



Benefits of Standardized PI System

Presented by **Kevin Crean**

Johnson & Johnson

Agenda

Introduction

- Standardized Content, Execution & Visualization
- Real Examples
- Other Focus Areas
- Next Steps



What is SPIRIT?



Standardize

**CPV, Process
Visualization and
Energy Monitoring**

**Janssen R&D and
Manufacturing**

**Process and
Facility Data**

**Alignment on
Content, Execution
and Visualization**

- ES Standards, IT and Business Driven Collective Initiative
- Drive the Use and Standardization of the PI System
- Janssen R&D and Manufacturing
- Alignment on Content, Execution and Visualization
- Both Process and Facility Data
- Key enabler to initiatives like CPV, Process Visualization and Energy & Utility Monitoring

SPIRIT Scope

Standardize Content

- Naming Conventions
- AF Templates and Structure

Standardize Execution

- Interfacing
- Maintenance, Support and Governance

Standardize Visualization

- Process Visualization and CPV
- Energy and Utility Monitoring

Standardize Deployment

- Architecture
- Qualification

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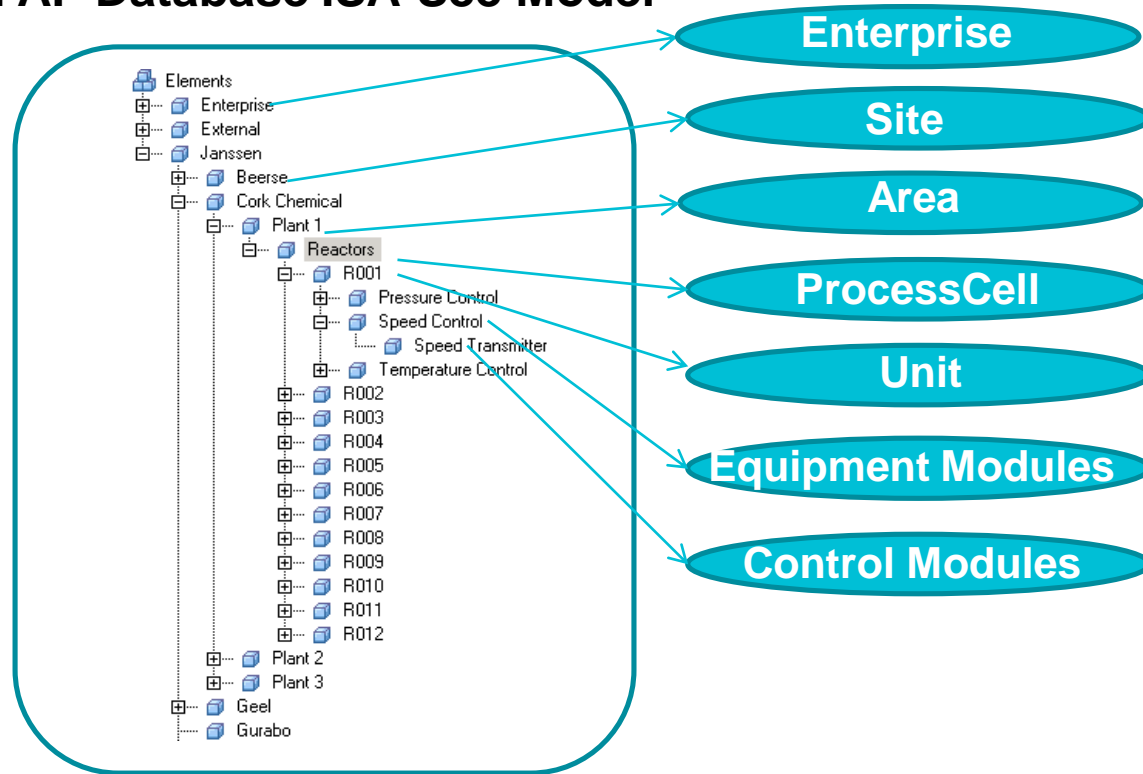


