



# Benefits of a Standardized PI System

Presented by Axel Wils

*Johnson & Johnson*

# Agenda

## Introduction

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



# What is SPIRIT?



Standardize

Janssen R&D and  
Manufacturing

CPV, Process  
Visualization and  
Energy Monitoring

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

# Agenda

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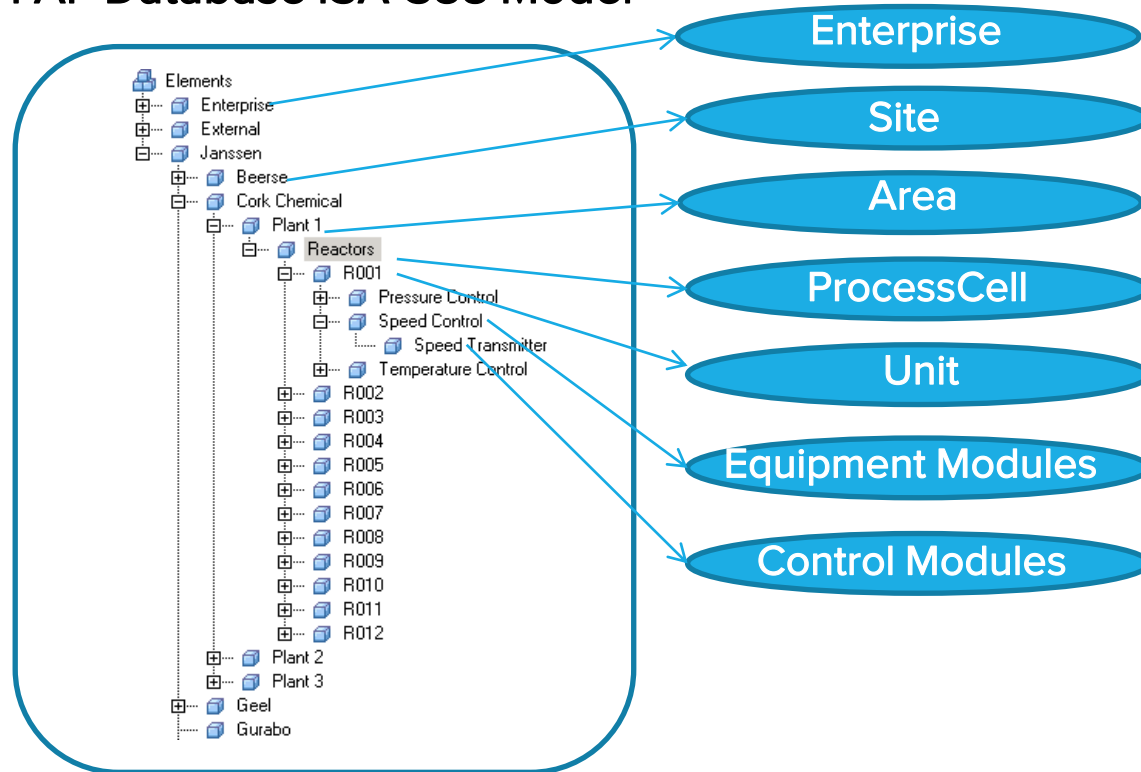


