



IoT in Action

#IoTinActionMS



Business Transformation in Action

Julie Morin

Director of IoT Solutions

Microsoft Canada

IoT in Action

Here's what we're covering



Digital Transformation
enabled by IoT

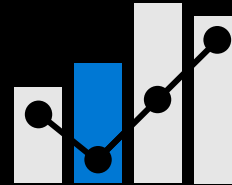
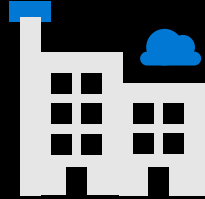
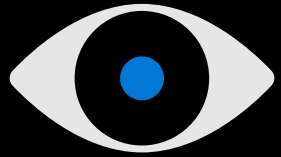


Best practices



Hear from
our partner

4 steps of Digital Transformation



1. Business insights

Sensor proliferation

Data collection, transfer, storage and processing

New insights—
understanding product
and service more deeply

2. Operational efficiencies

Process engineering and
product engineering
improvements

Predict the future based on past
data patterns

Cost reduction

Predictive maintenance

3. New business models

Provision of services
alongside devices
and hardware

Devices/hardware/machines
delivered "as a service"

4. Features and rev streams

Enablement of ancillary
businesses, new businesses and
transformed businesses

RELOGIX



CONSTRUCTION

avigilon™

a Motorola Solutions Company

RELOGIX



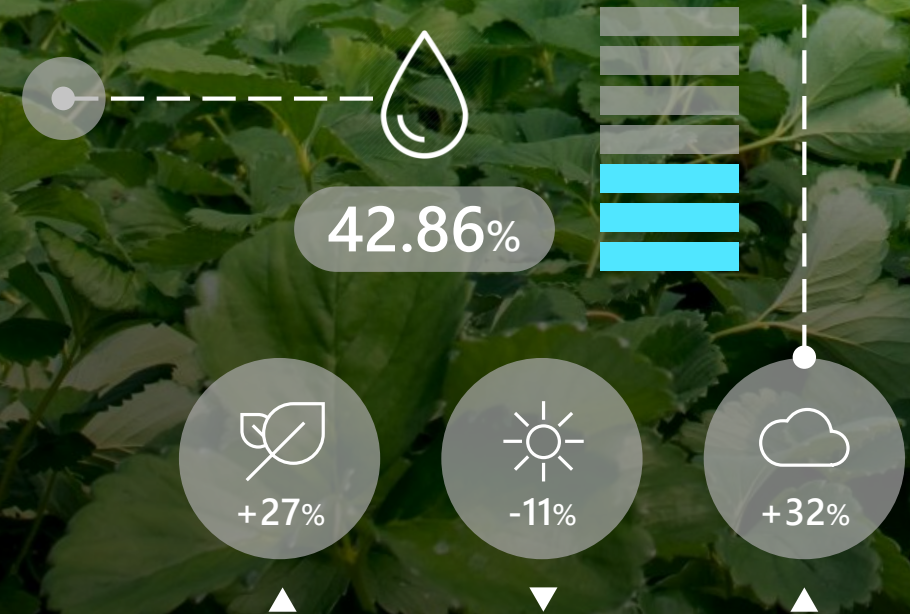
CONSTRUCTION

avigilon™

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Value generation

