The Journey To
Real-time Operational Intelligence

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Agenda

Journey To Operational Intelligence

Megatrends Influencing Operations

Innovating for the Art of the Possible

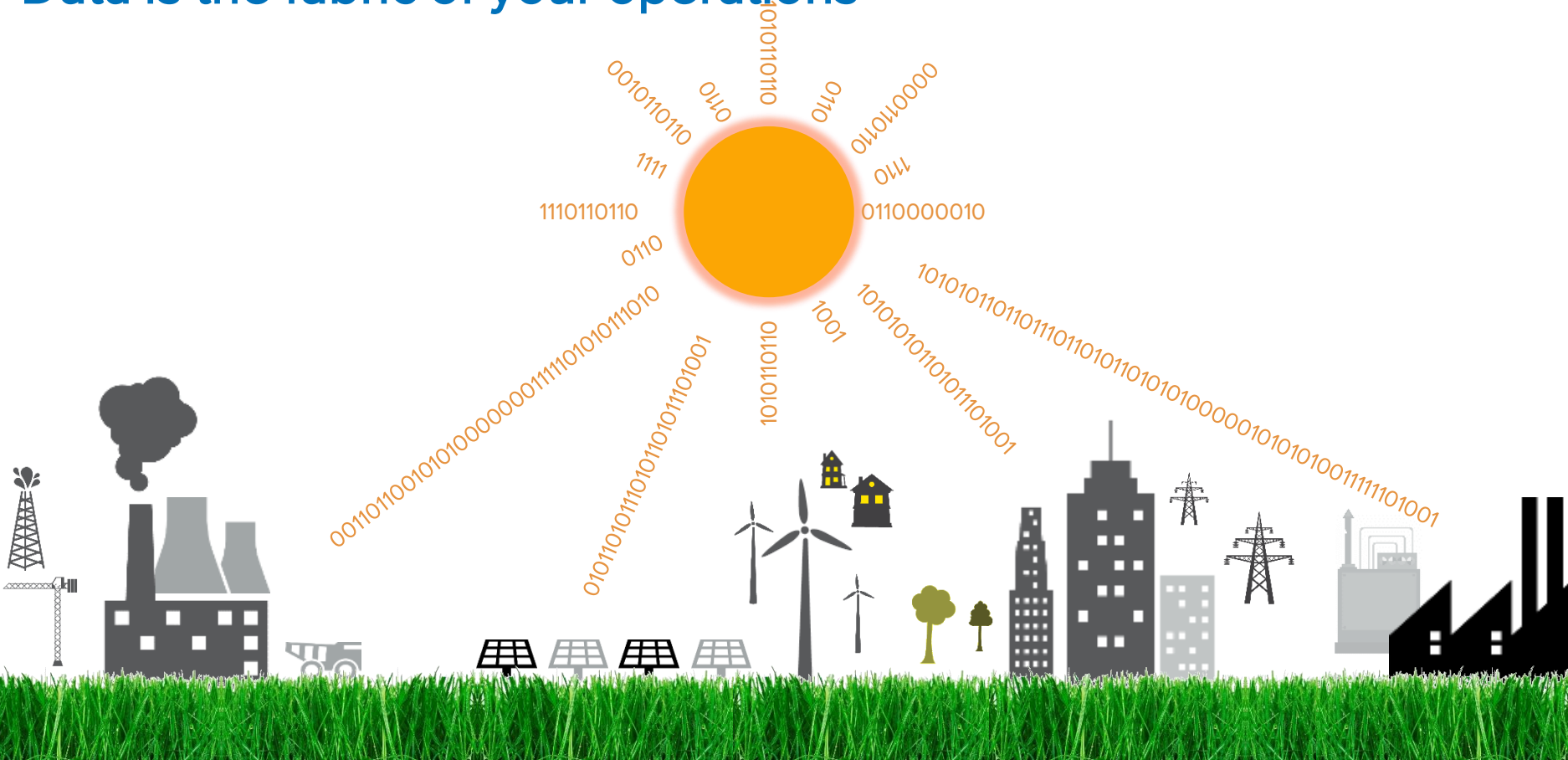# In Face of the Data Deluge

Hundreds of assets

    Thousands of events

        More people that need to know

How can you deliver operational excellence?

