



Leveraging Field & Sensor Data to Drive Your Company's Newest Revenue System

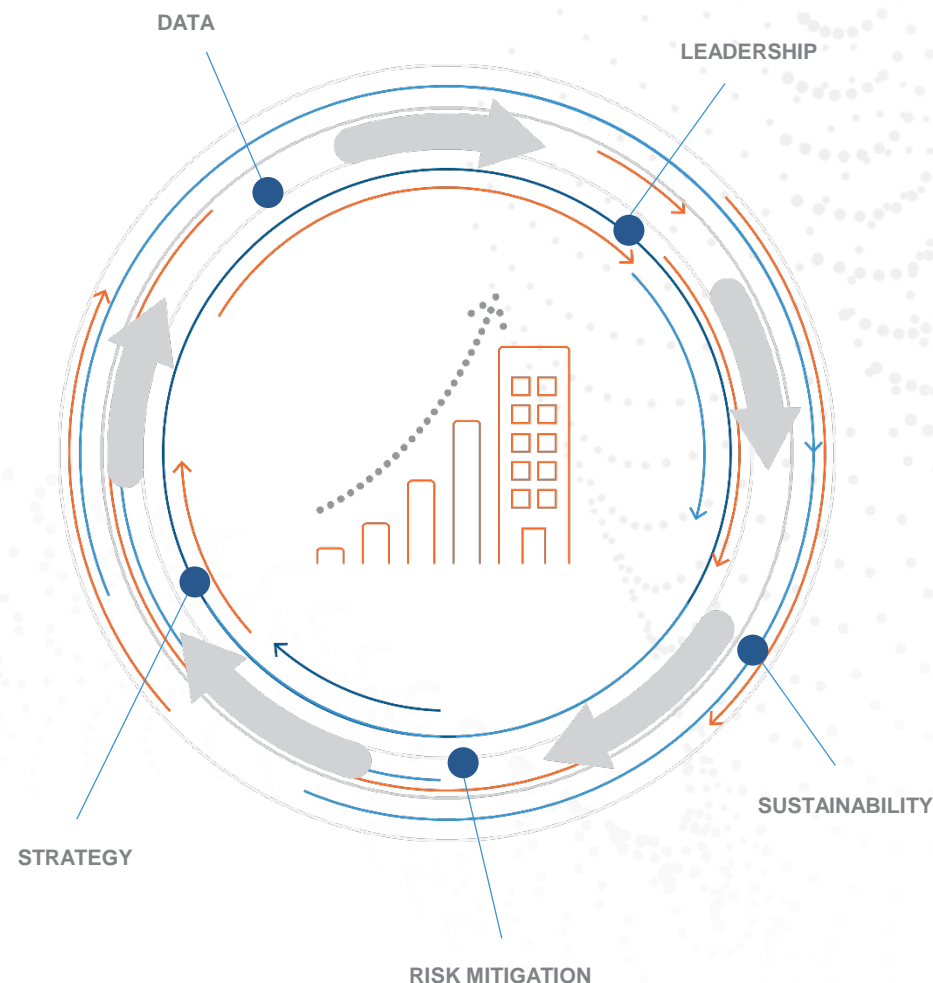
BOB TUTTLE | AGILE FRAMEWORKS
TODD WILLIAMS | DILLON KANE



DATA IS YOUR GREATEST “STRANDED” INTELLECTUAL PROPERTY ASSET

Lets discuss accelerating growth and creating value for your business:

- > Every business is a “data” business
- > Top down executive leadership is required to accelerate and drive a “data” business—business models will evolve
- > Business, not technology transformation, strategies drive “data” commercialization
- > What is your customers/clients “data” strategy?
- > Does your “data” strategy include Professional Liability and Construction claims risk avoidance/mitigation?
- > How do your customers/clients use your “data”? Is your “CapEx” data being used for “OpEx” purposes?
- > Client-facing “data” commercialization strategies drive sustainable growth—but don’t forget about internal business transformation opportunities (e.g. data aggregation and analytics)