The purpose of every digital transformation





**Vision &
strategy**



**Culture &
capabilities**



**Business model
& GTM**



Technology





CONSTRUCTION

JOB SITE
INSIGHTS™

Chris Palmer

Senior Manager
Advanced Technology Services

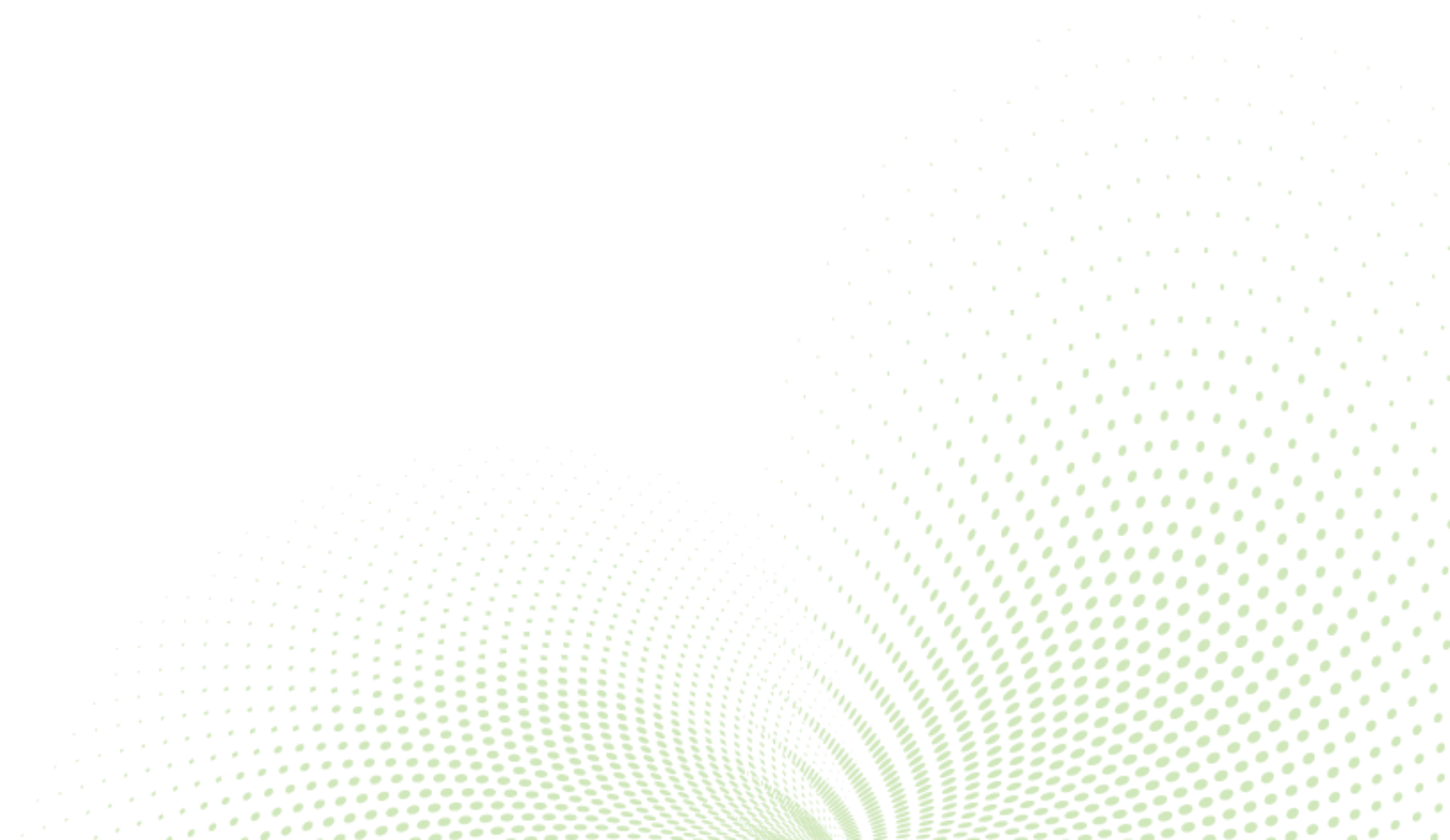
John Boktor

Manager
Digital Construction

Business Transformation



Job Site InsightsTM Video



Job Site Insights™



Design Goals for Job Site Insights™



Device
Agnostic



Reusable
Sensors



Extensible
Platform



Application
Integrated



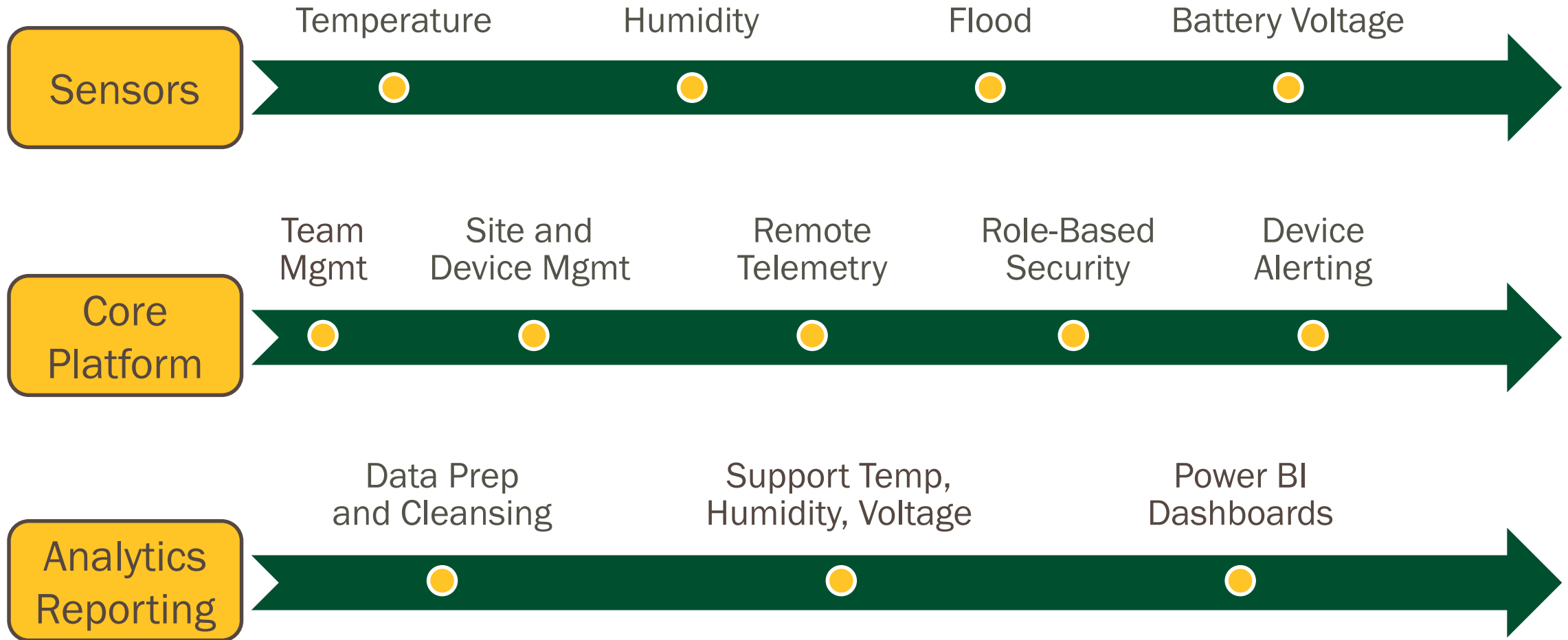
Cost
Effective



PCL & Client
Value