# Standardized Content – Define the Standard

Content



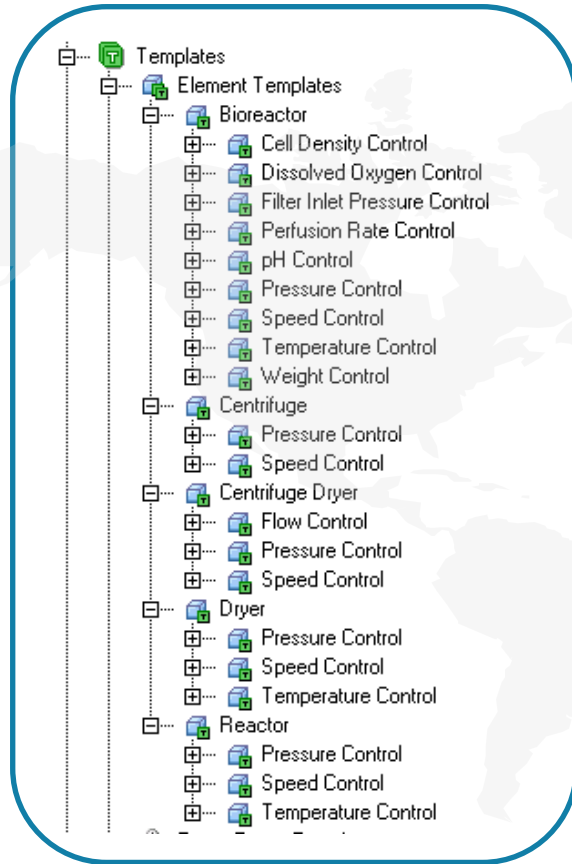
## PI AF Database ISA-S88 Model



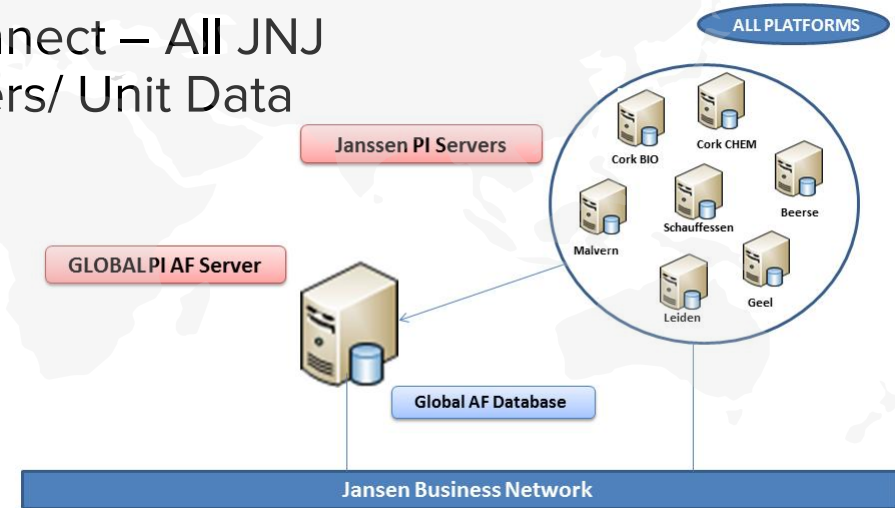
- Connect - Standardizing Groups for CPV, Recipe Delivery and Execution Systems
- Connect - Business and Technical Owners
- Review - Platforms: Small Molecule, Large Molecule, Solids, & PDMS
- Identify - Key Unit Types and Unit Process Parameters

