

TCC TECHNOLOGY GROUP



FROM APPLIED INTELLIGENCE TO REAL IMPACT  
Driving Tangible  
and Sustainable Outcomes

**Dr. Thiti Vacharasintopchai, CISA**  
Director - Smart Solutions, TCC Technology

## About Me

D.Eng. (Structural Engr, AIT 2007)

M.Eng. (Structural Engr, AIT 2000)

B.Eng. (Civil Engr, Chula 1998)

ISACA Certified Information Systems Auditor (CISA)

ATSI DX expert, funded by Thailand's NBTC

28 years in construction

18 years in tech management

16 years in real estate

6 years in university

3 years in healthcare



E-Business Card





# Smart Cities hold the Key to sustainable development

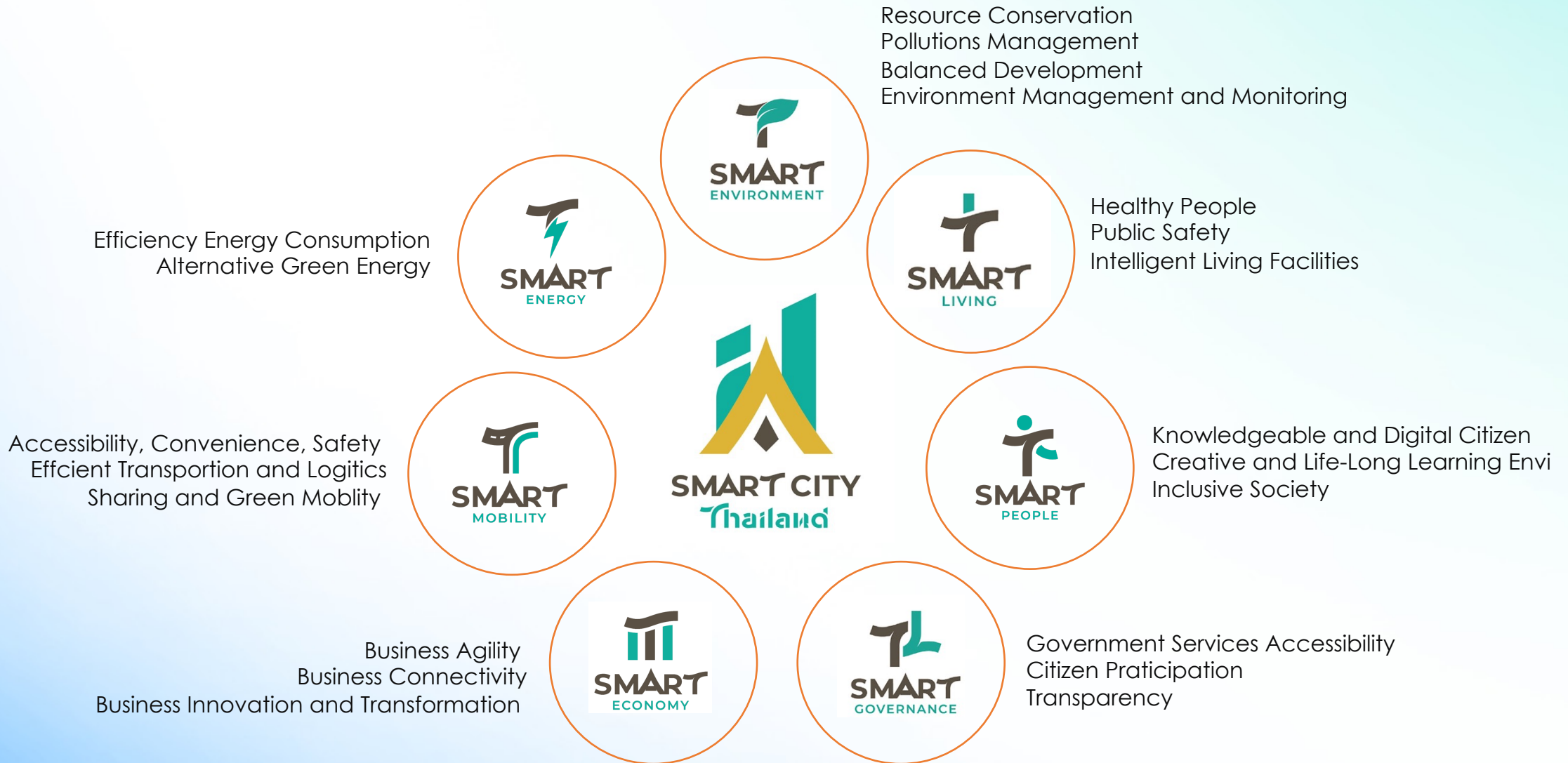
*Ms. Armida Salsiah Alisjahbana,  
Executive Secretary of the United Nations  
Economic and Social Commission  
for Asia and the Pacific (ESCAP)*

