Shaping Your Journey to Operational Intelligence

(in the Process Industries)

Presented by   Perry Zalevsky

Industry Principal, OSIsoft

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Agenda

- Welcome
- Safety
- Today's Agenda
- Operational Intelligence
- Thoughts

Safety

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Today's Agenda

INDUSTRY	Process Industries - Athens/Barcelona, Lobby Level
9:00 - 9:20	**Shaping Your Journey to Operational Intelligence in the Process Industries - OSIsoft**
9:20 - 9:50	Predictive Maintenance by Sending PI Notifications to SAP PM to Initiate Automatic Preventive Maintenance Tasks – Stora Enso Langerbrugge
9:50 - 10:00	
10:00 - 10:30	OEE POC for Discrete Manufacturing in 28 Days - Sandvik, Amitec
10:30 - 11:00	
11:00 - 11:30	Enterprise-wide Operational Intelligence System at San Francisco Wastewater – San Francisco Public Utilities Commission
11:30 - 11:40	
11:40 - 12:10	Enabling Operational Intelligence for a Small Scale Bio-LNG Plant – Osomo Projects BV

Today's Agenda (cont.)

12:10 – 14:00	Lunch
INDUSTRY	**Process Industries - Athens/Barcelona, Mezz Level**
14:00 – 14:30	Complete Vertical Integration with OSIsoft's PI System to Achieve Consistent Global Quality – Atotech, SpiraTec
14:30 – 14:40	
14:40 – 15:10	An Enterprise Agreement For Barrick Gold: Timing is Everything – Barrick Gold
15:10 – 15:40	
15:40 – 16:10	Panel Session
16:10 – 16:20	
16:20 – 16:50	Panel Session
16:50 – 17:15	Wrap Up

The OSIsoft Vision

We believe People with Data can Transform their world

Typical Process Company's Vision

Commodity Production: Low Cost Producer

Sustainability: Eliminate / Minimize Risk

Value-Add Production: Products that Differentiate

What Challenges / Opportunities Are There?

Challenge – Market Conditions

- Commodity or Market Prices
- New or Improved Operations / Known Technology Competition
- New, Competitive Manufacturing Technologies

Challenge – Cost Headwinds

- Energy Costs
- Raw Materials Costs
- Labor Costs
- Logistics / Transportation Costs
- Aging Assets / Sustaining Capital Requirements

Other Challenges

- Uneven Global Economic Recovery
- Environmental Regulations / Reporting Requirements
- Keeping Pace with Technology

Opportunities

- Commodity Market Growth in Developing Countries
- Market Pull for New Materials / Alloys (Strength, Weight)
- Sustainable Materials

Where Do Companies Find Value?