Data is the fabric of your operations

Real-time Operations Data Created Everywhere

- Creating islands of systems
- Demanding we connect data, to systems, to people, to actions
- Availability and accessibility of this data is critical
- Increasing need for enterprise Operational Intelligence
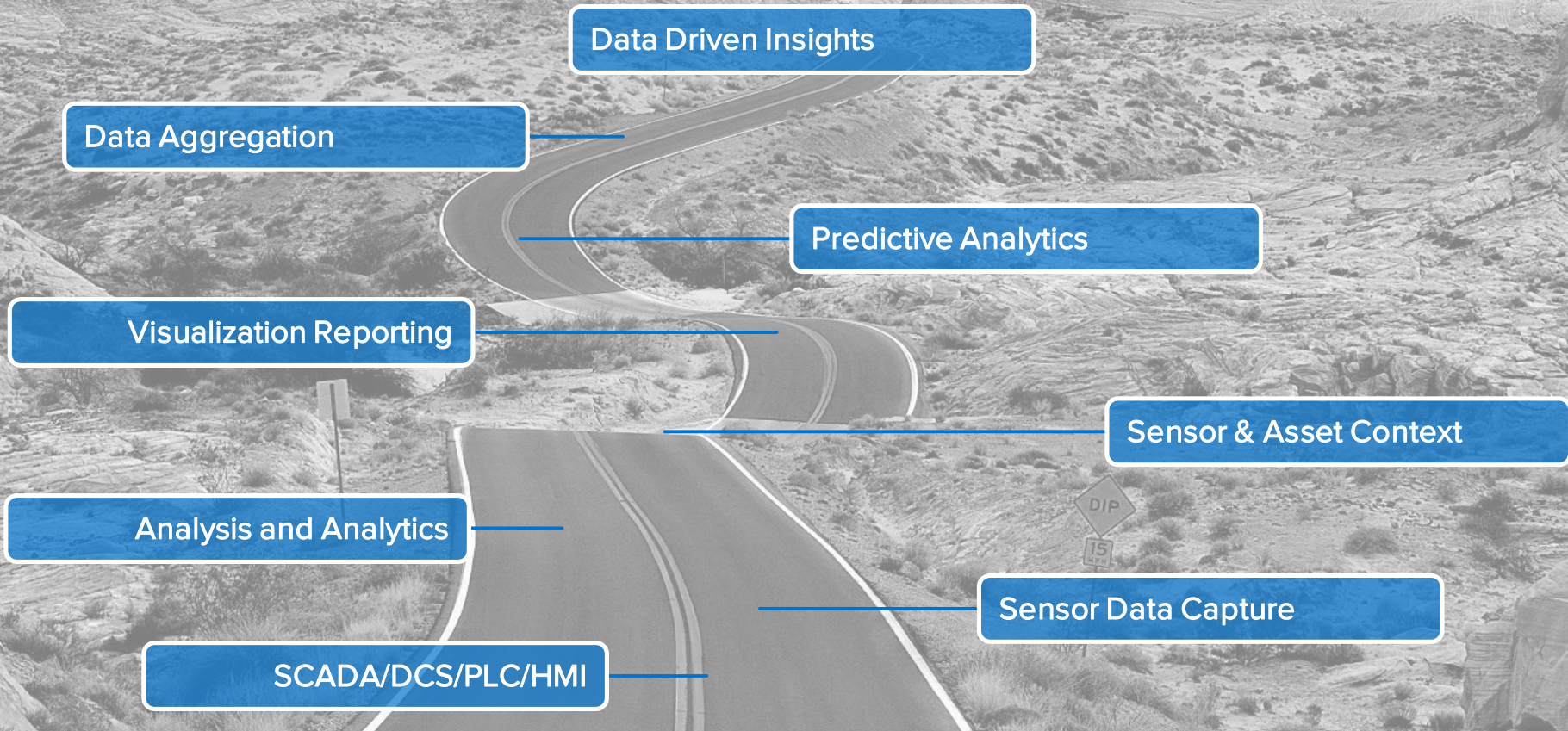
Real-time Operational Intelligence

Operational intelligence (OI) is a category of real-time dynamic, business analytics that delivers visibility and insight into data, streaming events and business operations. Operational Intelligence solutions run queries against streaming data feeds and event data to deliver real-time analytic results as operational instructions.[1] Operational Intelligence provides organizations the ability to make decisions and immediately act on these analytic insights, through manual or automated actions.