## UN sustainable development goals



**Inclusive adoption  
Technologies = enablers**

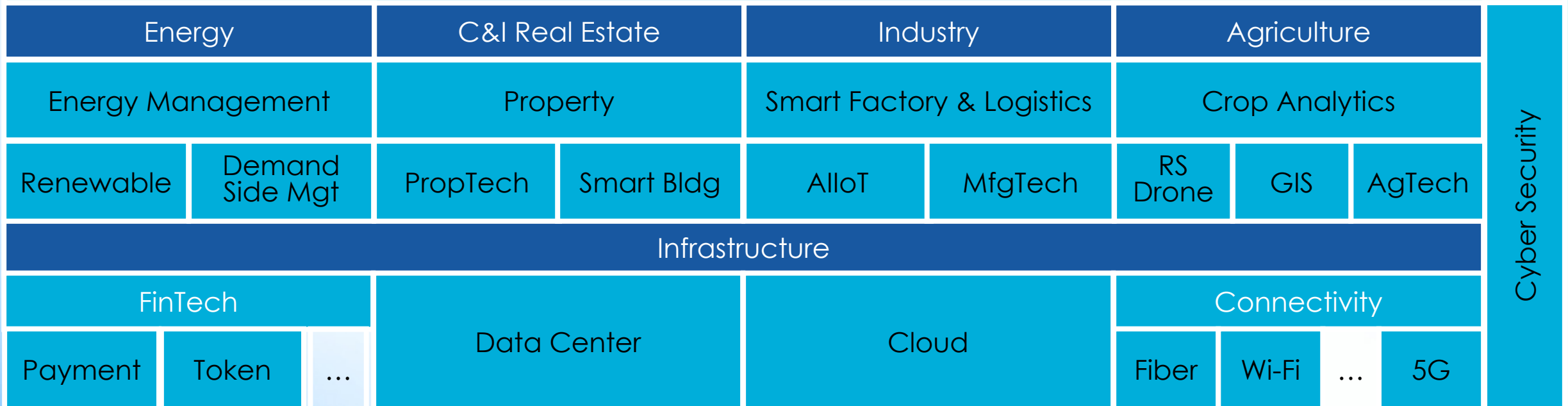
# Desired Outcomes | Opportunities



# TCC Technology Group | Smart Solutions Portfolio

Sustainable Business

AI | Gen AI | Digital Twins | Data-Driven Culture

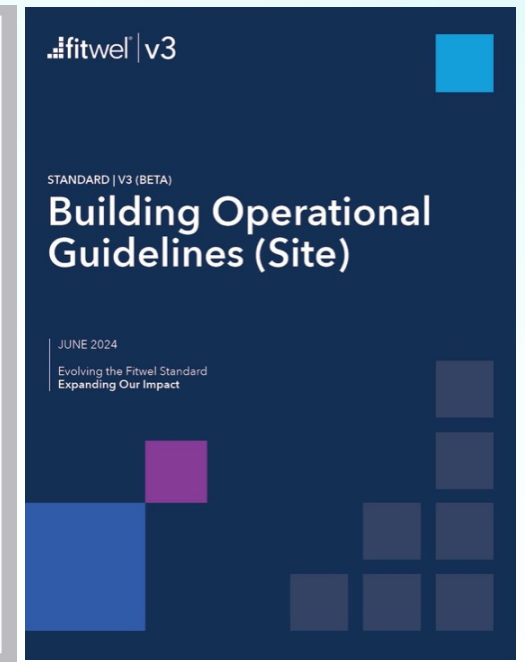
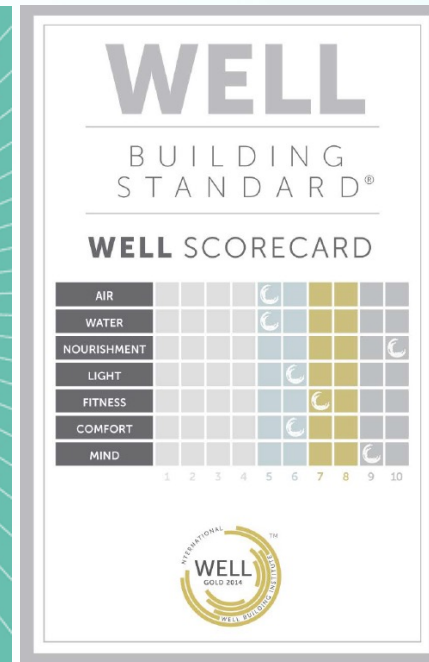
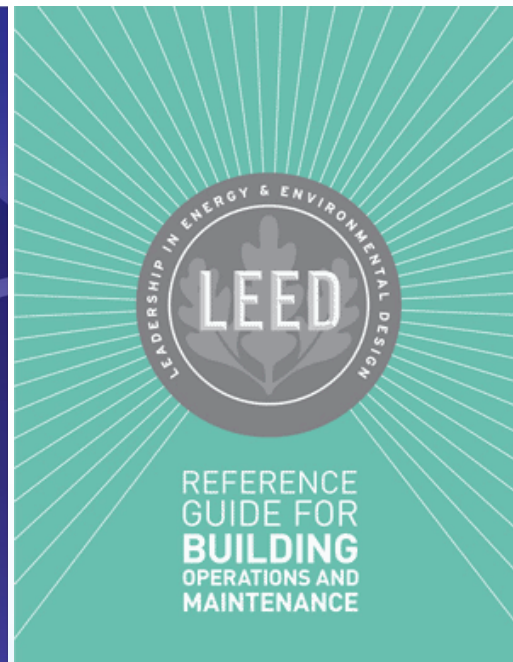


# Opportunities

For Generative AI and Business Intelligence,  
How Do They Fit into These?



