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# SYYCLOPS

### **Transforming Facility Management** with Digital Twin Technology



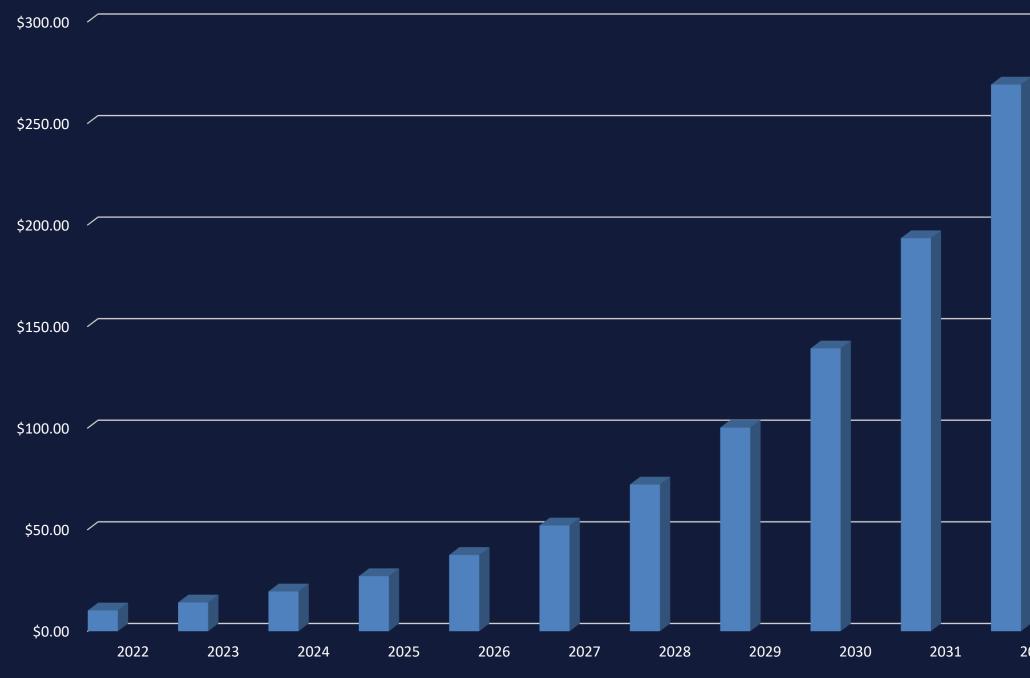
### What is a **DIGITAL TWIN**?

A digital twin is a virtual representation of a physical object, system, or process.



### **EXPECTED GROWTH**

### DIGITAL TWIN MARKET SIZE, 2022 to 2032 (USD BILLION)





**10-year projection:** estimated 260% growth by **2032** 

### Why Now?

- Smart Building deployment for efficiency and decarbonization goals
- IOT Sensor Cost
- IOT Sensor Battery life
- Wide spread adoption of BMS
- Revit and BIM advancements
- Low cost data storage
- Interoperability standards in place
- API's available
- Explosion of competing software

2032

# WE NEED TO GET ADOPT A NEW PARADIGM IN HOW WE OPERATE BUILDINGS?

I BELIEVE THAT EXISTING BUILDINGS ARE THE CORNERSTONE OF CUTTING EMISSIONS **AND DECARBONIZATION** 

WHAT IS OUR FUNDAMENTAL PROBLEM THAT WE ARE TRYING TO SOLVE WITH ALL **OF THIS DATA AND OPTIMIZATION** 

**BUSINESS CONTINUITY** 

**OPERATE WITH COST AND ENERGY EFFICIENCY** 

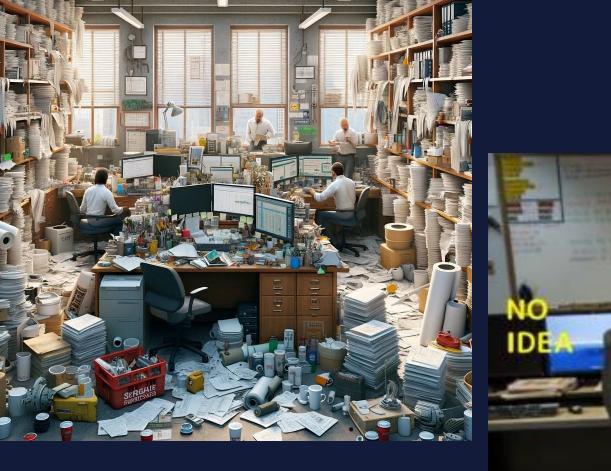


# B

### **BUILDING OPERATIONS & MAINTENANCE TODAY**

- Hand over of information
- Energy emission goals and regulations
- Aging workforce
  - Disparate Data Silos