# Standardized Content – Implement Global PI AF

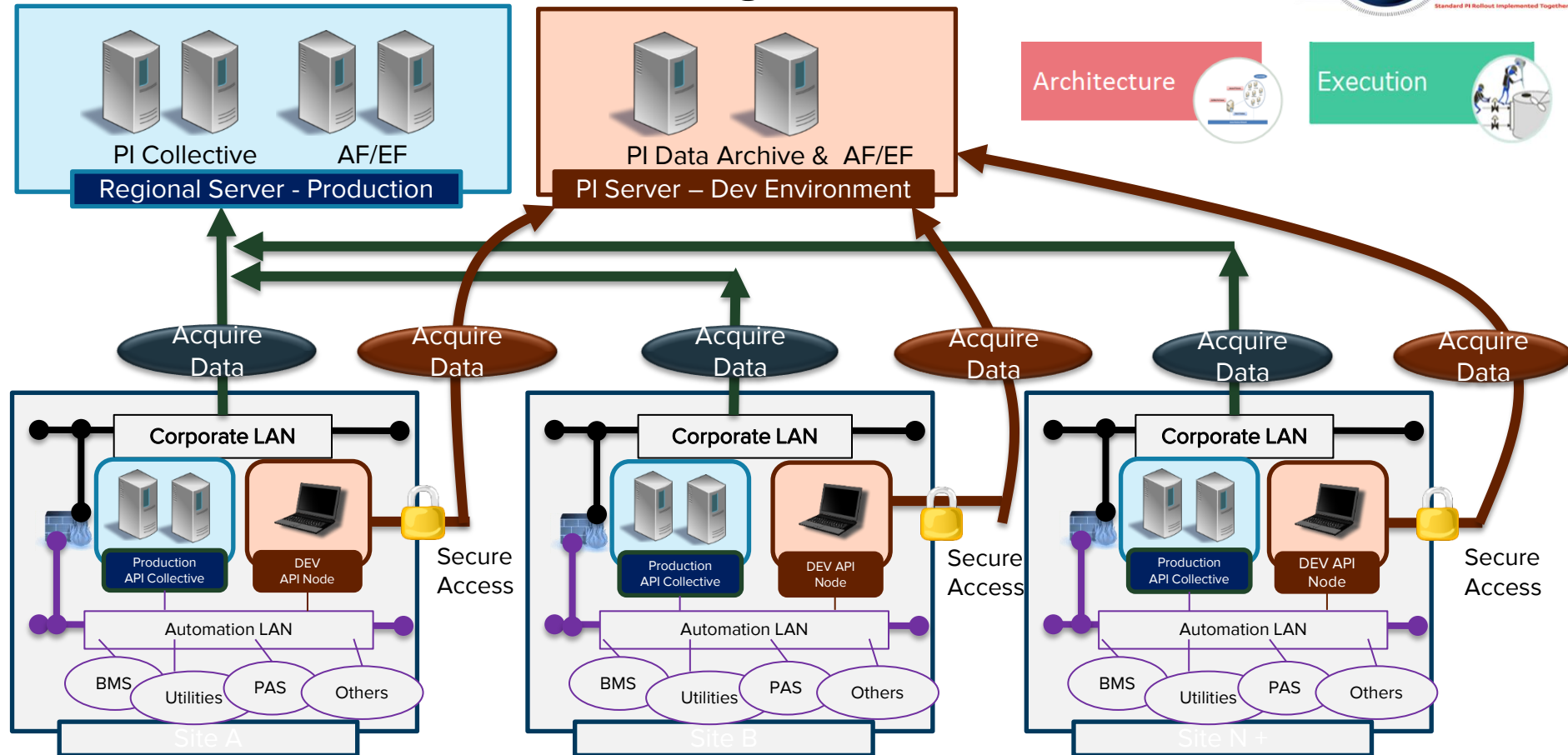
Content



- Global Server – Create a Global Asset Framework (AF) DB
- Implement – Global Unit Templates and 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

Mod2

CFD321

R321

R322

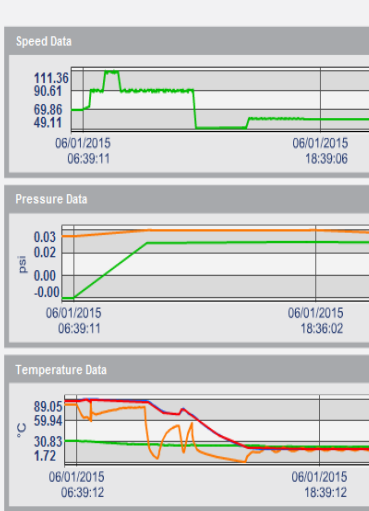
R323

Mod3

CFD331

QCM016

R331



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

Mod1

CFD311

R311

R312

Mod2

CFD321

R321

R322

R323

Mod3

CFD331

QCM016

R331

R332

Cork Chemical: Reactor - R221

Search

BATCH LIST

Name	Start
orkIABBV221	04/25/2015 20:1
orkIABBV221	04/27/2015 03:3
orkIABBV221	05/01/2015 20:1
orkIABBV221	05/03/2015 19:4
orkIABBV221	05/05/2015 00:1