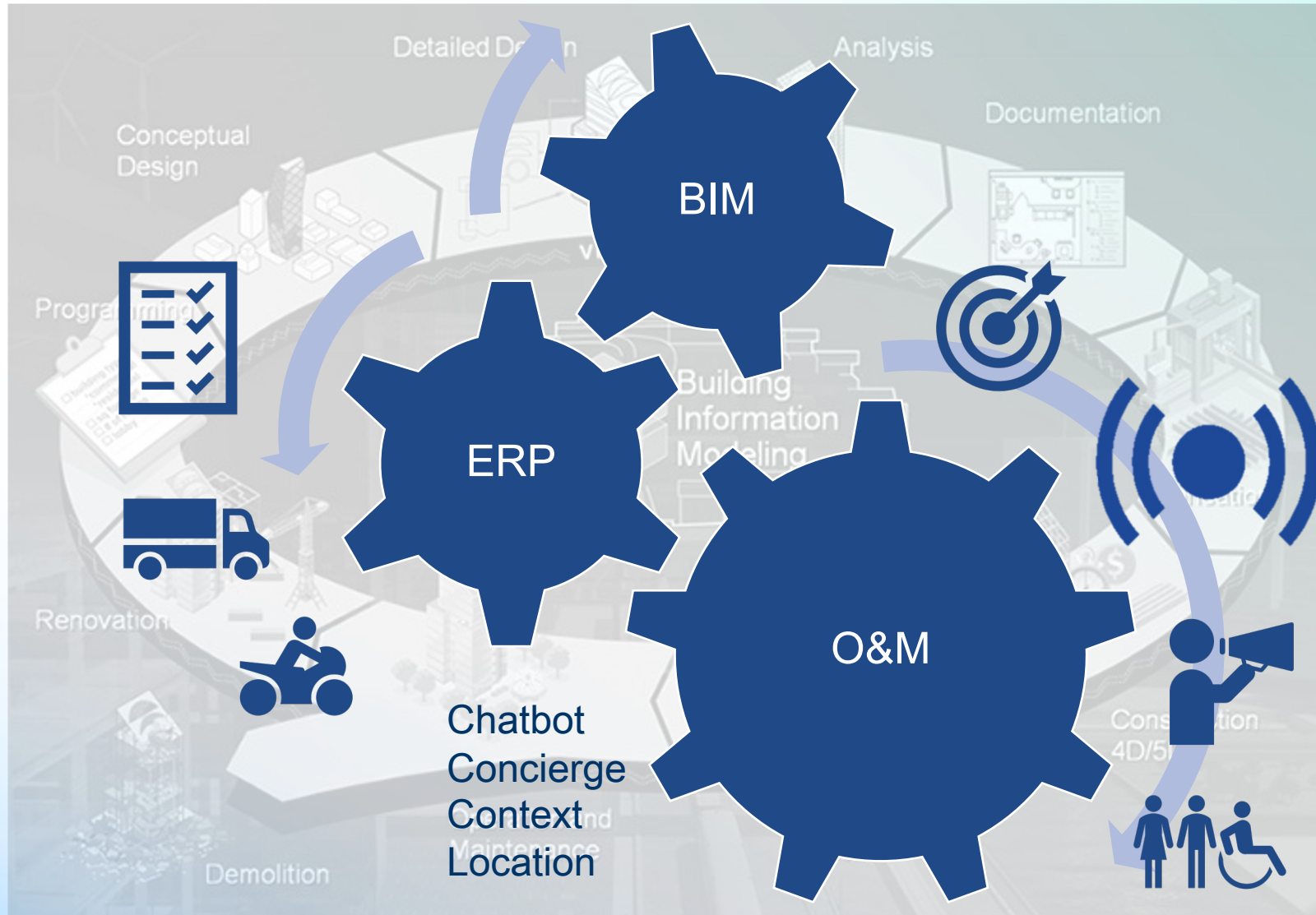
Dow Jones  
Sustainability Indexes



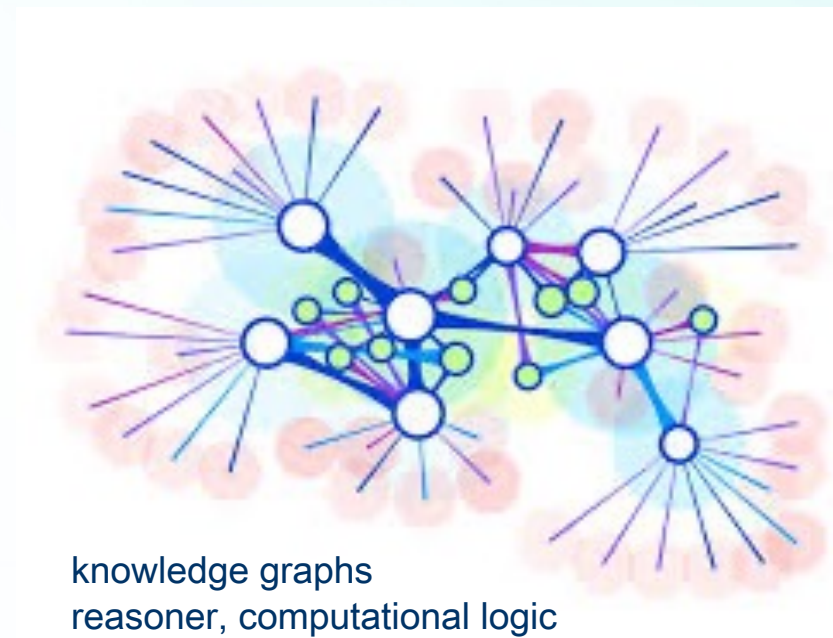