Standardized Content – Define the Standard

Content



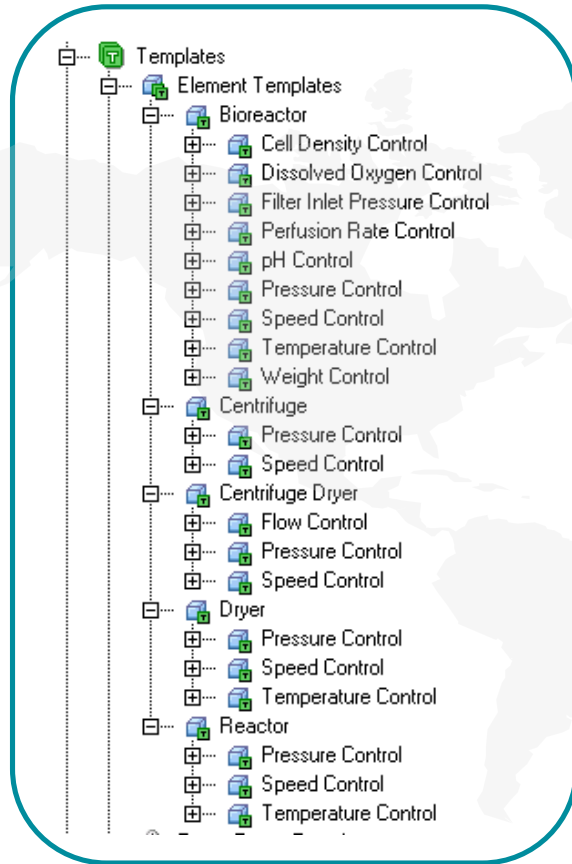
PI AF Database ISA-S88 Model



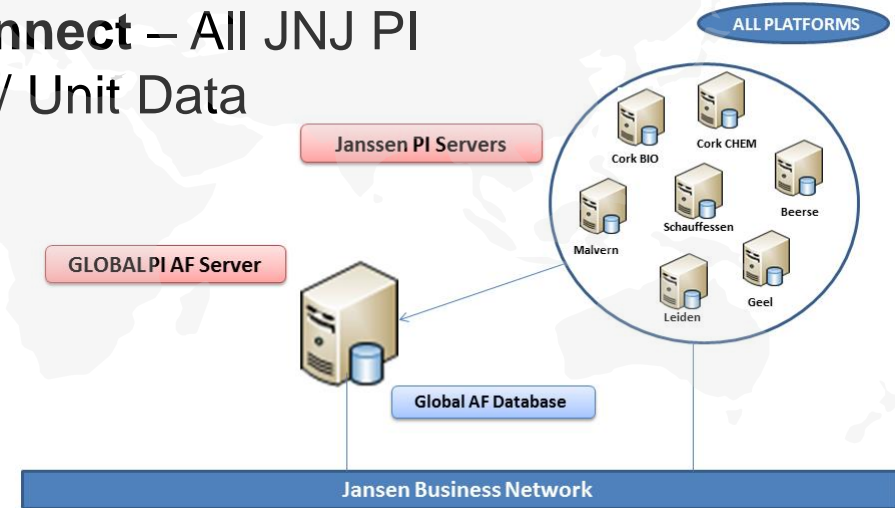
- **Connect** - Standardizing Groups for CPV, Recipe Delivery and Execution Systems
- **Connect** - Business and Technical Owners
- **Review** - Platforms: Small Molecule, Large Molecule, Solids, & PDMS
- **Identify** - Key Unit Types and Unit Process Parameters