Journey to Real-Time Operational Intelligence

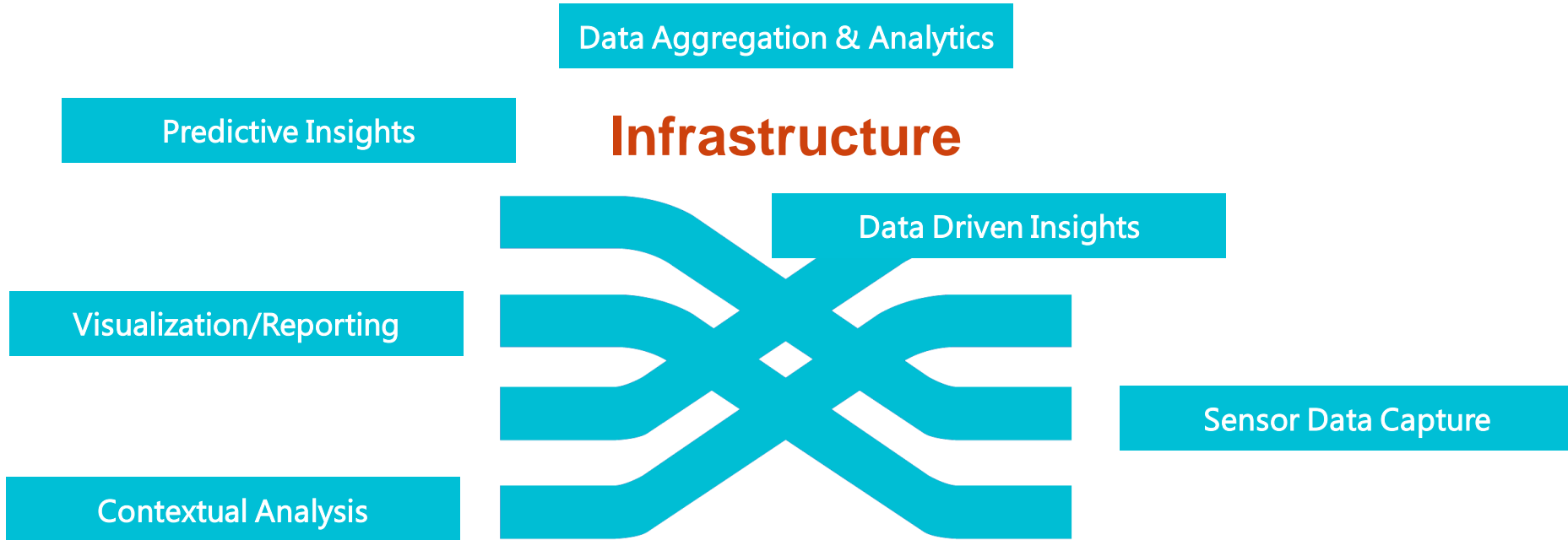Data Driven Insights

Data Aggregation

Predictive Analytics

Visualization Reporting

Sensor & Asset Context

Analysis and Analytics

Sensor Data Capture

SCADA/DCS/PLC/HMI

OSIsoft   Empowering Business in **Real-Time.**   © Copyright 2015 OSIsoft, LLC

Journey to Real-time Operational Intelligence

Data Aggregation & Analytics

Predictive Insights

Infrastructure

Data Driven Insights

Visualization/Reporting

Sensor Data Capture

Contextual Analysis
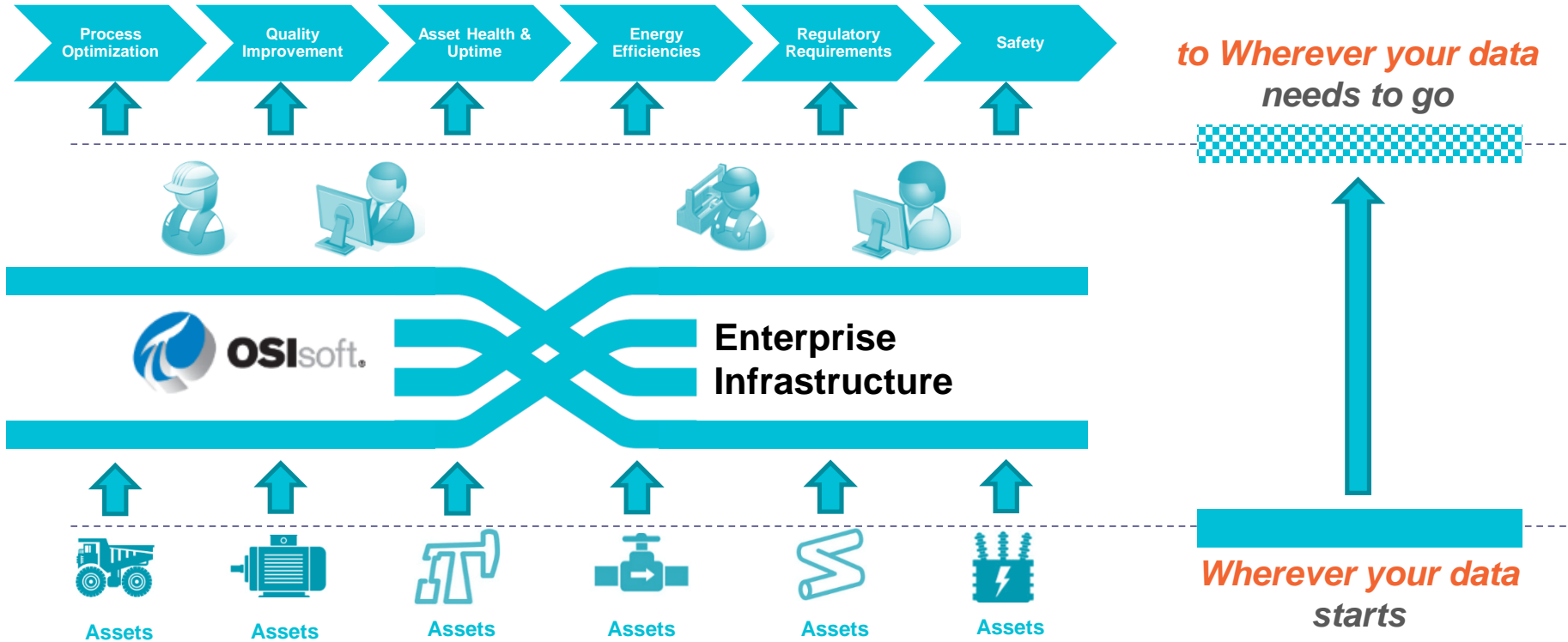
Asset-equipment/device

SCADA/DCS/PLC/HMI

in·fra·struc·ture [in-fruh-struhk-cher]

"It can be generally defined as the set of **interconnected structural** elements that provide **framework supporting** an entire structure of development[1]"

An Infrastructure for the Enterprise

