



# Industry Day Life Sciences & Specialty Chemicals



# Your hosts today



Petter Moree  
Industry Principal  
OSIsoft



Paula Baquer  
Industry Champion  
OSIsoft



Tim Alosi  
Head Analytics  
Biogen

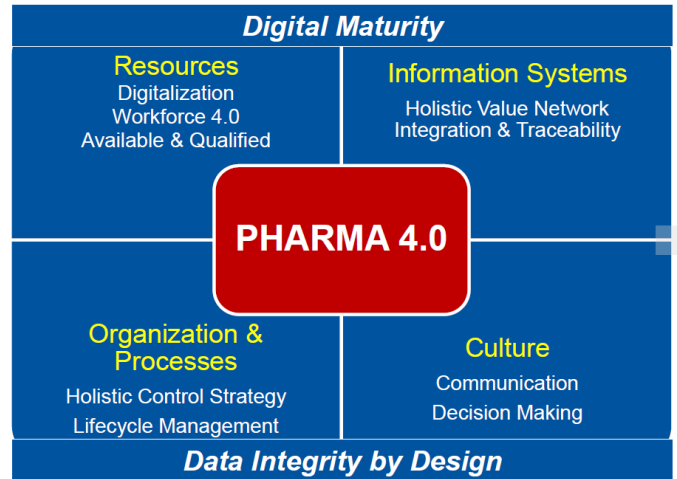
Time	Title	Presenter(s)
9:00 – 9:15	Welcome to the Life Sciences, Specialty Chemicals Industry Track	Petter Moree, Paula Baquer – OSIsoft Tim Alosi – Biogen
9:15 – 10:00	Creating a global PI Solutions Store to Ease Site Deployment and Increase Compliance	Julien Cloots – GSK
10:15 – 11:00	PI System Deployment and Validation end to end in a GxP Environment	Flemming Rask Christensen – NNE Jonas Toftemark – Novo Nordisk
11:15 – 12:00	Deep Dive into Real Business Use Cases and Tangible Benefits with the PI System in Shire	Thomas Filz, Christian Bugl – Shire
12:00 – 13:45	Lunch	
13:45 – 14:30	BTT: Online Process Monitoring using Historical Process Data	Manuel Martin – Lubrizol
14:45 – 15:30	Use of PI System and SIMCA-online to build a Real-Time MSPC System	Anna Persson – Sartorius Phuong Vo – Janssen
15:30 – 16:00	RCIP, Data Analytics and Manufacturing Process Optimization at Lonza	Thomas Hsu – Lonza
16:00 – 16:15	Llife Sciences User Group Introduction with Snacks	Tim Alosi – Biogen
16:15 – 17:15	Round Table Panel Discussion	Gus Green, Erneste Bove, Cassandra Murillo, Thorsten Ulbricht, Tim Alosi, Julio Lopez Ortega, Petter Moree, Paula Baquer
17:15 – 17:45	Workshop Breakout session	John de Koning, Liana Peysakhovich, Stephen Kwan, Ellery Murdoch
17:45 – 18:00	Closing	Tim Alosi, Petter Moree

# What is going on?

## PHARMA 4.0 – Operating Model

The PHARMA 4.0 Operating Model enables and controls the Holistic Control Strategy Lifecycle Management with Data Integrity by Design based on the organizations Digital Maturity within the Industrie 4.0 architectural framework.

Source: ISPE SIG "PHARMA 4.0"