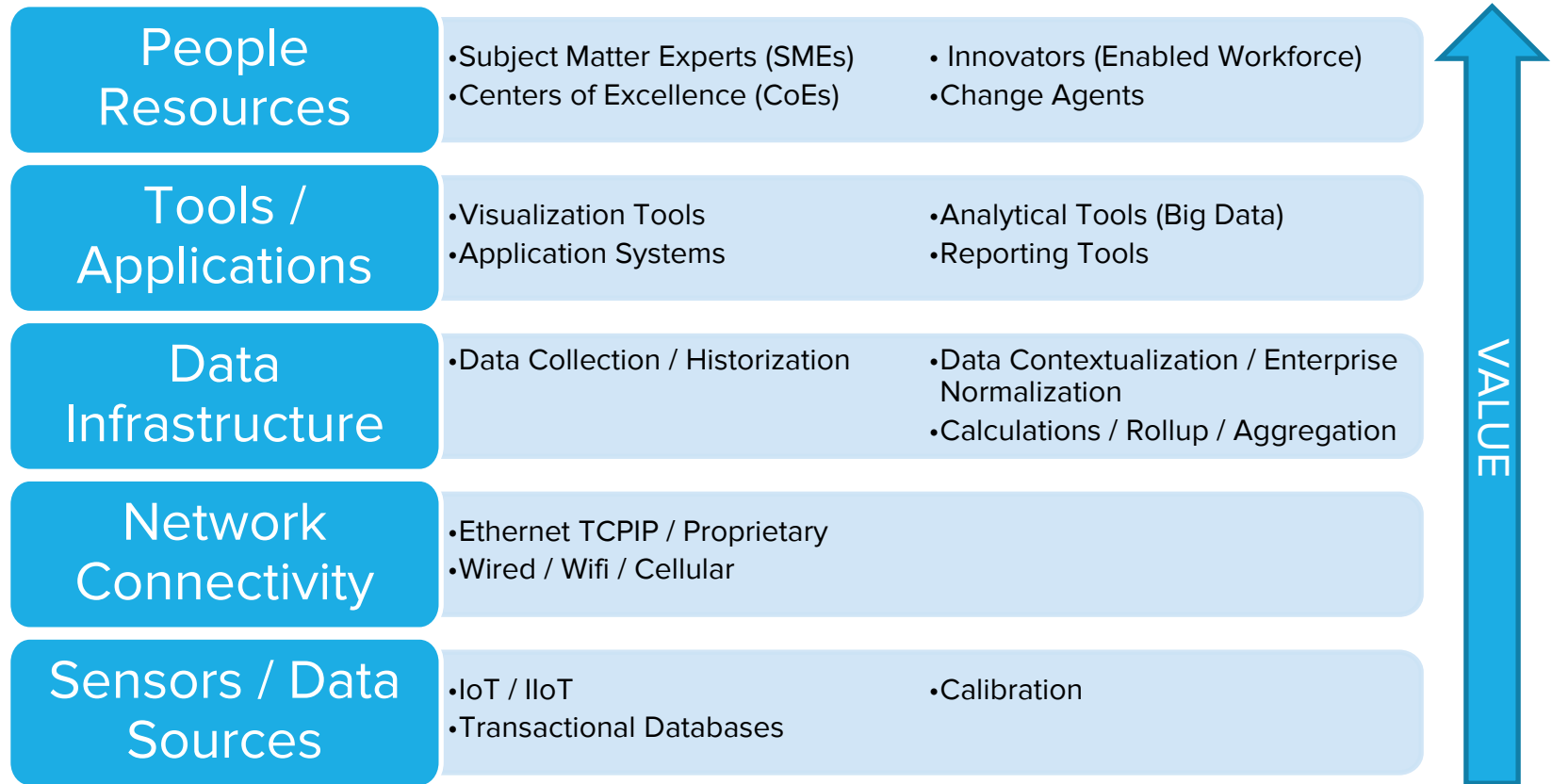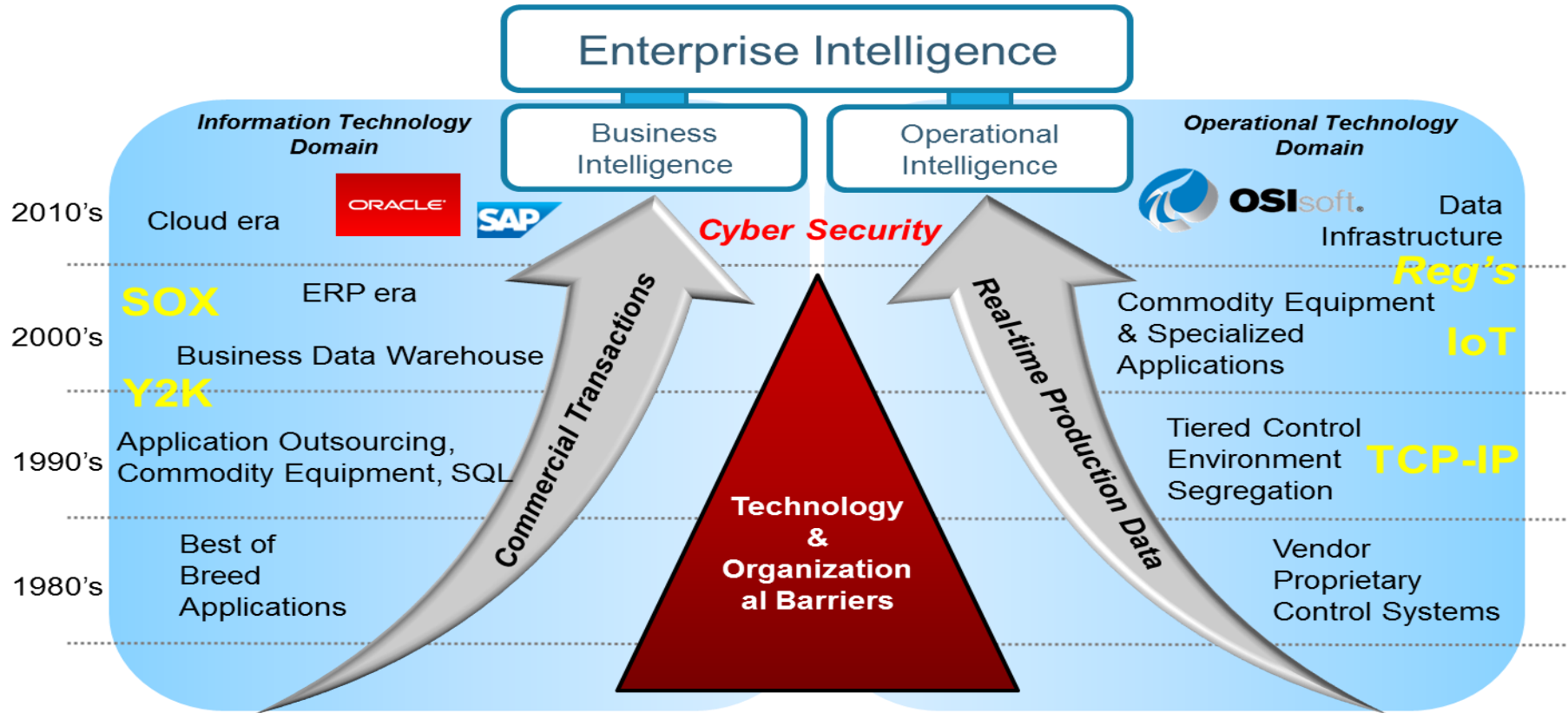| Process Productivity	Energy and Water Management	Asset Performance and Reliability	Environmental, Health and Safety Compliance	Quality Assurance
Making the process better **Small changes are worth a lot** **These companies are already efficient** **It's about going to the next level, sustaining the improvements**	**Monitoring and Managing Energy and Water** **Fuel for all of the mobile equipment**	**Keep the machines running** **Improve uptime** **Reduce unplanned downtime** **Condition-based maintenance**	**Governmental regulations** **Accidents and incidents** **Environmental monitoring** **Compliance/Audit**	**Certifications** **Real-time monitoring** **Genealogy (history)** **Yield**