Scaling an Infrastructure to the Enterprise

New Data Streams ⬌ New Locations ⬌ New Applications

Multiple Sites, Multiple Systems, Multiple Users, Multiple Businesses, Simplified Governance

Context: Critical for scale and valuable insights
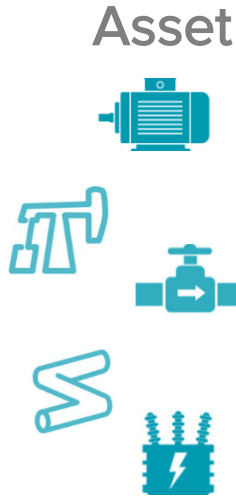
Operational Context

Time-series data
- Temperature
- Pressure
- Flow

Asset details
- Name
- Model
- Manufacturer

Process
- Well drilling
- Site

Asset

High Value Insights Require Data Context

→ Which asset performs best?

→ Which conditions are optimal?

→ What are the indicators of failure?

→ What leads to unsafe conditions?

→ What causes quality issues?

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Global Megatrends

IOT
- Predictive behaviors
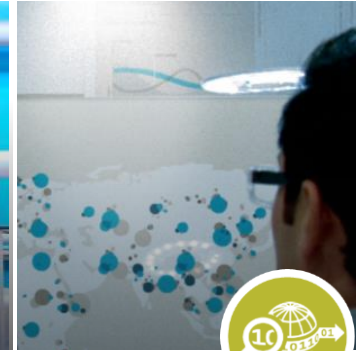- Operational efficiency
- Asset management