# DATA OVERLOAD WITH MORE **SILOS COMING**





## **CENTRALIZE YOUR DATA**

(Ontology, IDL, Cloud, Digital Twin)

### **VALUE PROPOSITION OF A DIGITAL TWIN**



### **CENTRALIZE YOUR DATA:** As

new software and equipment are introduced into your ecosystem, your data becomes decentralized. This leads to complete inefficiency



**REDUCE RISK:** Instantly access maintenance disparate data silos. Identify and address faulty system information. Predict repairs proactively. Data fidelity, Insurance policy



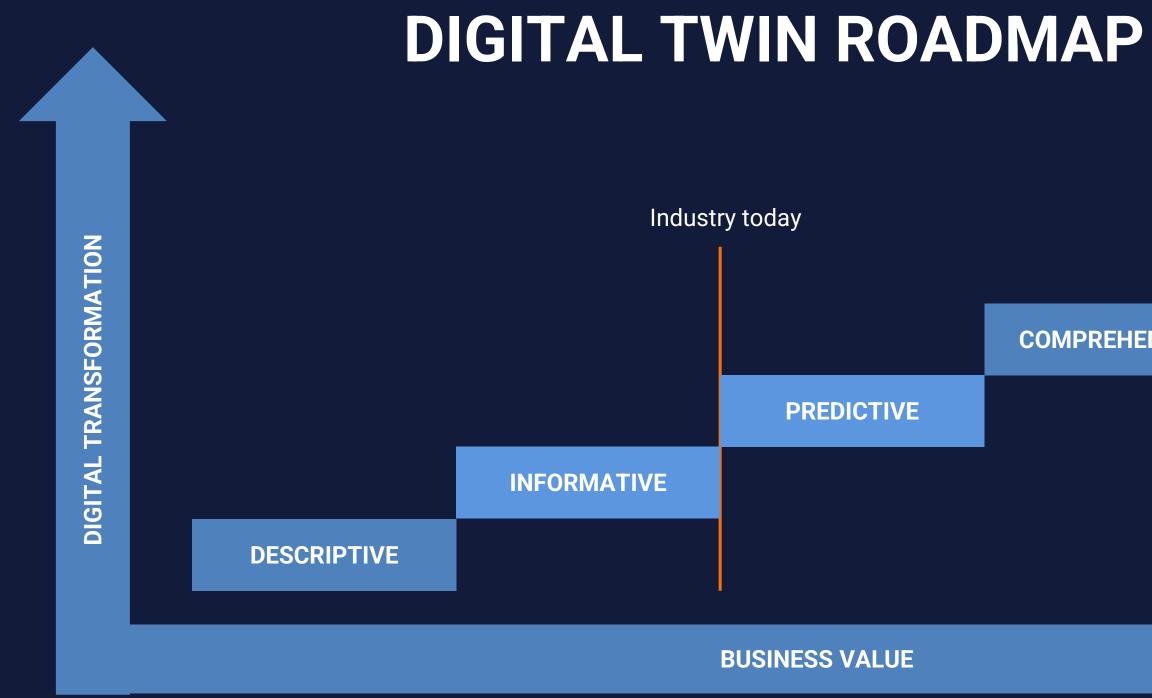
**EMPOWER STAFF:** Co-pilot for your office and field staff. Close generational knowledge gaps.





**IMPROVE FORECASTING:** Business continuity, Perform capital expenditure planning with greater fidelity, fewer surprises.

**CONTROL COSTS:** Reduce the time to find model numbers and operational manuals. The single source of truth. Find efficiencies and prioritize maintenance dollar.