Standardized Content – Implement Global PI AF

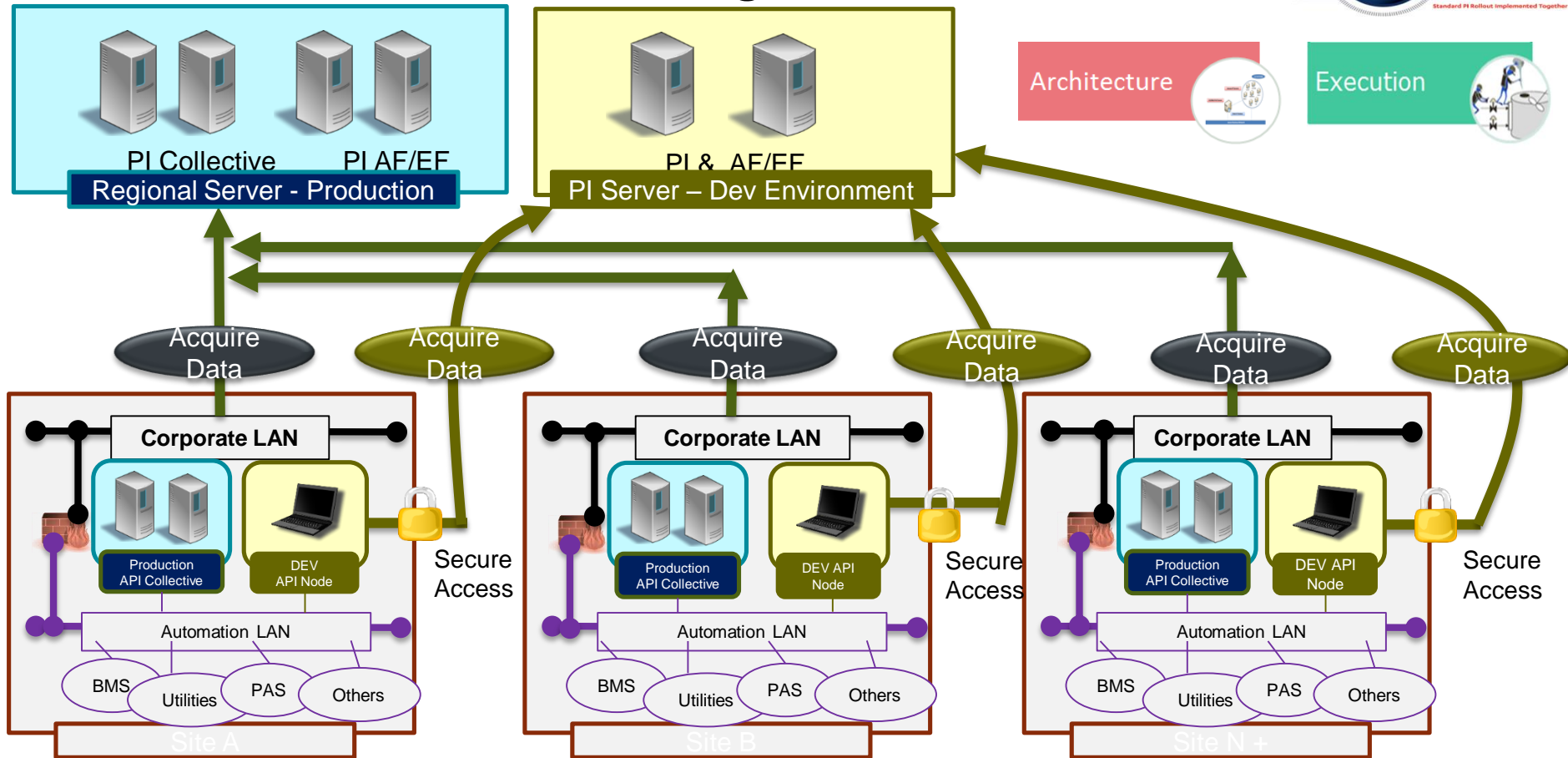
Content



- **Global Server** – Create a Global Asset Framework DB
- **Implement** – Global Unit Templates and PI AF Elements
- **Interconnect** – All JNJ PI Servers/ Unit Data



Standardized Execution – “Getting Connected”