Cloud
- Connecting distributed sites
- Lower cost of owner ship
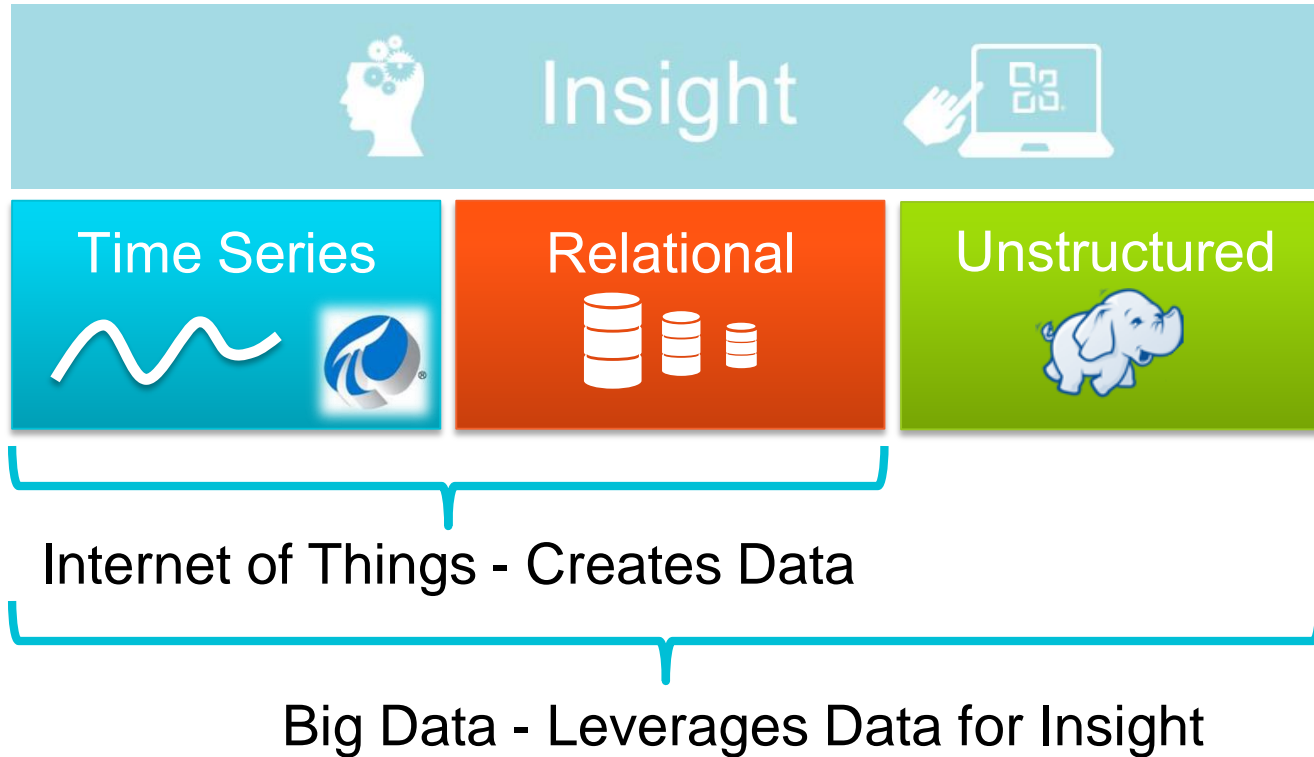- Easier/faster deployment

Mobility
- Connecting people
- Real time context
- In situ decisions

Big Data
- Combined business and operations insights
- Wide scale analytics

The PI Systems essential role in Big Data Initiatives

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OSIsoft PI System 2015 Developments

Predictive Insights

Data Driven Insights

Visualization/Reporting

Analysis

Predictive Analytics / Simulations

Integration with Big Data Analytics

Integration with Business Systems

OSIsoft 2015 Investment In Your Infrastructure

- **PI Connectors**
- **PI Cloud Connect**
- **SAP Hanna Integrator**
- **PI Integrator for ESRI**
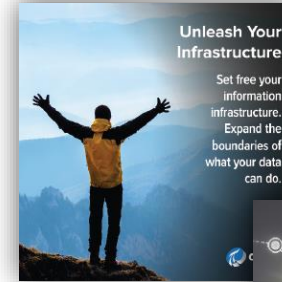- **PI in the Cloud**
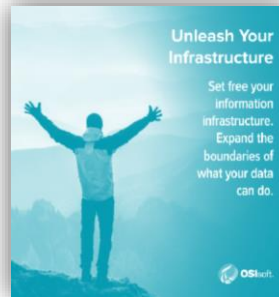
- **PI Server 2015**
- **PI Asset Calculations**
- **PI Event Frames**
- **Future Data**

- **ProcessBook Displays in PI Coresight**
- **PI Coresight Mobile**

Summary: Real-time Operational Intelligence

- **It's a Journey**
- **Accelerated by the right infrastructure**
- **Megatrends taking us to new places**

"Intelligence without data is the slowest path to success. Data without intelligence is the noise before failure"

Unleash Your Infrastructure

Set free your information infrastructure. Expand the boundaries of what your data can do.

The Power of Connection

Bridging the data divide. Connecting people, systems, and information across the entire value chain.

Thank You

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