### Data Integrity by Design

- Risk-based
- Process maps
- Data flows
- Flexibility
- Robustness

Ref Ian Thrussell, Expert Inspector WHO

# Plug & Produce

## Data Centric

- Accessible
- Scalable

## User Driven

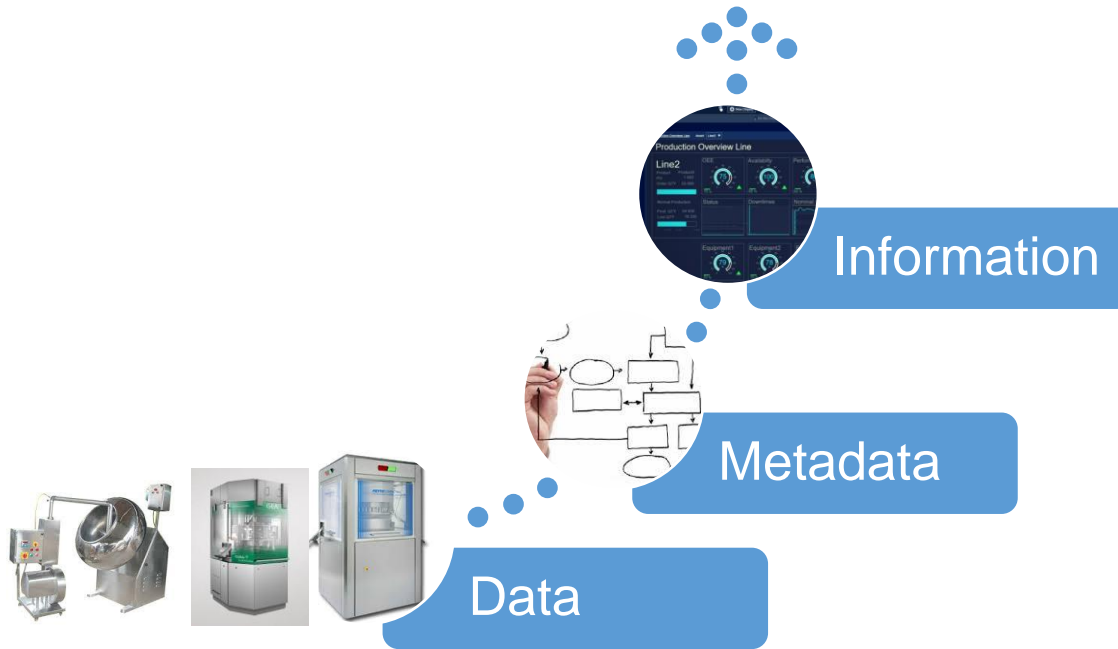
- Agile
- Transparent
- Value driven

## Data Integrity

- Risk-based
- Audit Trail
- Process maps
- Flexibility
- Robustness

# Data Centric Approach

Plug & Store



# Consumers of Information and Data

## Management



- Are we meeting targets and KPI
- Consolidated data in context of other data like KPI e.g. OEE
- Low granularity

## MSAT



- What is the risk and how are the CPP influencing the CQAs
- Process, material, IPC and Quality data
- Hour to days

## Supply Chain



- Are we able to deliver in time, do we have the materials we need
- Combine EBR and Operations data
- Days

## R&D



- Building knowledge management on science & risk
- Experiment, pilot and material data, processes and performance
- Minutes

# Consumers of Information and Data

## Qualified Person



Is the batch within specs?

Aggregated data from the process.

Hours to days

Reporting (EBR/RbE)

## Engineering



Is process performing. Can we optimize process?

Context of overall process

Seconds to min

## Maintenance

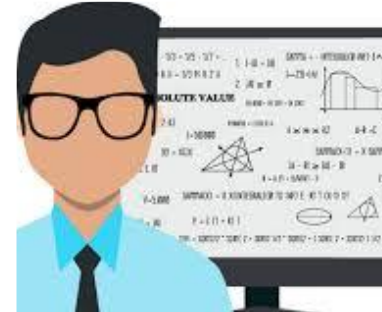


When is maintenance best performed?

In context of predicted asset performance with automatic notification

Minutes to hours

## Data Scientist



- What is the correlation and causality between different data?
- Normalized, easily accessible validated data
- Very different