Data to Value: Recognizing the Critical Contributors

People Resources	• Subject Matter Experts (SMEs) • Centers of Excellence (CoEs)	• Innovators (Enabled Workforce) • Change Agents
Tools / Applications	• Visualization Tools • Application Systems	• Analytical Tools (Big Data) • Reporting Tools
Data Infrastructure	• Data Collection / Historization	• Data Contextualization / Enterprise Normalization • Calculations / Rollup / Aggregation
Network Connectivity	• Ethernet TCPIP / Proprietary • Wired / Wifi / Cellular	
Sensors / Data Sources	• IoT / IIoT • Transactional Databases	• Calibration

VALUE ↑

Recognizing IT/OT Convergence

What Type of Approach is Best?

PROJECT

Pros:
- Well Defined, Limited Scope
- Single Design / Deployment
- More Manageable Initial Cost
- Common starting point

Cons:
- Site Based, One Off Solutions
- Not Easy to Leverage / Deploy 'Best Practices' or 'Standards' across Multiple Sites
- New Projects Require New Software / New Solutions / New Funding / **New Start**
- Cost / Complexity Increase Over Time

PROGRAM

Pros:
- Supports Transformation through Continuous Improvement Program
- Shorter Time to Value for Defined Value Initiatives
- Less Investment / Funding Required for Next Projects
- Leverage of 'Common Standards' or 'Best Practices'
- Provides Standard Approach to Technology / Minimizes Complexity
- Engages People

Cons:
- Higher Initial Funding Investment (Offset by Lower ongoing TCO and Stronger Value Realization)

Key Considerations for Today's Session

- What is your vision for the use of information in your company / division?

- What role does operational data play as a key part in your vision?

- What are you doing to establish operational intelligence in your company?

Contact Information

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谢谢

Danke

Merci

Gracias

Thank You

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Спасибо

Obrigado

Remember – It's All About the DATA!