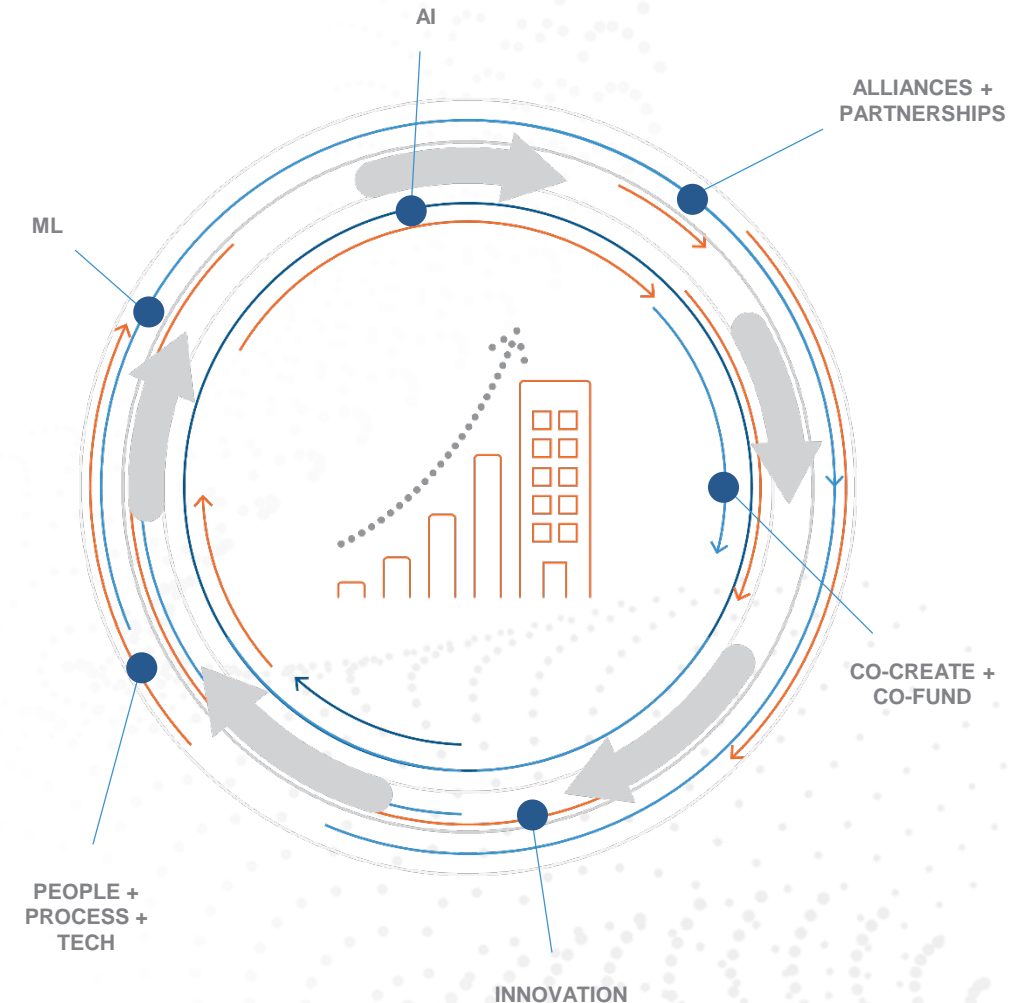




DATA IS YOUR GREATEST “STRANDED” INTELLECTUAL PROPERTY ASSET

Lets discuss accelerating growth and creating value for your business:

- Artificial Intelligence (AI) and Machine Learning (ML) will be the norm within 5 years—augmenting human skills
- Strategic Alliances and Partnerships are the new norm
- Co-create with clients/customers (and co-fund as well)
- Innovation requires more than just an acquisition strategy
- Fundamental data business strategy—requires integrated people, process and technology considerations
- Underestimating technology and “data” solution adoption is a fatal flaw
- Gartner’s new definition of “digital transformation” is “Continuous Next”—perpetual innovation, integration and delivery



Don't believe the hype

Forbes

| Jul 29, 2018, 06:56pm

There has been so much hype, publicity, and promise around digitization but is it justified? According to Ward if you judge it by the amount of marketing going on, yes. “Nearly every oil major, plus many independents are looking at the technology stack and evaluating their options,” he says. “The financial sector has gone over to the cloud – that’s pretty much convinced everyone.”