Standardized Analytics & Visualization – Process Data



Process Visualisation



Unit Selection

Cork Chemical: Reactor - R221

Schedule Attainment

Detailed Analysis

All Sites

All Sites

Biogen Idec

Beers

Cork Bio

Cork Chemical

Plant 3

Mod1

CFD311

R311

R312

CFD321

R321

R322

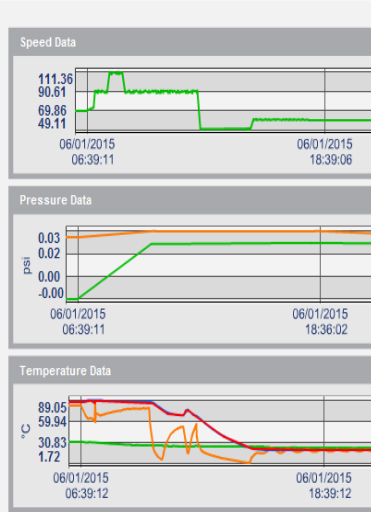
R323

Mod3

CFD331

QCM016

R331



janssen PHARMACEUTICAL COMPANIES OF Johnson & Johnson

Unit Selection

Cork Chemical

T5

CF04

R010

Plant 2

T1

C111

D011

R211

R212

T2

C121

D021

R221

R222

Plant 3

CFD311

R311

R312

Mod2

CFD321

R321

R322

R323

Mod3

CFD331

QCM016

R331

R332

Process Visualisation

Unit Selection

Cork Chemical: Reactor - R221

Search

BATCH LIST

Name	Start
orkIABBI/R221	04/25/2015 20:00
orkIABBI/R221	04/27/2015 03:00
orkIABBI/R221	05/01/2015 20:00
orkIABBI/R221	05/03/2015 19:00
orkIABBI/R221	05/05/2015 00:00