PHASES/OPERATIONS

Name	Start	End
I15DC1721	04/25/2015 20:1	04/27/2015 03:3
I15DC1746	04/27/2015 03:3	05/01/2015 20:1
I15DC1721	05/01/2015 20:1	05/03/2015 19:4
I15DC1746	05/03/2015 19:4	05/05/2015 00:1

TAGS/ATTRIBUTES

Name	Value
R221/Temperature Control/Temperature Transmitter Jacket/Temperature.PV	11.317
R221/Temperature Control/Temperature Transmitter Contents Middle/Temperature.PV	73.277
R221/Temperature Control/Temperature Transmitter Contents Bottom/Temperature.PV	21.150
R221/Speed Control/Speed Transmitter/Speed.PV	74.036

Process Visualisation



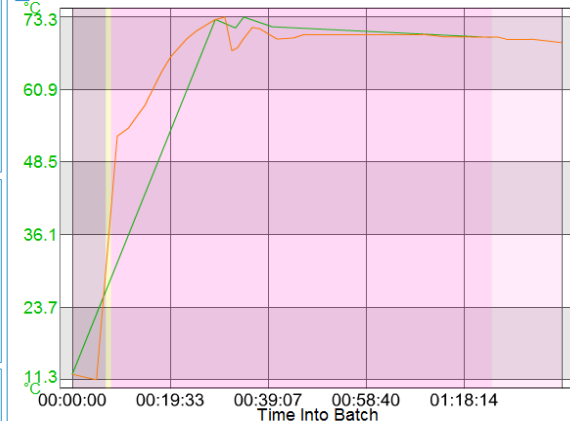
Schedule Attainment

Unit Information

View Cycle Times

Export Trend Values

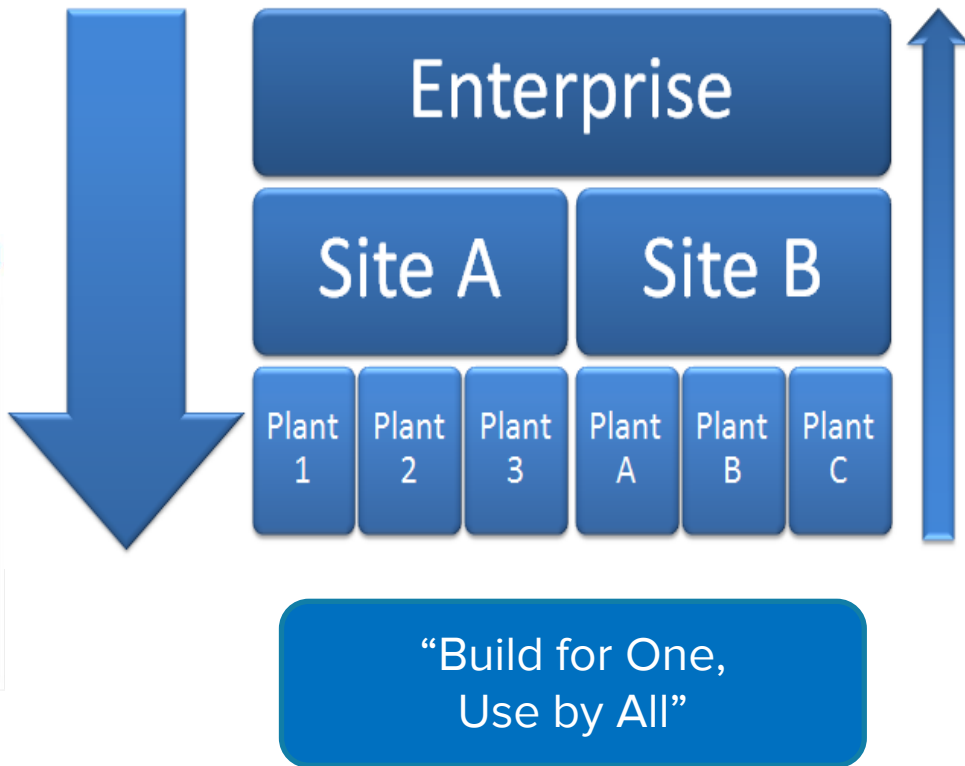
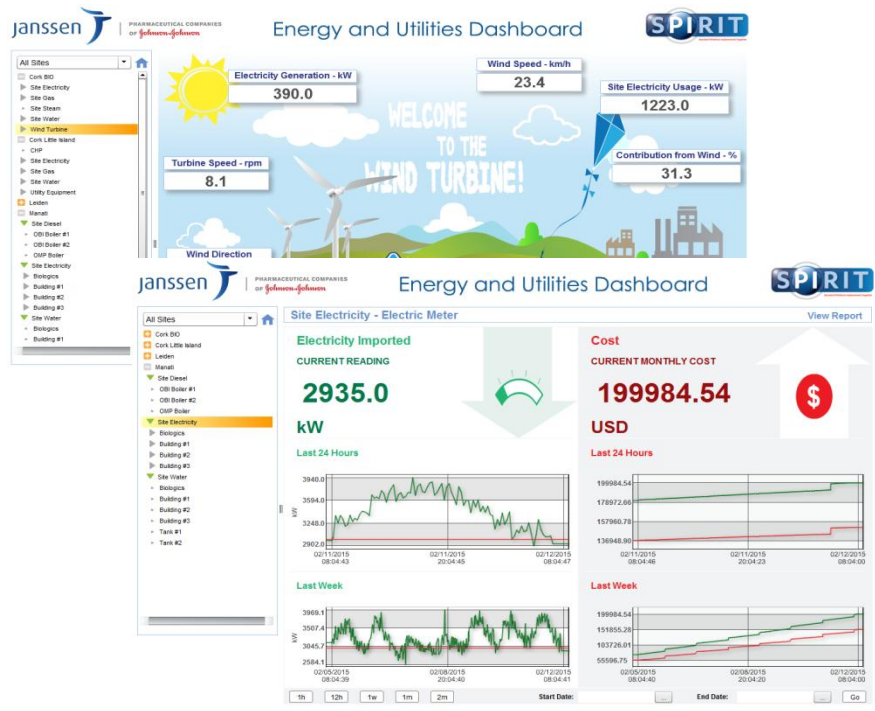
LY CHART