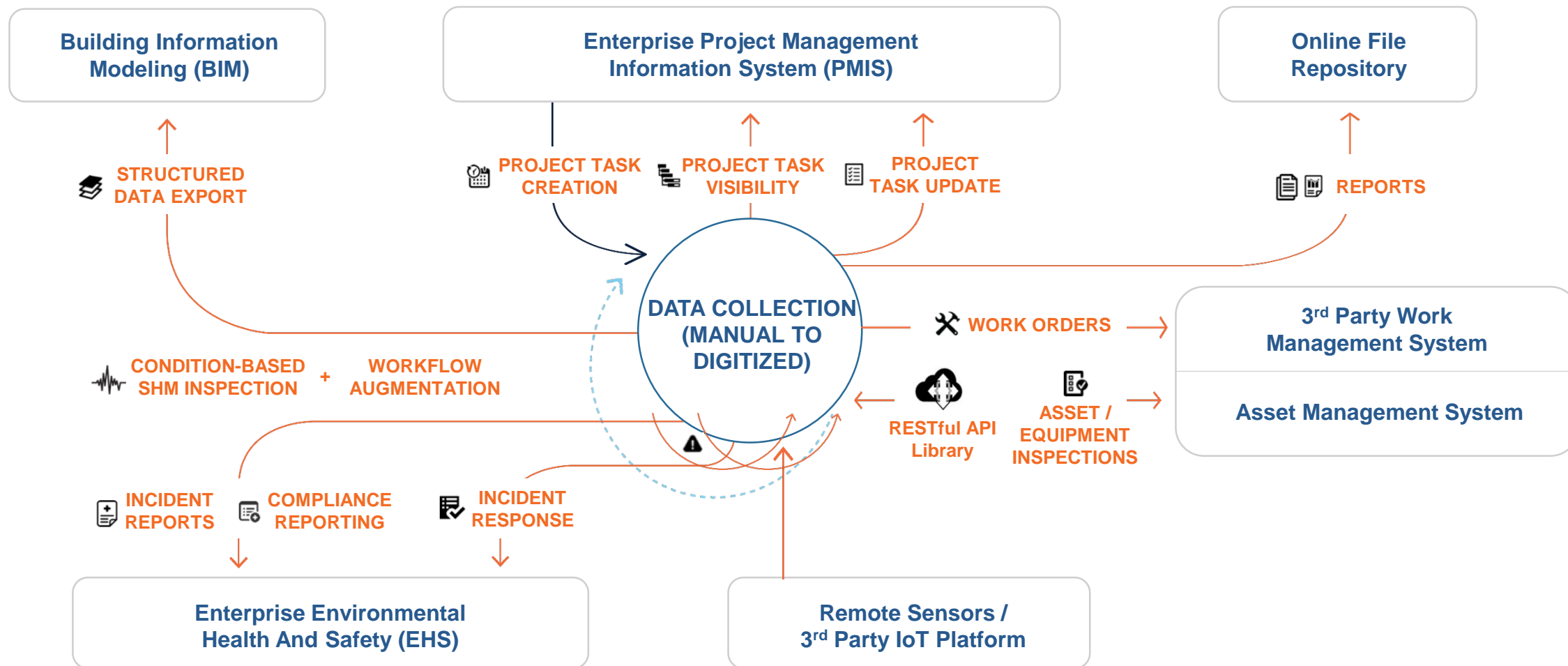
Lehmann is in firm agreement with that sentiment, although he did add a caveat. “New technology is a tool, it’s not the solution in itself,” he explains. “For example, just expecting analytics to magically provide insight and connect the dots is a first-class ticket to disillusionment.