PHASES/OPERATIONS

H5DC1721

H5DC1746

TAGS/ATTRIBUTES

Use Filter

All

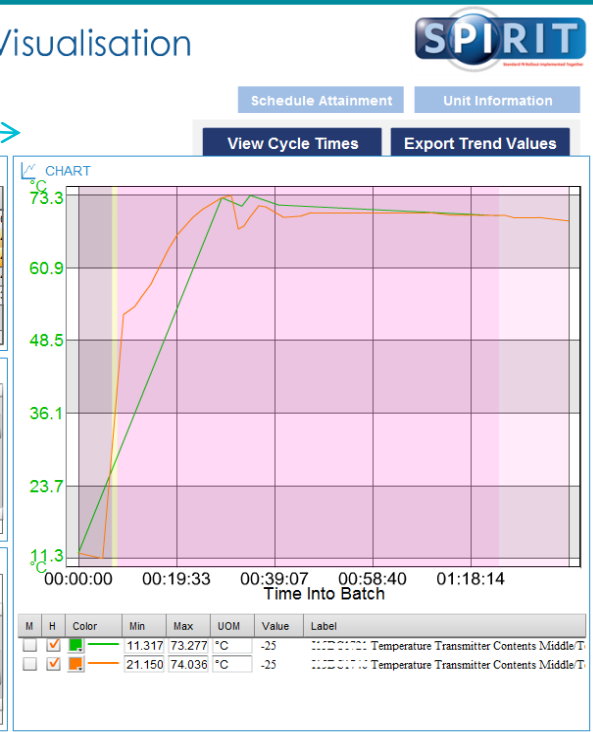
Name

R221/Temperature Control/Temperature Transmitter Jacket/Temperature.PV

R221/Temperature Control/Temperature Transmitter Contents Middle/Temperature.PV

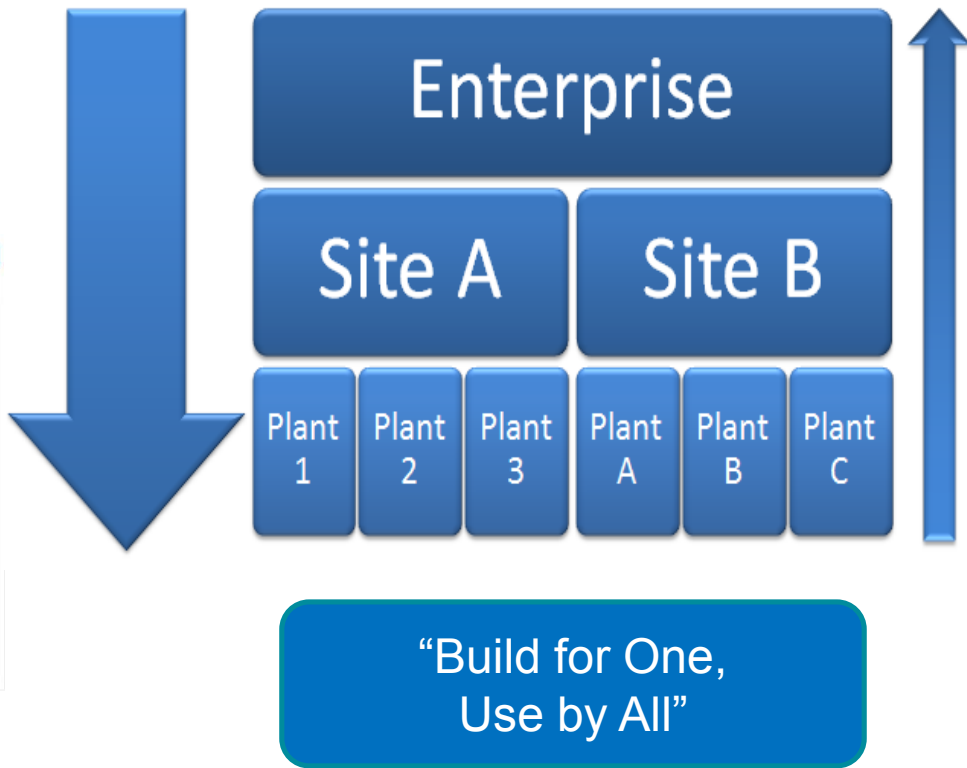
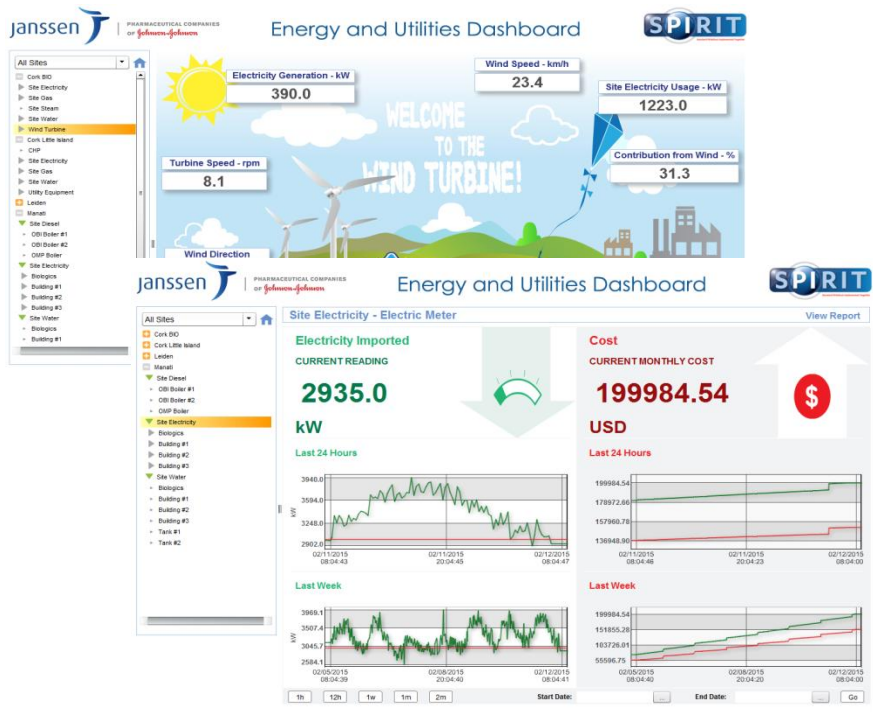
R221/Temperature Control/Temperature Transmitter Contents Bottom/Temperature.PV

R221/Speed Control/Speed Transmitter/Speed.PV



Built on Standardized Content & Execution

Standardized Analytics & Visualization – Energy & Utility Data



Built on Standardized
Content & Execution

“Build for One,
Use by All”

Linking Content, Execution, Visualization– Key Functions/ Benefits

Analytics & Visualization

- Analytics & Visualization Content Driven Templates
- Unified View – Unit Class based Approach

LAB to Manufacturing

- Lab to Patient Single Vision
- Manufacturing and R&D Joint Approach

Dynamic/ Mobile Displays

- Content Only Updates
- Desktop and Mobile Apps

Deployment and Scalability

- Addition of Site – Addition of Units
- Reduced Deployment Cost and Project Cycle Time

Location Independent

- Globally Interconnected Infrastructure
- Regional & Local Instance Compatibility

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Real Examples – Unified Views & Simple Deployment



Visualization and Analytics Templates

View the data in a unified way – every unit – every site

Batch to Batch Parameter Comparison

Cross Unit Batch Comparison

Units Added in AF Only – No Additional Visualization Development

Dynamic link to AF

Full Visualization and Analytics Capability added within minutes of connecting the data