M	H	Color	Min	Max	UOM	Value	Label
		Green	11.317	73.277	°C	-25	R221/Temperature Control/Temperature Transmitter Contents Middle/Temperature.PV
		Orange	21.150	74.036	°C	-25	R221/Temperature Control/Temperature Transmitter Contents Bottom/Temperature.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

# Agenda

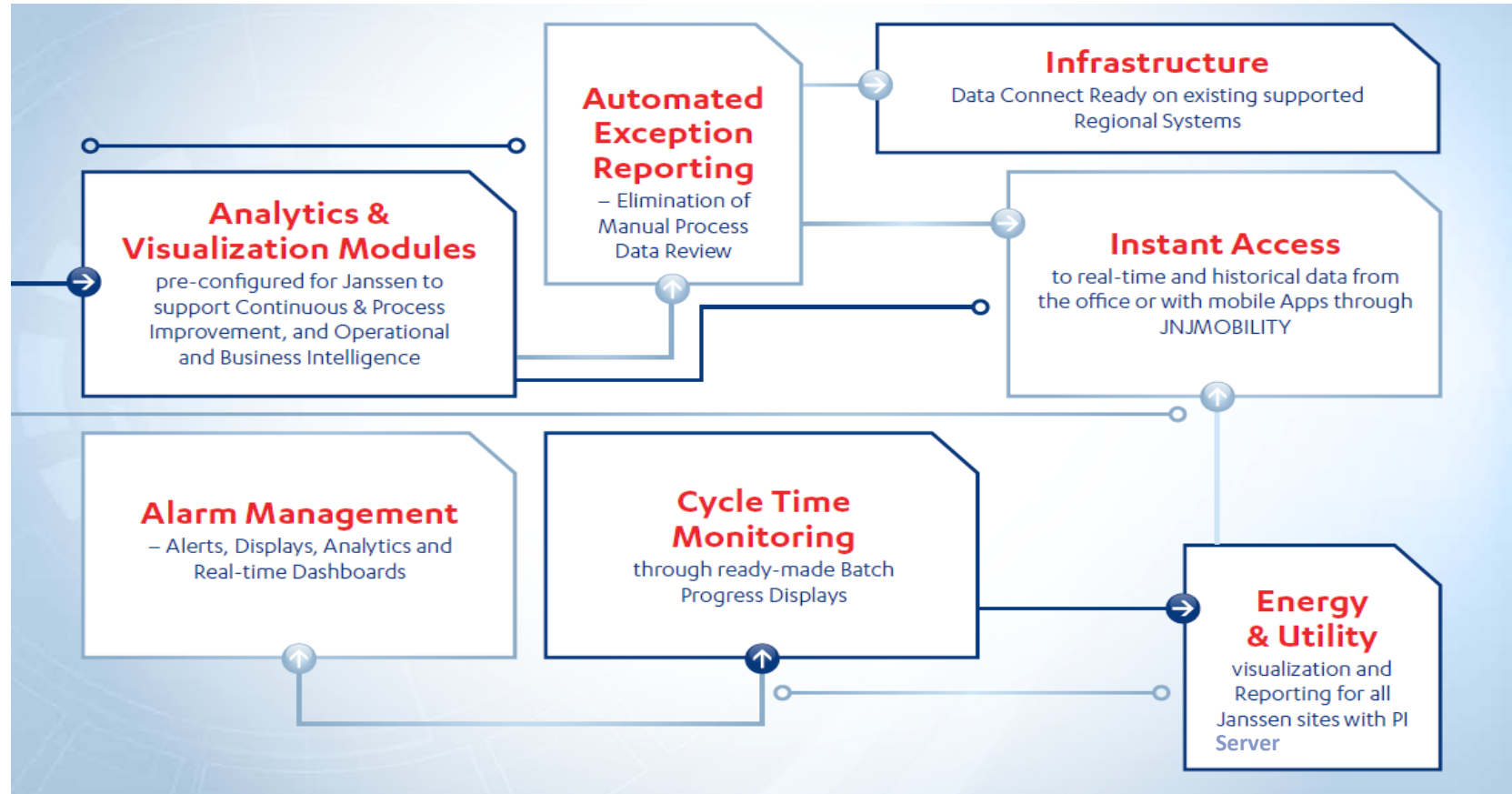
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# Other Active Initiatives



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Next Steps





# 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.

# Contact Information

Axel Wils

[AWils@its.jnj.com](mailto:AWils@its.jnj.com)

IT Lead

Supply Chain & Manufacturing Services  
Johnson & Johnson

# Questions

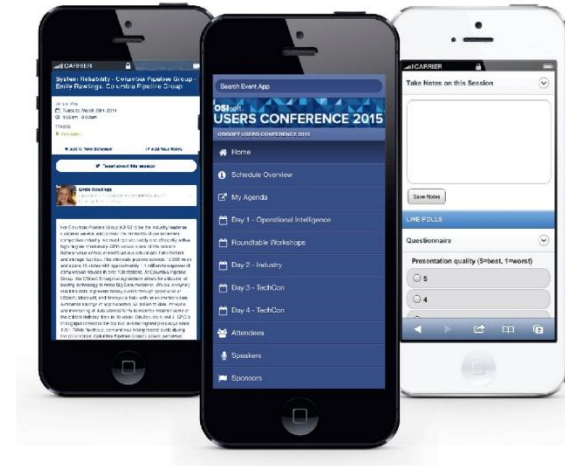
Please wait for the **microphone** before asking your questions



State your  
**name & company**

# Please don't forget to...

Complete the Online Survey  
for this session



<http://eventmobi.com/emeauc15/>



감사합니다

谢谢

Danke

Merci

Gracias

Thank You

ありがとう

Спасибо

Obrigado