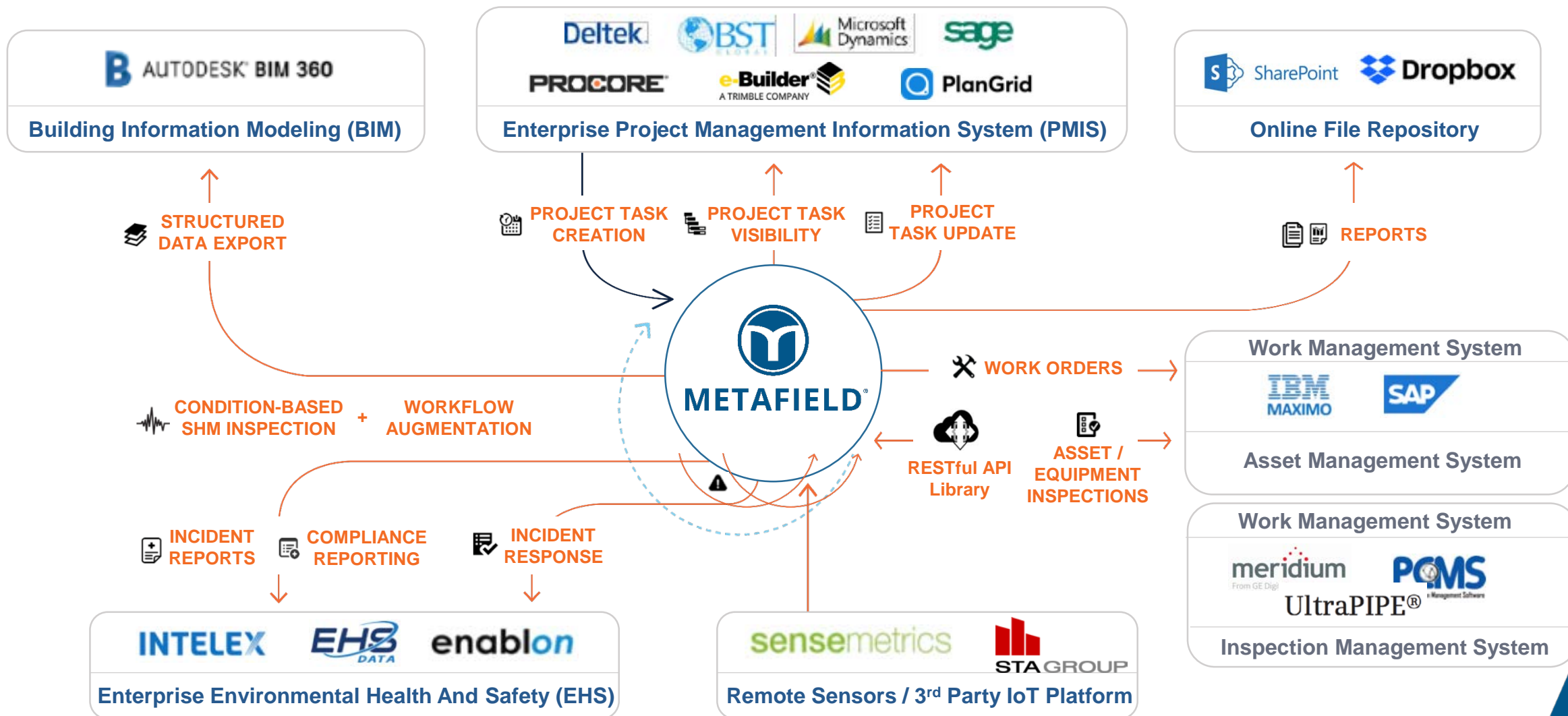


STRUCTURED DATA CAN BE INTEGRATED





CAPEX & OPEX FIELD COLLECTED DATA INTEGRATIONS



WHAT ARE YOU DOING WITH THE DATA YOU COLLECT?