# Factory of the Future 2015

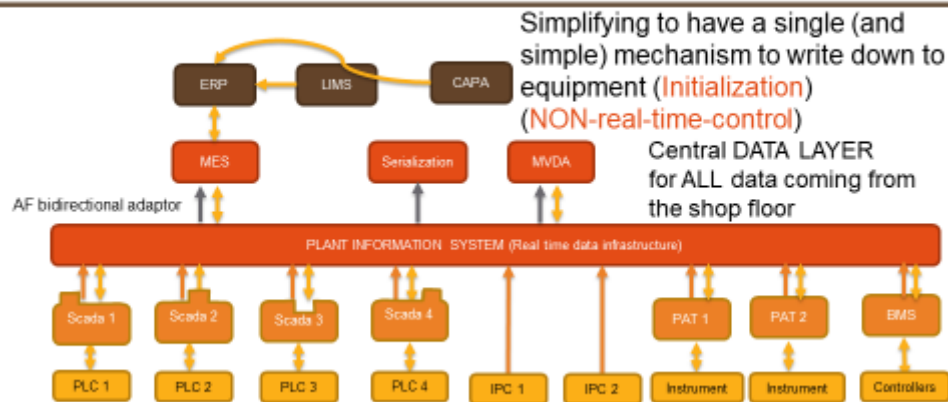
Plug & Store

Equipment Connectivity

R.U.T.H. backbone

And also ...building a central data GATEWAY

Using a central infrastructure to write down

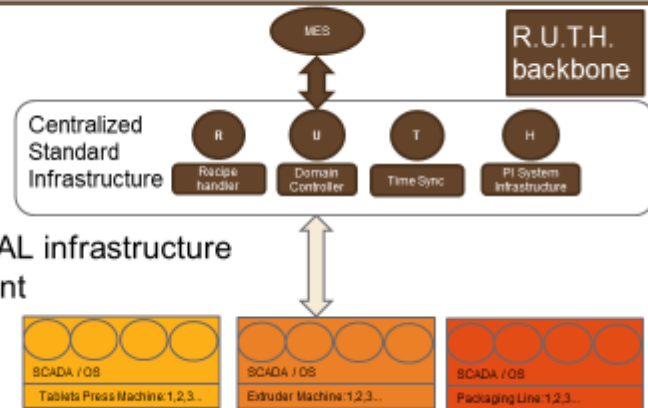


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Create a CENTRAL infrastructure  
Simplify Equipment