Source: Verdantix – Smart Innovators: Digital Twins for Buildings June 2020

### **AUTONOMOUS**

### COMPREHENSIVE



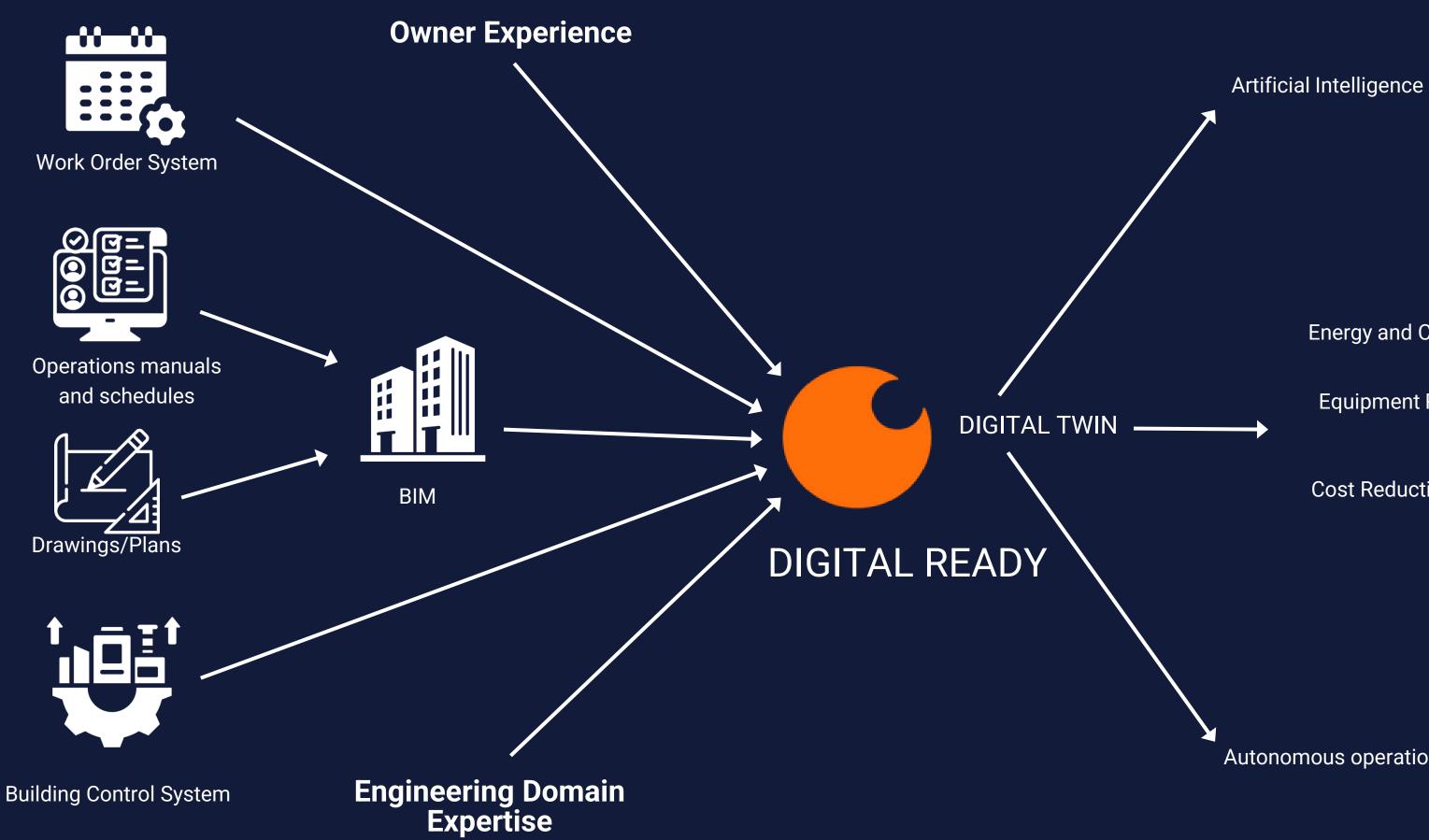


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### THE SOLUTION

Dynamic realtime data with a navigable static model based on a COBIE ontology





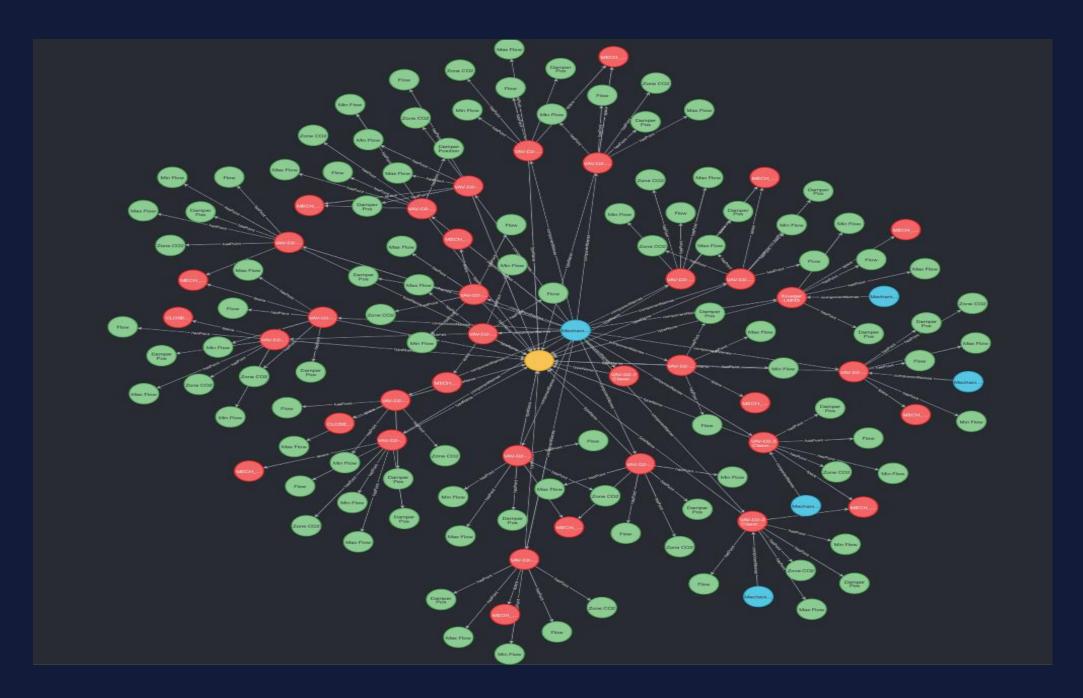
### **Energy and Carbon Footprint Reduction**