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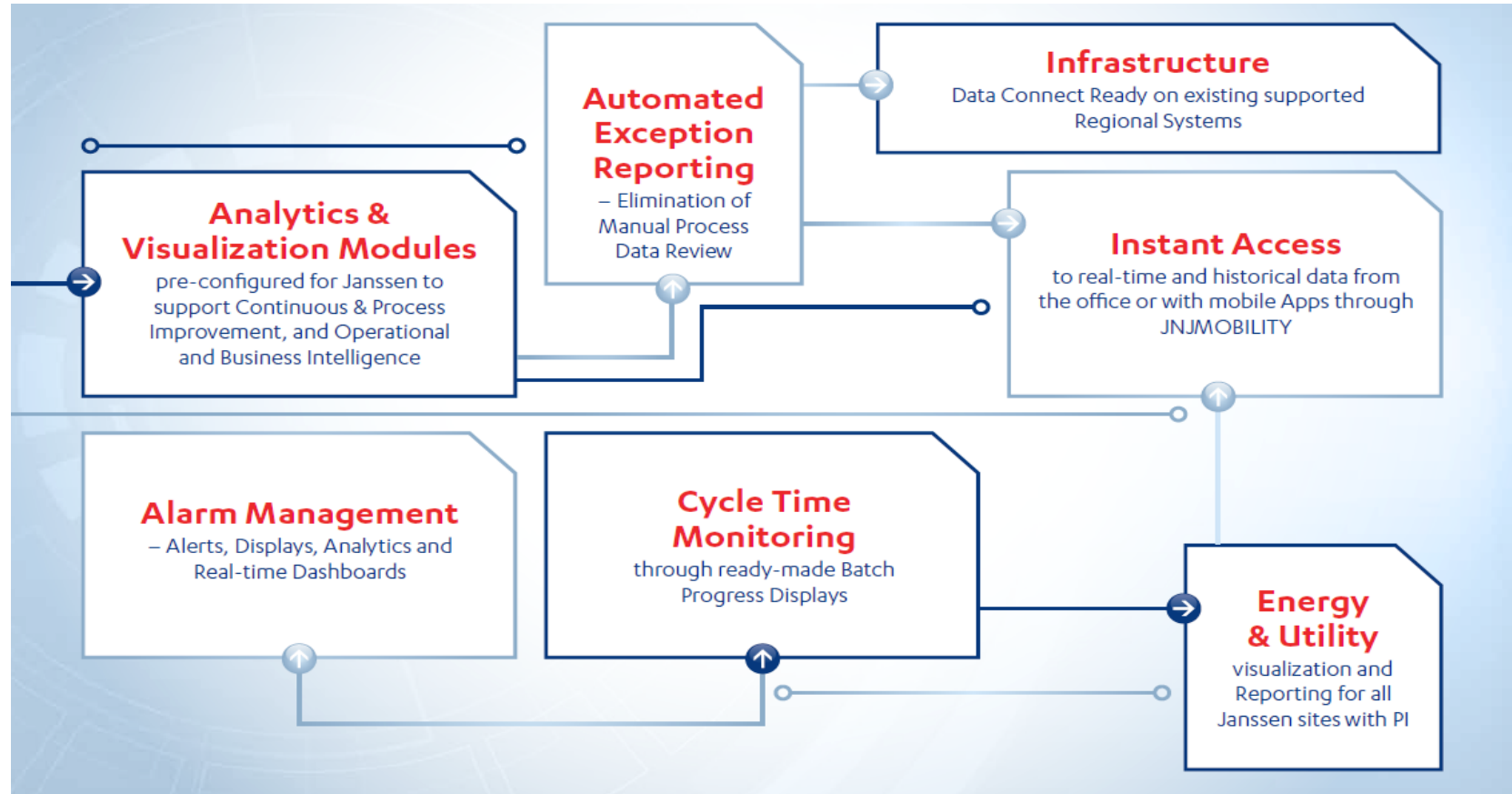
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Other Active Initiatives



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The Next Steps

Further collaboration with Technical and Business Systems Owners and establish integration of Standard PI AF and **Visualization** with Business Processes.

Build on success and emerging demand for standardized modules - increase roll out to sites.

Integrate fully with ES Standards Team whilst maintaining the key working structure of the SPIRIT Team. Enhance focus on measure the benefits metrics.

Connect with internal and external partners to collaborate on standardization and best practices to benefit of all.

Formalize the Standards and complete development of JNJ Playbooks & Standard Content, Execution and Visualization Templates.

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- Johnson & Johnson

THANK YOU

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