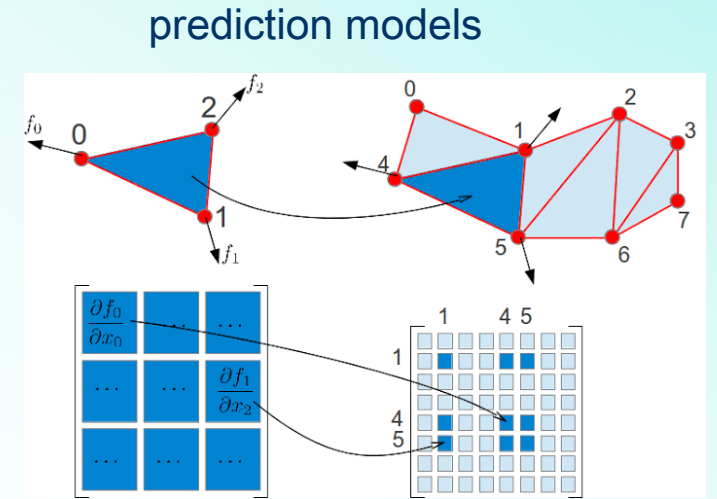
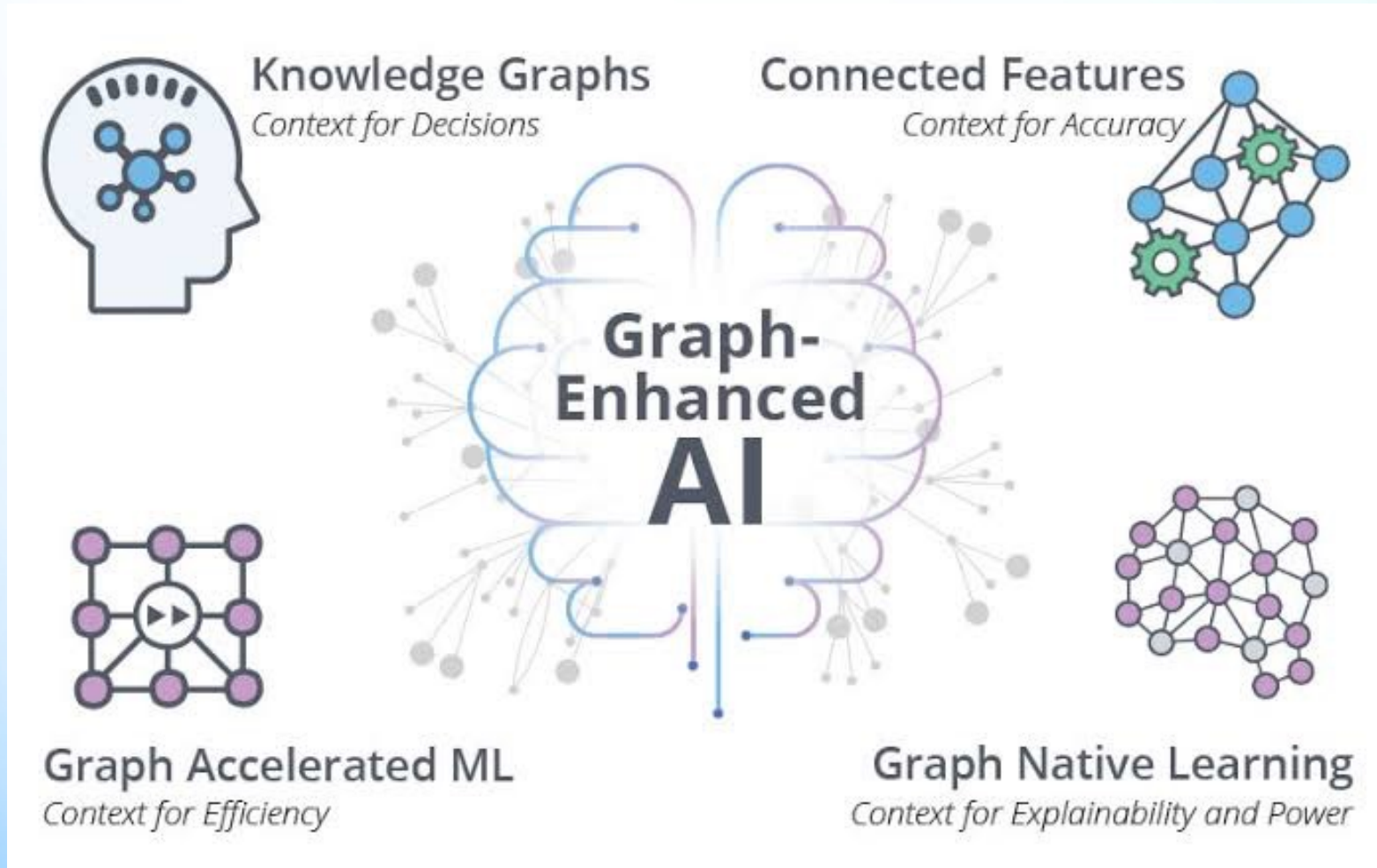
# Opportunities

Excluding Generative AI,  
How Do Professionals Compare AI in 2026 vs. Those in The Past?