Job Site Insights™ - Current features



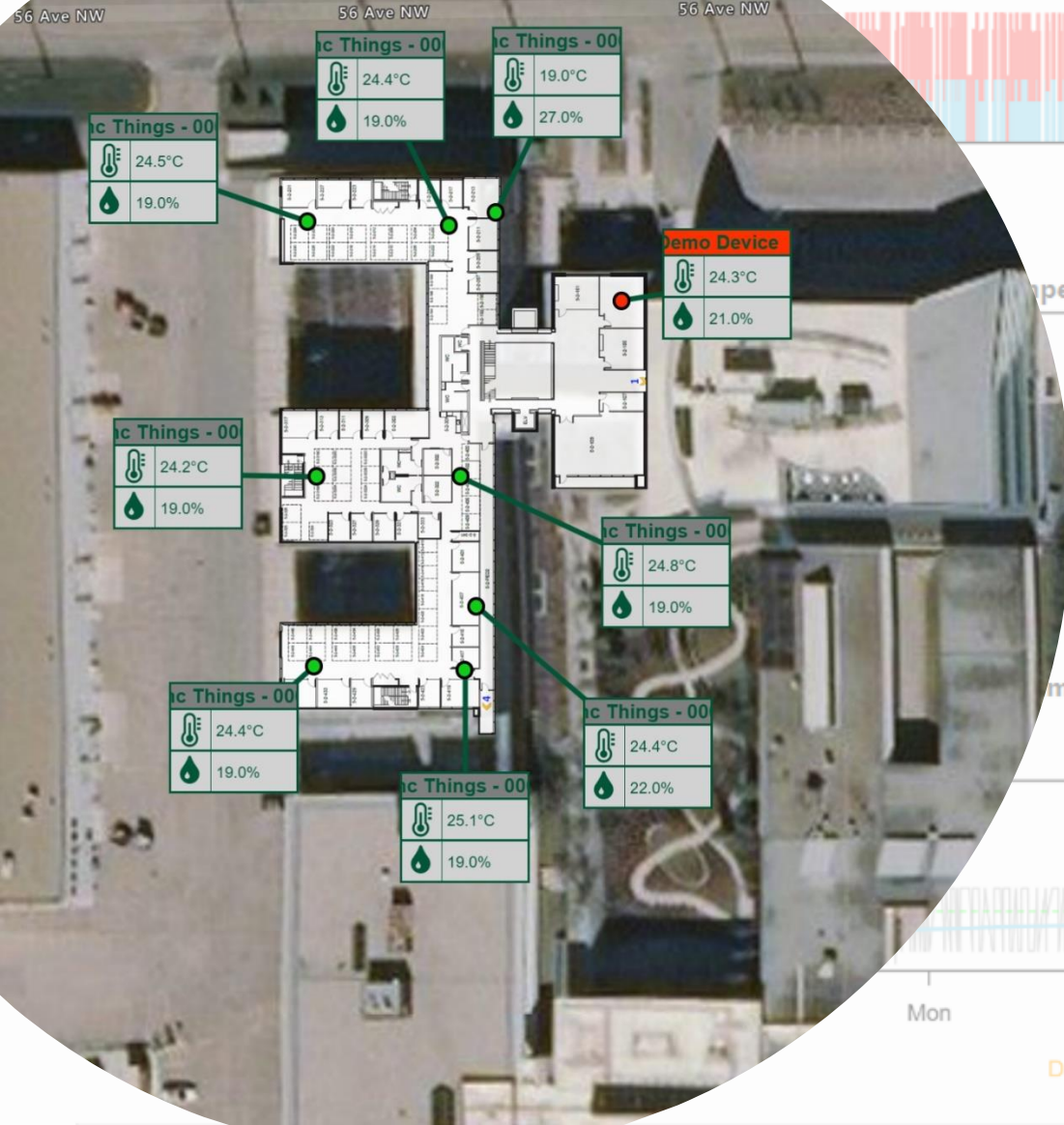
Job Site Insights

Select District(s)

Winnipeg

Select Jobsite(s)

TrueNorthSquare



Time Range

06 AM

12

Tue 22

06 AM

Temperature °C

Tue

ateTimeUtc

midity %

Job Site Insights™ - Demo

Mon

Tue

DateTimeUtc

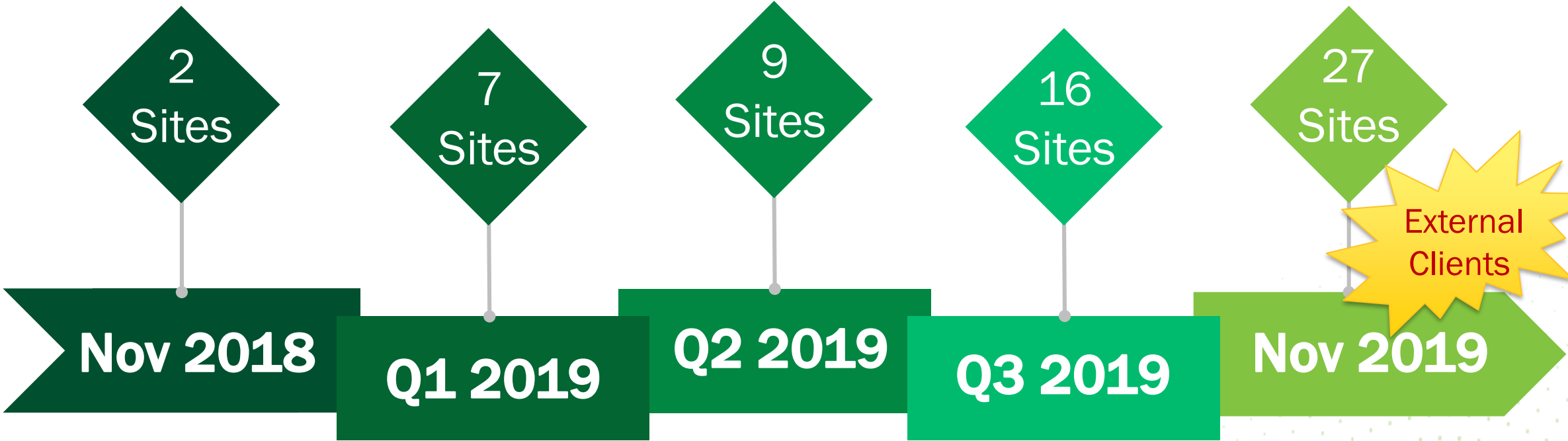
Job Site Insights™

Value and Opportunities



- ✔ Lean construction and sustainability
- ✔ Reduced rework costs and warranty claims
- ✔ Increased quality and safety
- ✔ Enhanced productivity
- ✔ Building commissioning and turnover
- ✔ Reduced insurance deductibles & premiums