~~Data~~ Integrity



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# Community of operation

Enterprise

Site A

Site B

Site C

CMO

CDMO

CMA

Plant  
API

Plant  
OSD

Plant  
Bio

Pack

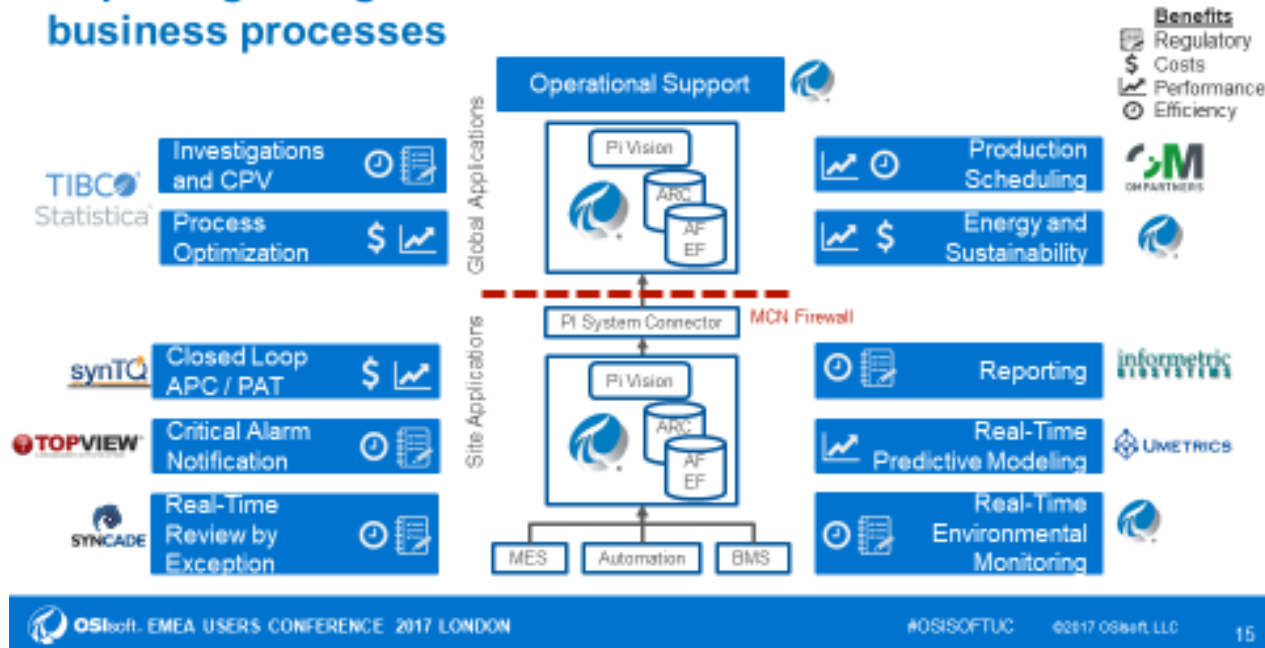
Plant  
API

Pilot

Mater

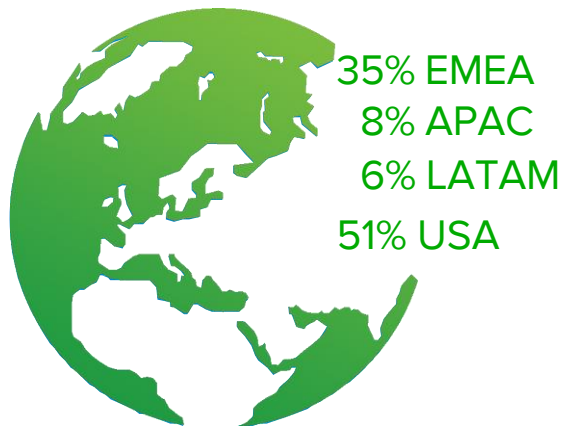
# Next Generation Manufacturing

Capturing a single version of truth enables critical business processes



# LIFE SCIENCES USERS' GROUP

537  
PLUS  
MEMBERS



OVER  
170  
COMPANIES  
REPRESENTED



<https://pisquare.osisoft.com/groups/life-sciences>

# Steering Committee Members

Name	Company	Role
Tim Alosi	Biogen	Chair
Cassandra Murillo	Regeneron	Secretary
Kurt Creutzburg	Novo Nordisk	Member
Brian Goldinger	Lilly	Member
Myles Sumlin	Genentech	Member
Thorsten Ulbricht	Roche	Member
Anthony Narag	Shire	Former Chair
Petter Moree	OSIsoft	Support Staff
Paula Baquer		
Isabelle Lacaille		
Jarita Sirois		

# Today's Program



Analytics with MATLAB  
RT Reports update  
Advanced Event Frames  
Visualization  
Selling Ideas to Leaders



Global Deployment  
Capturing Context  
Cloud Migration  
Maximizing Data Value

# Today's Program:

- **16.00 - 16.15 – Opening Remarks**
- **16.15 -17.15 – Round Table Panel Discussion**
- **17.15 -17.45 – Workshop Breakout Session**
  - **How to sell your ideas to management**  
John de Koning, Business Transformation Group
  - **Discover RtReports 4.1**
    - Liana Peysakhovich, Software Developer RtReports Lead
  - **Analytics with MATLAB and PI System**
    - Stephen Kwan, Product Manager, PI Server
  - **Advanced Event Frames**
    - Ellery Murdok, Event Frames Initiative Lead
  - **A walk through PI Vision**

# Today's Panelists

Ernesto Bove

Founder & CEO e-matica



Gus Green

Manager, Automation  
Systems Team



Cassandra Murillo

Associate Manager,  
PMPD Data  
Management



Julio Lopez Ortega

Abbott Laboratories, S.A



Thorsten Ulbricht

Technical Project  
Manager





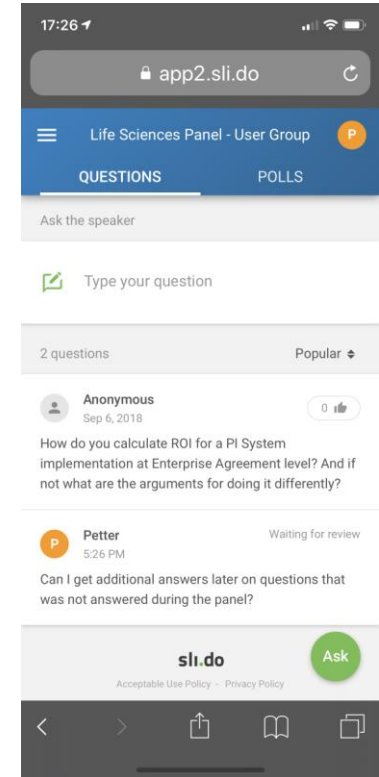
# Ask Your Questions to the Panelists Today



**Global Deployment**  
**Capturing Context**  
**Cloud Migration**  
**Maximizing Data Value**

<https://www.sli.do/>

Event code: **#LSPUG**



# Feedback walls



- Product Feedback
- Community Feedback
- PUG Feedback
- Share your ideas

<https://feedback.osisoft.com>

# Your voice is heard!

- “As an Event Frame consumer, I need write access to event frames, so that I can manually enter data into an EF attribute, such as the event reason code.”
  - You can now add a reason code since PI AF 2017 R2 and PI Vision 2017 R2
- “As an Event Frame template author, I want to have access to more substitution parameters when naming my Event Frames”
  - Now possible to use attribute values, such as like the Batch ID and Product Name when naming your event frames. This was added in PI AF 2017 R2
- “As a user of Event Frames in PI Coresight/Vision, I would like to identify a golden batch so that I can overlay data from other events and compare.”
  - Available as of PI Vision 2017 R2
- User engagement driving PI System Connector, Asset Analytics and Event Frames, and data integrity features