy & Microgrids
- Energy generation, storage, and microgrids create new revenue streams and cut costs.
- Enhance resilience for power-intensive operations and automation.

Industrial Real Estate + Data Centers
- Integration with data centers and edge computing supports AI workloads and IoT operations.
- Transforms warehouses and logistics hubs into tech-enabled, high-value assets.

Hard Lessons

Point Solutions Without Integration

- Deploying standalone technologies can lead to long-term technical debt.
- Lack of integration creates inefficiencies, duplicated data, and higher maintenance costs.
- Future upgrades become more complex and costly if systems aren't connected.

Over-Engineering for Robotics

- Designing buildings excessively for robotics tenants may exceed actual demand.
- Overbuilt infrastructure increases upfront costs without guaranteed utilization.
- Flexibility and scalability should be prioritized over heavy customization.

Underestimating Tenant Adoption

- Tenants may take longer than expected to adopt new tech or automated workflows.
- Slow adoption can delay ROI and disrupt operational planning.
- Effective training, change management, and realistic timelines are essential.

Challenges to Overcome

Data Silos
- Systems don't connect
- Hard to get one clear view

Modernization Costs
- Upgrades are expensive
- Mid-market owners struggle

Talent Gap
- Need ops + data skills
- Hard to recruit/retain

Slow Adoption
- Legacy workflows resist change
- Limited training capacity

Cyber Risk
- More devices = more threats
- Tenant integrations add exposure

Power Limits
- Automation and EVs overload the grid

Regulatory Pressure
- ESG & carbon rules tightening
- Zoning restricts development

Vendor Overload
- Too many point tools
- Integration becomes a burden

$ Capex

A. Site Analysis and Mapping

B. Construction Management

C. Budget Tracking

D. Sustainability and materials

ArcGIS

Nearmap

PROCORE

AUTODESK Build

PROCORE

Sage

measurabl

Green Badger

INS

Drone Mapping

DroneDeploy

PIX4D

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Opportunities Not Being Fully Addressed

1 Joint Ops Command Centers
- Unified dashboards for owners and tenants
- Real-time visibility into operations, energy, and equipment
- Faster, coordinated decision-making across both parties

2 Supply-Chain ESG and Scope 3 Tools
- Ability to track freight emissions across the full logistics chain
- Automated data capture instead of manual estimates
- Auditable reporting that meets evolving ESG standards

3 Industrial-Focused Tenant Experience
- Built for operations managers rather than office users
- Supports docks, yards, shifts, and equipment workflows
- Improves tenant efficiency and reduces operational friction

4 Connected Logistics and Building Systems
- Integrates logistics system with building systems (HVAC, lighting, power)
- Enables real-time building adjustments based on activity
- Reduces energy waste while improving throughput

5 Standardized Industrial Data Models
- Shared taxonomy for operations, ESG, and leasing data
- Enables clean benchmarking and AI-driven insights
- Reduces integration cost across portfolios

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Strategies for Successful Outcomes

Start Small and Prove Value

Focused Workflow First
- Pilot with one high-impact area (maintenance, energy, leasing)

Quick, Measurable Wins
- Ready-made integrations reduce deployment time

Scalable Framework
- Use the initial success as a template for broader rollout

Partner and Co-Create with Tenants

Shared Pilot Programs
- Test new tools directly in tenants' operational workflow

Transparent Results Sharing
- Share savings, throughput gains, and performance insights

Aligned Problem-Solving
- Co-develop solutions that address real tenant obstacles

Use Trusted PropTech Platforms

Proven Technology
- Select established systems instead of building custom tools

Faster Implementation
- Ready-made integrations reduce deployment time

Lower Long-Term Risk
- Avoid technical debt and ongoing maintenance burdens

ESG Considerations in Industrial Real Estate

ESG considerations focus on how a building uses energy, manages carbon, and impacts its environment and community. Organizations face challenges because data is fragmented, standards keep evolving, and many emissions, especially Scope, are difficult to measure. As expectations rise from regulators, investors, and tenants, owners must balance compliance, cost, and operational needs while still showing real sustainability progress. The industry came up with solutions for the following subjects:

Carbon Tracking & Reporting
- Accurate data enables credible disclosures.
- Helps identify major emission sources.
- Supports measurable decarbonization progress.

ESG Data Dashboards
- Create a single view of ESG metrics.
- Enable portfolio benchmarking.
- Strengthen regulatory and investor confidence.
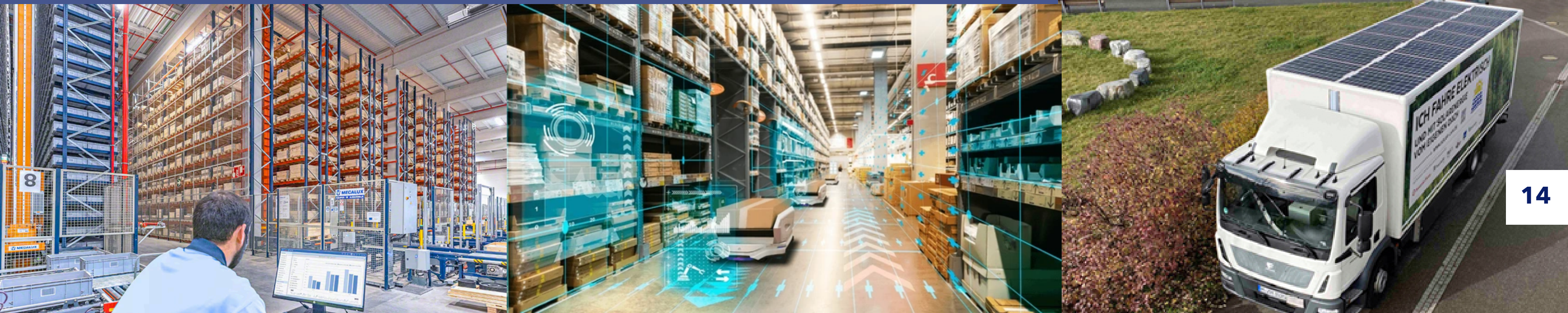
Renewable Energy Integration
- Cuts reliance on high-carbon grid power.
- Supports electrification and resilience.
- Improves long-term sustainability performance.

Sustainable Operations
- Reduce energy waste through efficiency.
- Maintain optimal building performance.
- Lower carbon intensity across operations.

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Summary

Industrial real estate is rapidly evolving from simple storage space to data-driven, AI-enabled infrastructure that supports modern supply chains. Key opportunities come from solving gaps like fragmented data, limited ESG visibility, weak tenant-operations tools, and siloed building systems to enable smarter integrated operations. By embracing modern PropTech and digital operating practices, owners can boost efficiency, support tenant needs, and achieve measurable sustainability outcomes across the asset lifecycle.

THANK YOU