Job Site Insights™ Journey



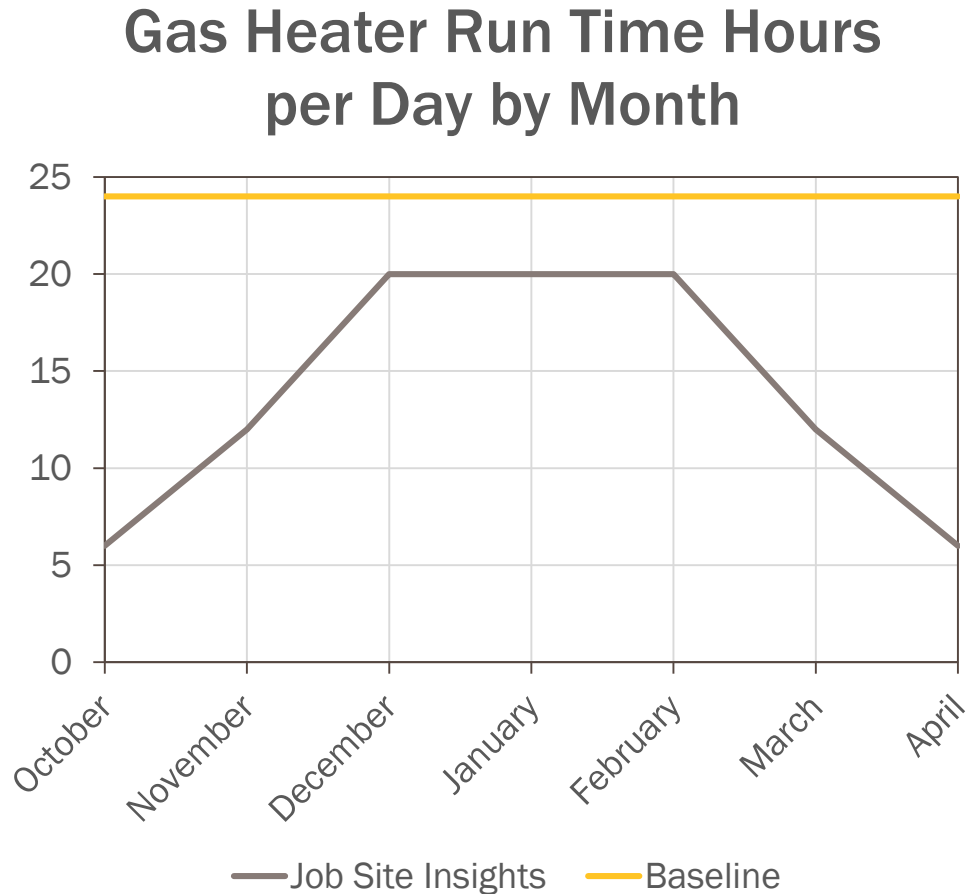
External
Clients

SKY Residences at ICE District, Edmonton

- ✓ Targeting LEED® Gold and FitWel
- ✓ Tallest building west of Toronto
- ✓ 69 storeys, 483 premium condominium suites
- ✓ Every suite had a JSI™ temperature & humidity sensor



Energy and cost savings on gas heaters



35 gas heaters
6-month heating season



JSI™ reduced heater usage by 46%

Results:

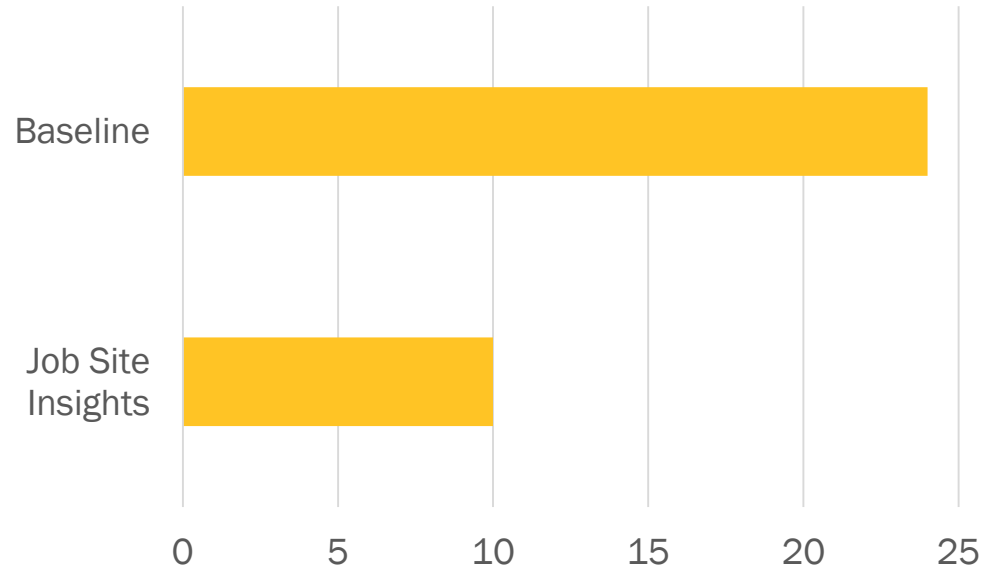
- \$180,000 cost savings
- 32,760 GJ of energy saved