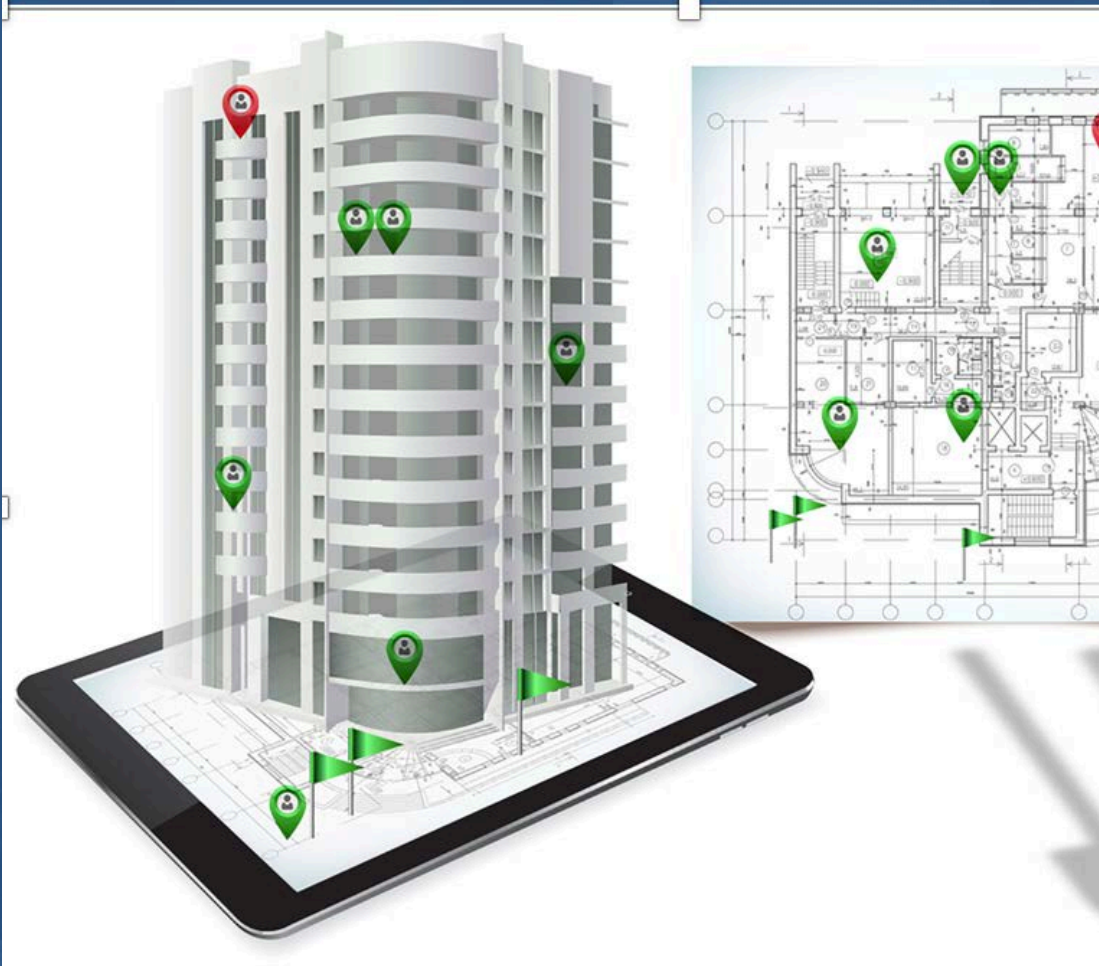


PROJECT : CAPITAL COSTS





BUILT: OPERATIONAL COSTS





INTENTION AND MEASUREMENT

INTENTION

- > Confirm, Verify Design Parameters
- > Long Term Performance Monitoring
- > Expedite Schedule
- > Real Time Safety

MEASUREMENT

- > Vibration Monitoring
- > Perimeter Air Monitoring
- > Concrete Sensor and Monitoring
- > Slope Inclination Monitoring
- > Water Pressure Load, Force
- > Motion, Velocity, Position, Force
- > Corrosion Monitoring
- > Real Time Lead Monitoring

