



Data Sharing in a Contract Manufacturing Environment

Presented by **Doug Berg, Brian Goldinger (Eli Lilly)**
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Agenda for Today's Presentation

- About Lilly and ATS
- Business Context and Needs
- System Architecture
- OSIsoft Applications for Contract Manufacturing
- Implementation Phases
- Use of AF Analytics to standardize machine performance calculations
- Automate existing production reports
- Creating reports to identify alarms
- Near real-time visualization of process data
- Challenge – Solution – Results
- If You Found This Interesting...
- Contact Information for Presenters

Eli Lilly and Company

Key Facts

Lilly at a Glance

- A heritage 140 years strong: company founded on May 10, 1876
- Headquarters located in Indianapolis, Indiana, U.S.A.
- Approximately 41,000 employees worldwide
- More than 9,000 employees engaged in research and development
- Clinical research conducted in more than 55 countries
- Research and development facilities located in six countries
- Manufacturing plants located in 13 countries
- Products marketed in 120 countries
- Third largest medical device manufacturer worldwide
- Net sales: \$19,958.7 (dollars in millions)



Lilly and OSIsoft

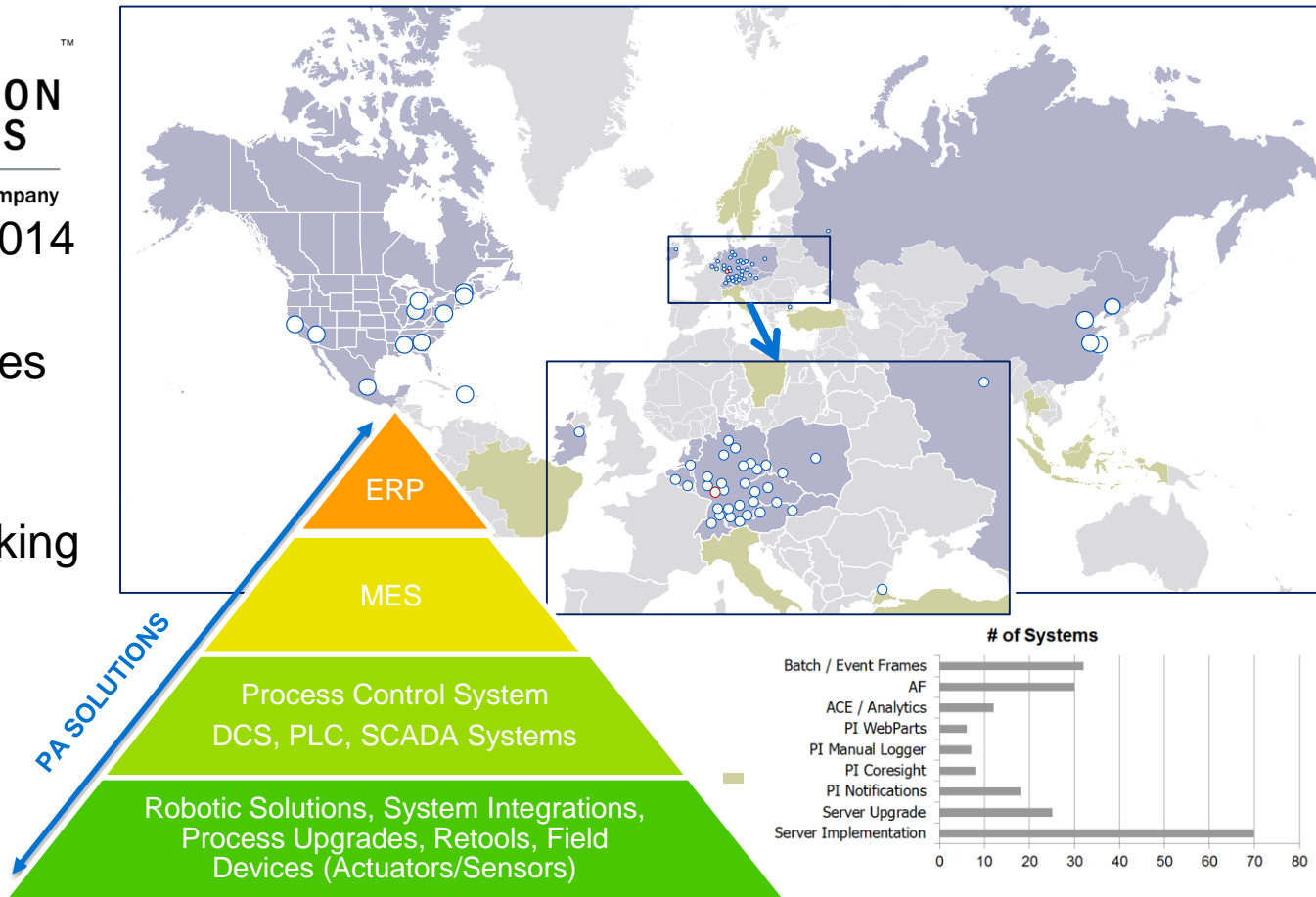
- PI System® user since 1995, with implementations across 22 manufacturing facilities worldwide
- 1 million estimated PI Tag™ count
- This presentation is focused in the Medical Device component of our Manufacturing division.



PROCESS AUTOMATION SOLUTIONS™

an  company

- Acquired September 2014
- Founded in 1986
- Presence in 16 countries
- Network of 47 offices
- 25+ (5 Accredited) engineers actively working on OSIsoft projects
- Industry Segments
 - Pharma/Biotech
 - Food & Beverage
 - Mining/Metals
 - Power Generation



Business Context

- Lilly's medical devices are assembled as discrete parts from discrete components
- Throughput up to 240 ppm today
- Lilly oversees the design of and owns the custom assembly equipment located at our Contract Manufacturers (CMs)
- Joint process teams (Lilly/CM) monitor and improve production performance
- Typical Device CMs have lean business models; no historians



Humalog® U-200 KwikPen®



Business Needs

- Reduce manual collection of performance data
- Harmonize data analysis for performance
 - Multiple Contract Manufacturer sites (CMs)
 - Multiple products
 - Standard KPI's across CMs
- Enable SPC/trending to anticipate/avoid downtime
- Identify/justify improvement projects
 - Metadata from smart instruments
- Enable Lilly engineers to assess performance independent of CM, without assistance

Data Sharing in a Contract Manufacturing Environment

COMPANY and GOAL

Eli Lilly and Company, a global leader in healthcare, continuously optimizes the performance of its medical device assembly lines at contract manufacturers to assure adequate supply control of expenses.



CHALLENGE

The data environment in medical device assembly at contract manufacturers must be enhanced to enable the next level of performance

- Process engineers must work in a data rich environment to be effective in process improvement
- The competitive landscape continues to drive optimization of manufacturing

SOLUTION

The PI System® and PI Cloud Connect™ enable the contract manufacturer and Lilly to be more effective

- Potential for implementation at 5 CM sites

RESULTS

Come back to #OSIsoftUC next year to find out!

If You Found This Interesting...

- This is really the second half act of a two-act play.
- We had another presentation at the User Conference, where we discussed how this solution is used during the OEM portion of the supply chain.
- If you sat through “Data Sharing in an OEM Environment” AND this presentation, medals will be handed out at the back of the room 😊
- (or, find a TARDIS and go back in time to watch Act I...or check out the conference proceedings for information on Act I: “Data Sharing in an OEM Environment”)

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Questions

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



State your **name & company**

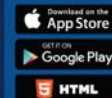
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谢谢

Danke

Merci

Gracias

Thank You

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Спасибо

Obrigado