Equivalent energy to
936,000 litres of gasoline consumed

Energy and cost savings on electric heaters

Electric Heater Daily Run
Time Hours Comparison



238 electric heaters
3.3-month heating season



JSI™ reduced electricity usage by 58%

Results:

- \$69,000 cost savings
- 495,000 kW·h of energy saved

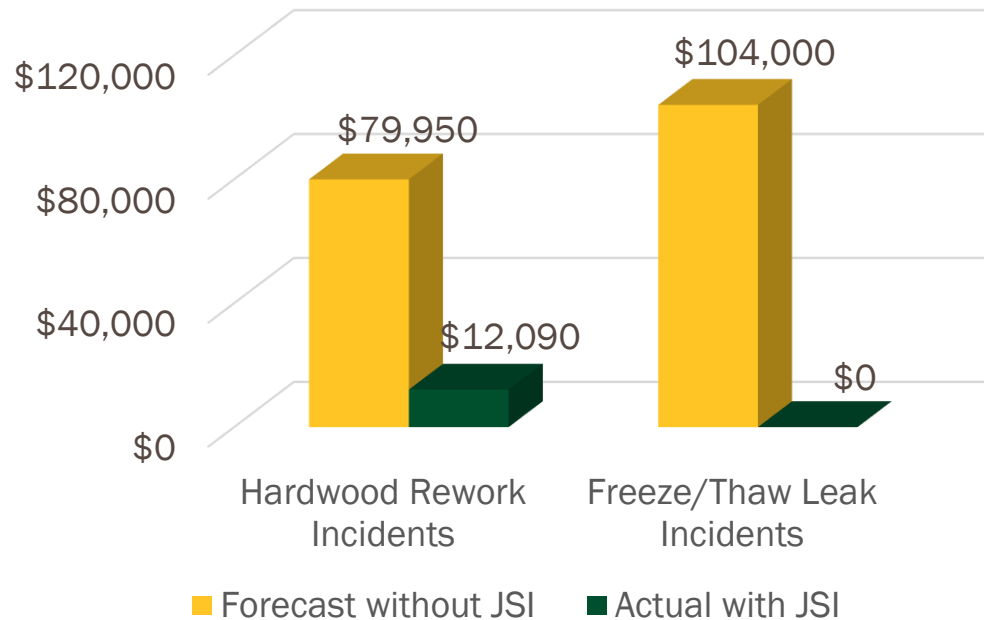


Equivalent energy to power
43 homes electricity use for 1 year

Savings from rework avoidance on 260 suites



Rework Avoided Compared to Forecast



Hardwood humidity damage

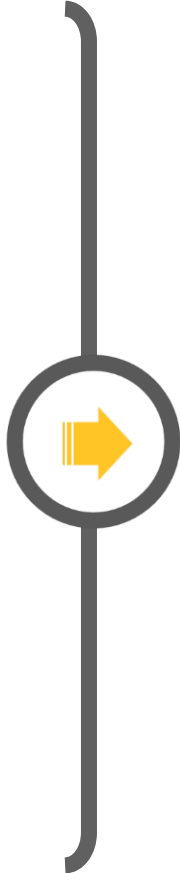
- 85% reduction in time and incidents
- 70% reduction in materials

Freeze/Thaw Water Leak Incidents

- Zero incidents
- Only major project in Edmonton winter to not have a freeze/thaw event