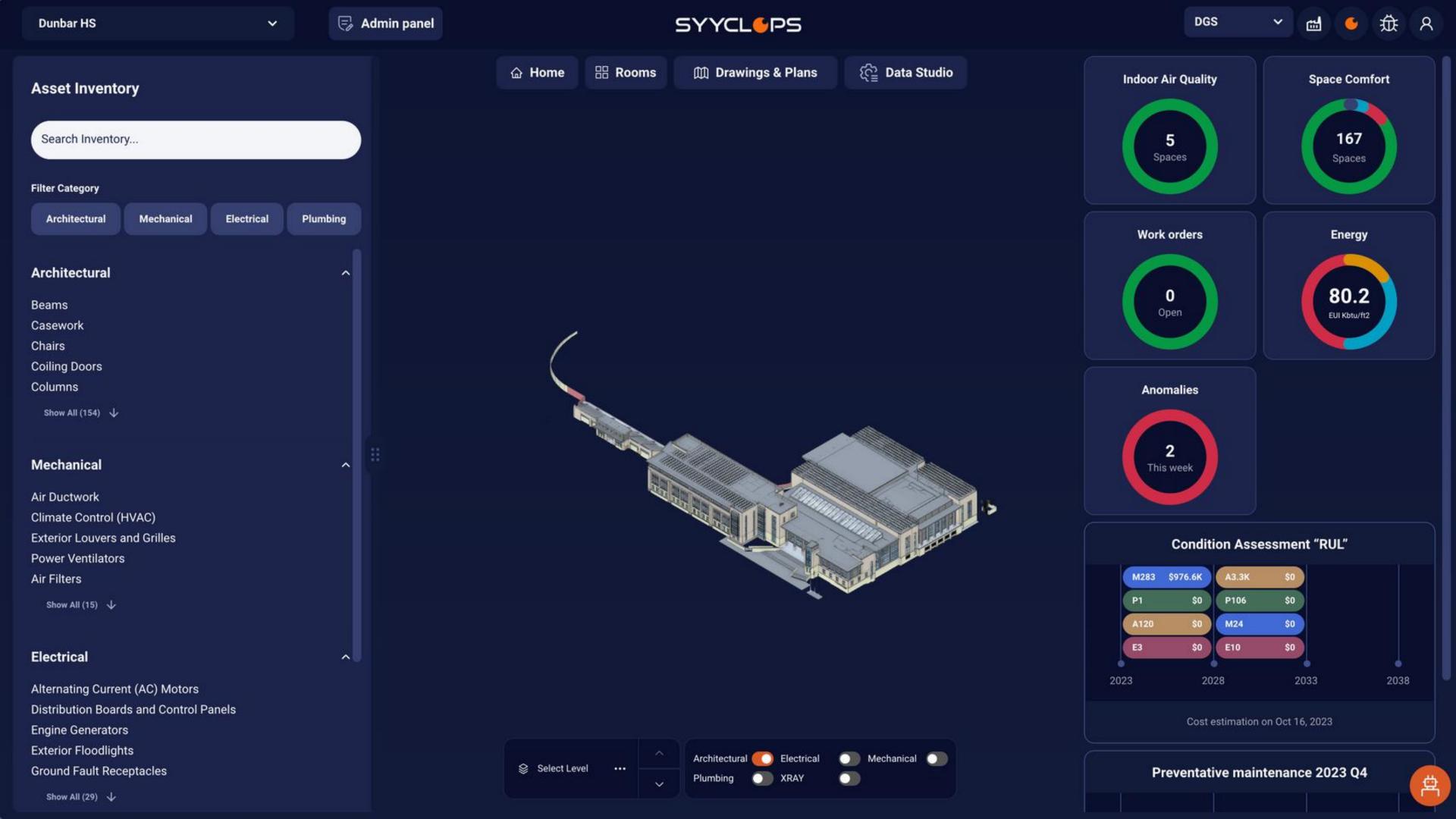
Equipment Reliability and Breakdown Predictability

Cost Reduction in Full Scale Operations

Autonomous operations

# COBIE ONTOLOGY AND THE KNOWLEDGE GRAPH





### Thank you



### Contact Us

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