



Building Intelligence

อาคารเก่า สมองใหม่



Executive Summary

Retrofitting existing buildings with digital technologies creates measurable value.

Agenda



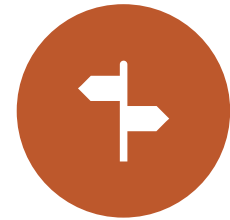
BUSINESS
DRIVERS



TECHNOLOGY
STRATEGY



ROI



ROADMAP

INDUSTRY TRENDS

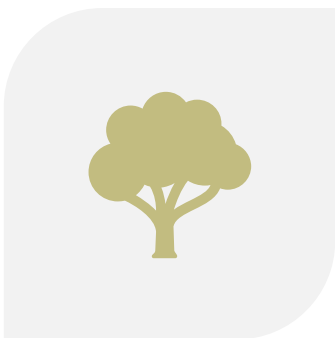
ESG

DIGITALIZATION

AI

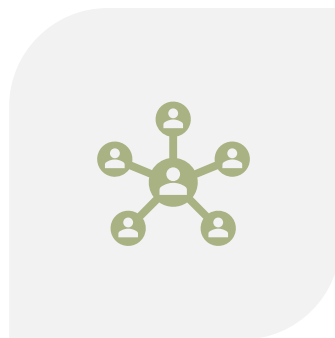
OCCUPANT
EXPERIENCE

ESG



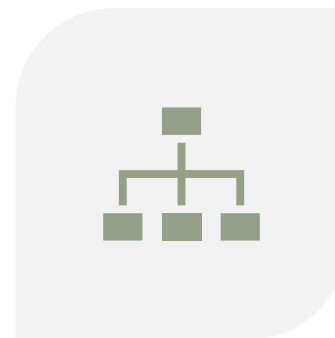
1. ENVIRONMENTAL

(สิ่งแวดล้อม)



2. SOCIAL

(สังคม)



3. GOVERNANCE

(บรรษัทภิบาล)

ทำไม ESG จึงสำคัญ?

ช่วยให้องค์กรดำเนินธุรกิจอย่างยั่งยืน

ลดความเสี่ยงด้านกฎหมาย ชื่อเสียง และสิ่งแวดล้อม

เพิ่มความน่าเชื่อถือต่อนักลงทุน

สร้างความเชื่อมั่นให้ลูกค้าและสังคม

สนับสนุนการเติบโตในระยะยาว



ESG & Sustainability

CARBON REDUCTION AND
REPORTING



Why Existing Buildings Must Transform

Most buildings consume excessive energy and operate reactively.

Key Challenges

ENERGY COST,
AGING ASSETS,
MAINTENANCE
BURDEN,
TENANT
EXPECTATIONS



Owner Perspective

INCREASE ASSET VALUE AND
COMPETITIVENESS.

Facility Manager Perspective



IMPROVE VISIBILITY



CONTROL AND
MAINTENANCE EFFICIENCY

Building Assessment Framework

Structure

MEP

Energy

Safety

Occupancy

Smart Building Vision



Data-driven



Connected



autonomous operations



Smart Building Architecture

SENSE → CONNECT → THINK → ACT



Technology Stack

Sensors

Network

BMS

Analytics

AI

Digital Twin

IoT Sensors



ENVIRONMENT



OCCUPANCY



ENERGY



WATER



EQUIPMENT



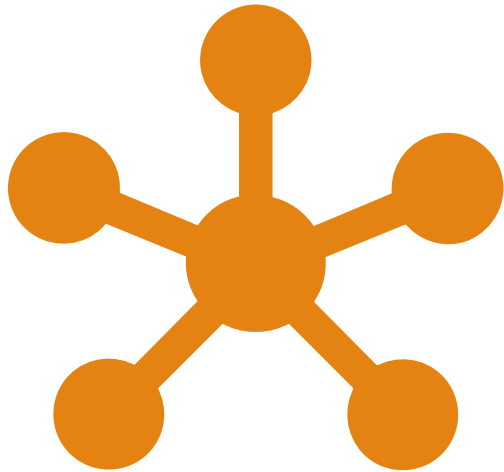
Digital Infrastructure

Fiber Backbone,

WiFi 6/7

IoT gateways, BACnet, Modbus, MQTT.

Cybersecurity



Building Management System

CENTRALIZED OPERATIONAL
INTELLIGENCE

Smart Metering

GRANULAR
MONITORING
OF ELECTRICITY
AND UTILITIES

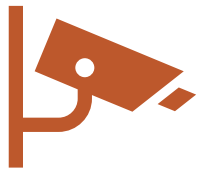
Smart HVAC

OPTIMIZATION
OF COMFORT
AND ENERGY

Smart Lighting

OCCUPANCY-
BASED AND
DAYLIGHT
HARVESTING

Smart Security



AI CCTV



Access Control

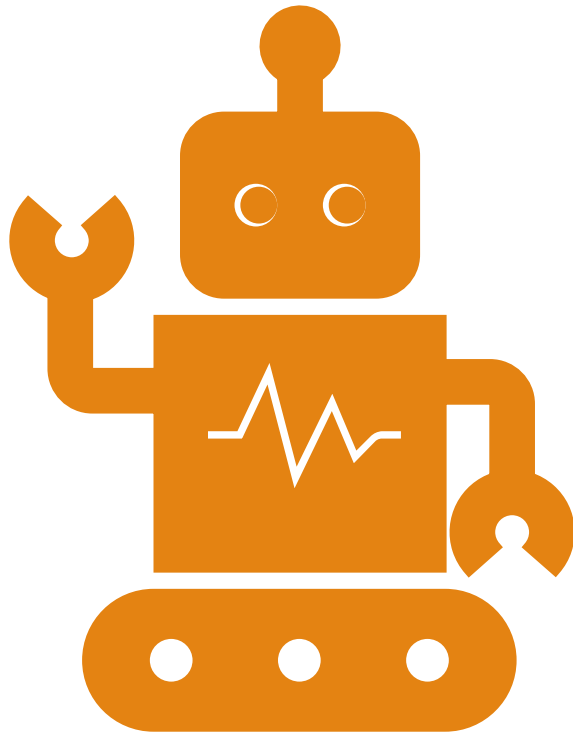


Visitor Management



AI-Driven Operations

FORECASTING, ANOMALY
DETECTION, OPTIMIZATION,
PREDICTIVE INSIGHTS.