\$171,860 rework avoidance savings

Job Site Insights™ is delivering measurable results



\$40K in sensors and connectivity

=



\$180K carbon-based fuel savings



\$68K reduced hardwood damage rework costs



\$104K rework avoidance for water/leak damage

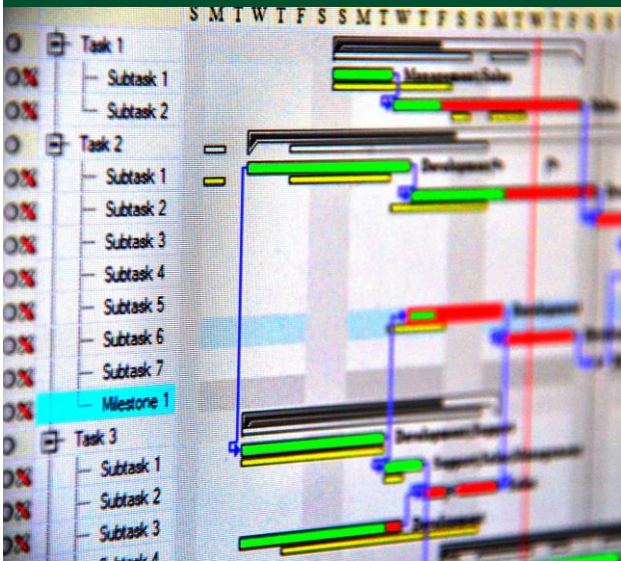


\$69K electrical energy savings

10 times return on investment

Project impacts from JSI™ on 16 York

Schedule Compression



- 17 day early start on painting and electrical/mechanical installations
- Floors turned over one month ahead of milestone schedule
- Flood detected early due to equipment failure, preventing re-work, warranty and insurance claims

Mechanical Rooms



Other business impacts from JSI™



Post-Construction
Warranty Work



Employee
Morale

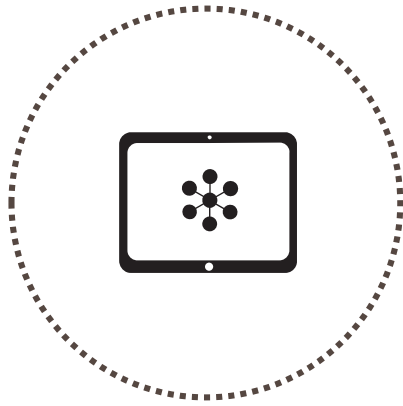


Technology
Innovation

Business Transformation



Business Impacts



JSI™
Adoption



Organizational
Changes



Contracts
and Design

Partnerships



Three more partnerships to be announced soon!