# Role of BIM & ERP Across Life Cycle



# Analytics Engines



# Explore certification criteria

Click on any of the criteria to navigate directly to that page.

## User Functionality

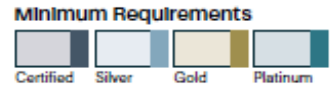
Individual & Collaborative Productivity	Health & Wellbeing	Sustainability	Communities & Services	Maintenance & Operations	Safety & Security
UF1:1 Building Access	UF2:1 Air Quality	UF3:1 Energy Reporting	UF4:1 Events and Services	UF5:1 Building Cleaning	UF6:1 Building Security
UF1:2 Visitor Experience	UF2:2 Disease Risk Mitigation	UF3:2 Energy Optimization	UF4:2 Access Local Information	UF5:2 Maintenance Cost Reporting	UF6:2 Building Utilization
UF1:3 Wayfinding	UF2:3 Wellbeing Reporting	UF3:3 Water Reporting	UF4:3 Delivery Management	UF5:3 System Alarms	UF6:3 Building Compliance Management
UF1:4 Person Locating	UF2:4 Tenant Comfort Control	UF3:4 Waste Reporting	UF4:4 Amenity Space Booking	UF5:4 Work Order Management	UF6:4 Emergency Alerts
UF1:5 Lift Optimization	UF2:5 Comfort Optimization	UF3:5 Carbon Footprint Engagement	UF4:5 Feedback Collection	UF5:5 Fault Detection and Diagnosis	UF6:5 Third Party Access
		UF3:6 e-Mobility Charging		UF5:6 Predictive Maintenance	

## Technological Foundation

Tenant Digital Connectivity	Building Systems	Landlord Integration Network	Governance	Cybersecurity	Data Sharing
TF1:1 Physical Diversity of Tenant Connectivity Routes	TF2:1 Building Automation and Control System	TF3:1 Network Infrastructure	TF4:1 Smart Building Strategy	TF5:1 Cybersecurity Policy	TF6:1 Data Ontology
TF1:2 Choice of Fiber and Fixed Wireless Service Providers	TF2:2 Tenant Software Platform	TF3:2 Building Systems Internet Connection	TF4:2 Tenant Smart Functionality Integration Guide	TF5:2 Cybersecurity Policy Implementation	TF6:2 Data Aggregation and Accessibility
TF1:3 User Wi-Fi in Common Areas	TF2:3 Operations Software Platform	TF3:3 Open Protocols	TF4:3 Smart Functionality Effectiveness	TF5:3 Ongoing Cybersecurity Assessments	TF6:3 Data Sharing
	TF2:4 Extended Systems Integrated into the Operations Platform	TF3:4 Wireless Networks			
	TF2:5 Asset Information Model				

## Digital Innovation

IN1:1 Innovation Credits
--------------------------



\*Projects must meet all minimum requirements up to the level targeted. For example, if a project is targeting Gold, it would need to achieve the minimum requirements for Certified, Silver, and Gold.

# Challenges & Opportunities

## TECHNICAL



### DATA MODEL

- Standard ontologies / metadata
  - Cities, Buildings
- Industrial adoptions
- Convergence with BIM



### KNOWLEDGE REPRESENTATION

- Engineering domain knowledges
  - M&E, HVAC, Air Quality
  - Civil Engr, Transportation



### COMPUTING

- Efficient, Robust algorithms



### SENSORS

- Affordability
- Standardizations, Calibrations
- Anomaly detections
- Mass deployment methodology



### COMMON DATA PLATFORMS



### INTEGRATION / ORCHESTRATION



### BEYOND APIs AND OPEN STANDARDS



### DE-MYTHIFY intelligence

## NON-TECHNICAL



### GOVERNANCE

- Professional licensing
- Audit and controls



### PEOPLE

- Digitalized professionals
- Multi-disciplinary
- Capability enhancements
- Beyond Data Scientists



### TEACHERS OF AI

# TRUSTED TECHNOLOGY SOLUTIONS PARTNER

[www.tcc-technology.com](http://www.tcc-technology.com)