Predictive Maintenance

FAULT PREDICTION, PREVENT FAILURES BEFORE THEY HAPPEN, MAINTENANCE PLANNING.

REDUCE DOWNTIME THROUGH CONDITION MONITORING AND AI ALERTS.



Digital Twin

REAL-TIME VIRTUAL
REPRESENTATION OF THE BUILDING

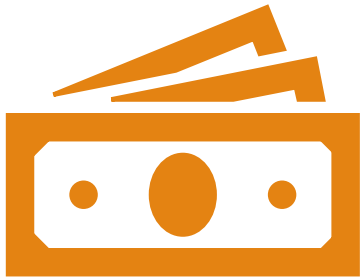
REAL-TIME BIM MODEL LINKED WITH
OPERATIONAL BUILDING DATA



Business Benefits

20–40% energy reduction;
lower maintenance costs;
better comfort.





ROI Framework

CAPEX VS OPEX SAVINGS

Phased investment approach with measurable outcomes.



Transformation Roadmap

PHASE 1 MONITORING → PHASE 4 DIGITAL TWIN



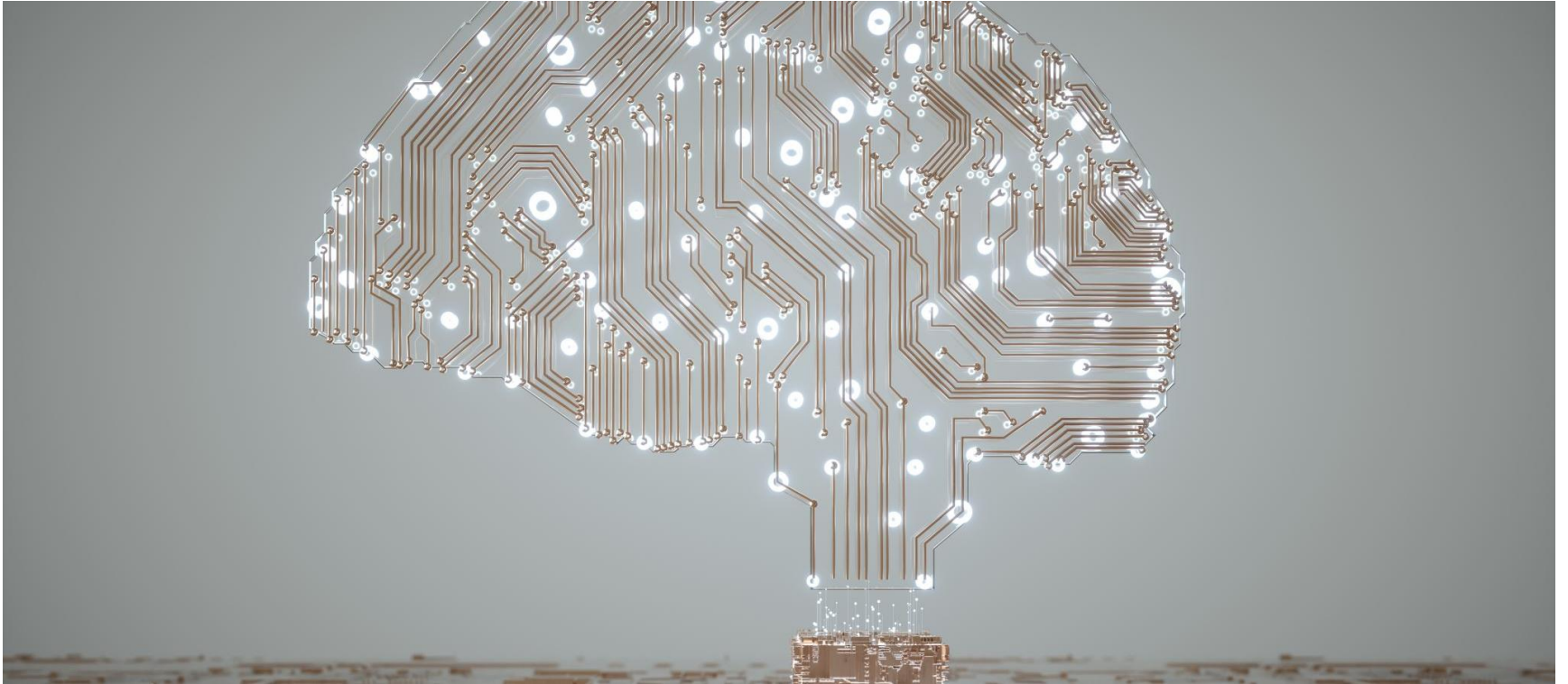
Critical Success Factors

Governance, Data Quality, Cybersecurity



Investment Recommendation

PRIORITIZE HIGH-IMPACT, LOW-RISK
UPGRADES



Conclusion

ADD A DIGITAL BRAIN TO YOUR BUILDING



Q&A