New Business Opportunities



Becoming
an ISV



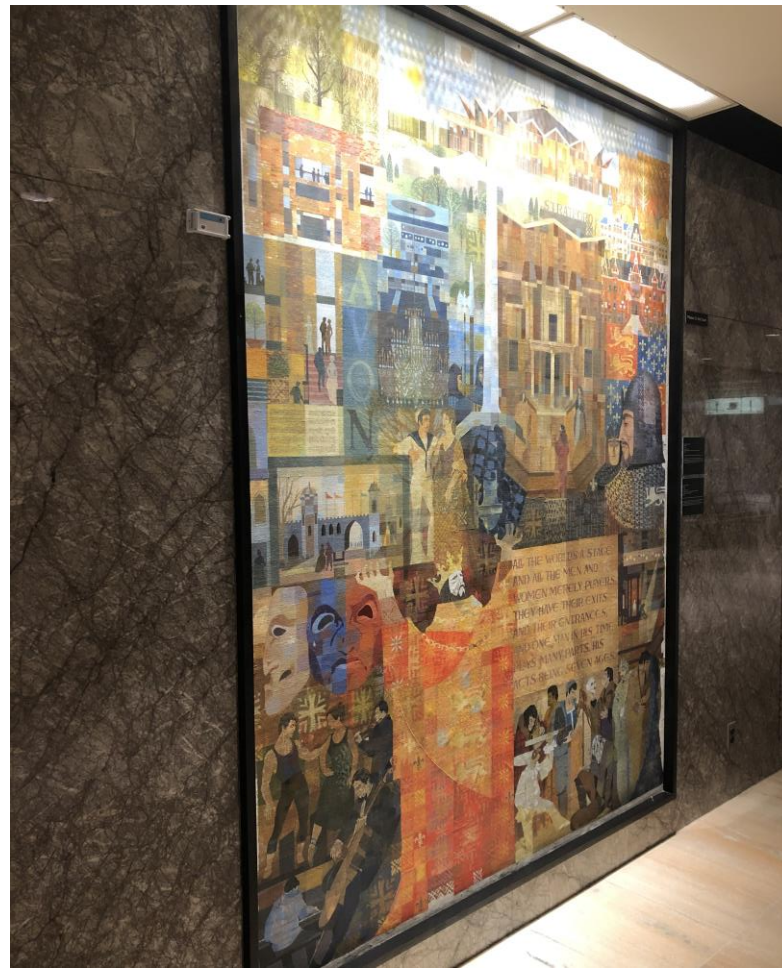
Microsoft
Catalogue



Post-
Construction



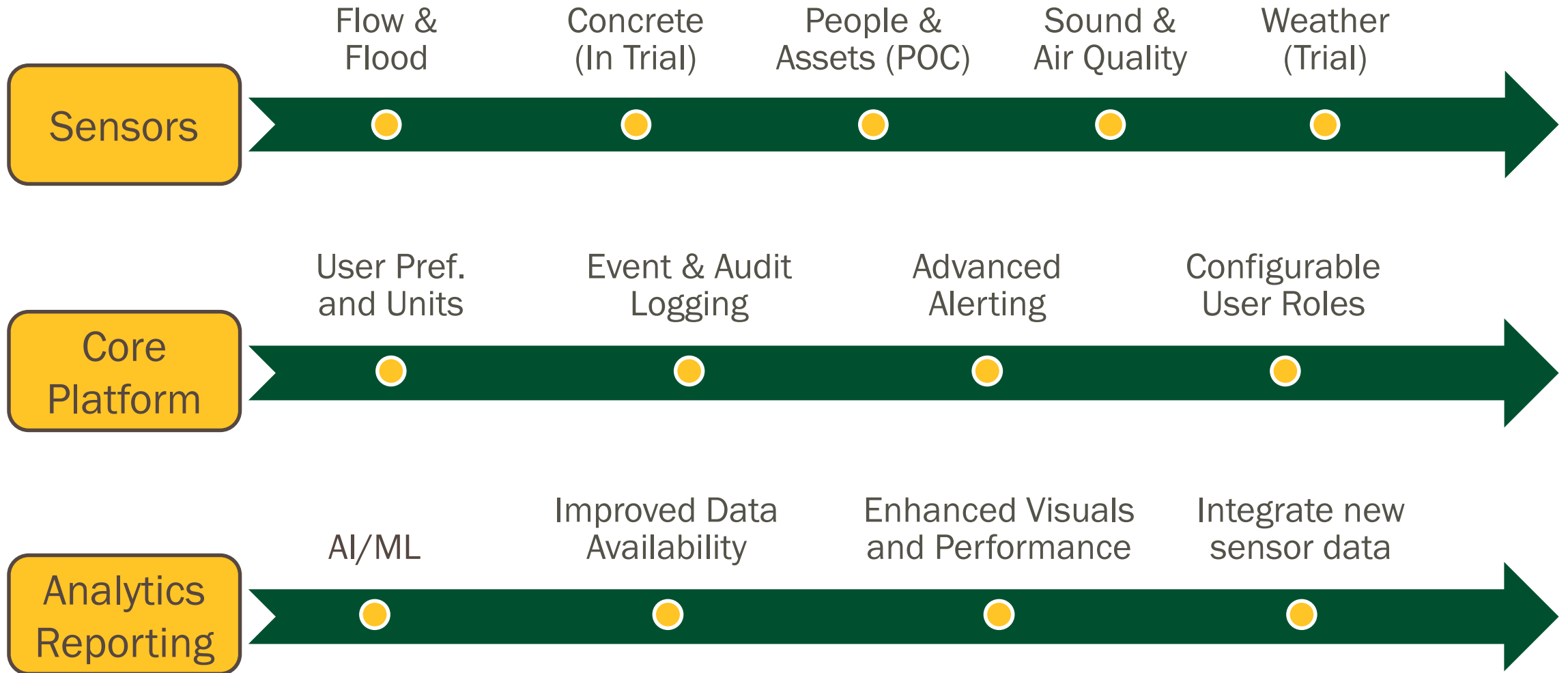
External
Customers



Job Site Insights™ External Clients

Monitoring Art and
Food Processing
Facilities

Job Site Insights™ – Coming Soon



Job Site Insights™ – Not Just for Construction

- Enterprise-class IoT platform
- Supports multiple industries and use cases
- Scales from single user to multi-project implementations
- Proven value in construction, manufacturing, building maintenance

Get *Job Site Insights™* today

Thank You

QUESTIONS?

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