Source

Frequency

Metric

Trigger Rules

Actionable

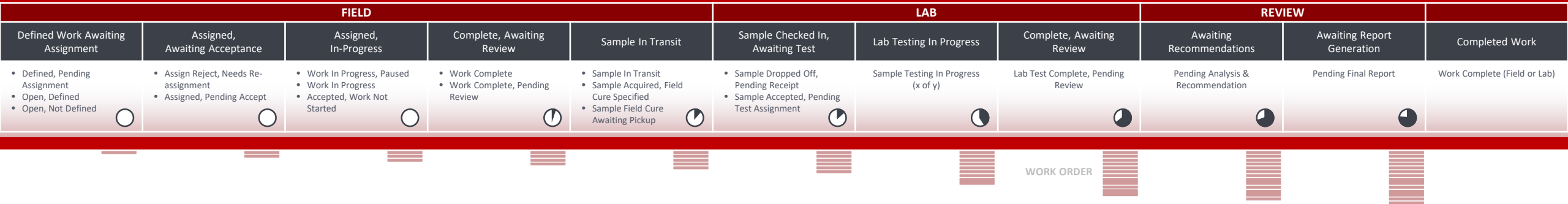
WHAT ARE YOU DOING NOW YOU COULD DO DIGITALLY?





INSIGHT TO ACTION: RULES AND AUDITED WORKFLOW

"WORK" INTEGRATED WORKFLOW



IoT MONITORING

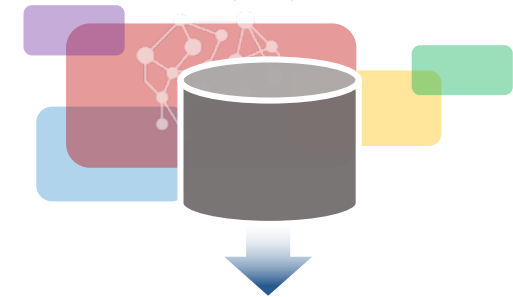


Remote monitoring of sensors associated to fixed assets (such as Structural Health Monitoring (SHM)) or of sensors associated to jobsites (weather, concrete, slope stability, air quality, etc.) can be paired to corresponding pre-defined workflows that either intelligently augment work steps or processes associated to project activities or provide a more structured way to optimize operating efficiency of existing structures.

CONDITIONAL RESPONSE WORKFLOW

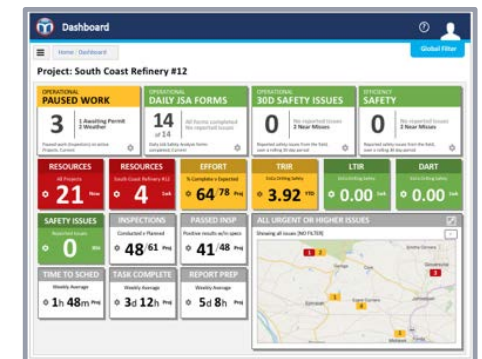
Open Issues, Awaiting Evaluation	Issues Under Evaluation	Action or Mitigation In-Progress	Closed Issues	All Issues
<ul style="list-style-type: none">Reported IncidentsNoted Safety IssuesOpen Remote Monitoring Issues	<ul style="list-style-type: none">Issue Acknowledgement or ReceiptFurther routing	<ul style="list-style-type: none">Issue Remediation or other Actions necessitated by issue typeMay spawn and monitor progress on 'work' before issue can be closed	<ul style="list-style-type: none">All issues where proper workflow steps have progressed to satisfactory completion	<ul style="list-style-type: none">All issues, all types

STRUCTURED MULTI-TENANT DATA (CLOUD)



SAFETY WORKFLOW

Job Safety Assessment and Inspection Forms	Completed JSA's and Inspections	Noted Safety Issues	All Safety Items
<ul style="list-style-type: none">Awaiting CompletionRelated Work In ProgressJSA's requiring secondary evaluation	<ul style="list-style-type: none">Completed JSA'sCompleted Safety Inspections	<ul style="list-style-type: none">Noted Issues of Concern on JSA's or InspectionsIncident Reports	<ul style="list-style-type: none">Expected JSA'sJSA's Awaiting CompletionMulti-stage JSA'sAll noted safety issues of all typesIncident Reports



- Inspection as a Service
- Fee for Rule Expression, Action
- Long Term Health Monitoring Subscription
- Data Aggregation as a Service
- Instrumentation as a Service
- API's Integration
- Analytics as a Service

WHAT IS YOUR STRATEGY TO BECOME A DATA COMPANY??



Q&A

