

# Real-time Visibility for SAP in Aerospace & Defense:

*Cost Savings from Real-World Deployments*

## **Stephen Cloughley**

Senior Director  
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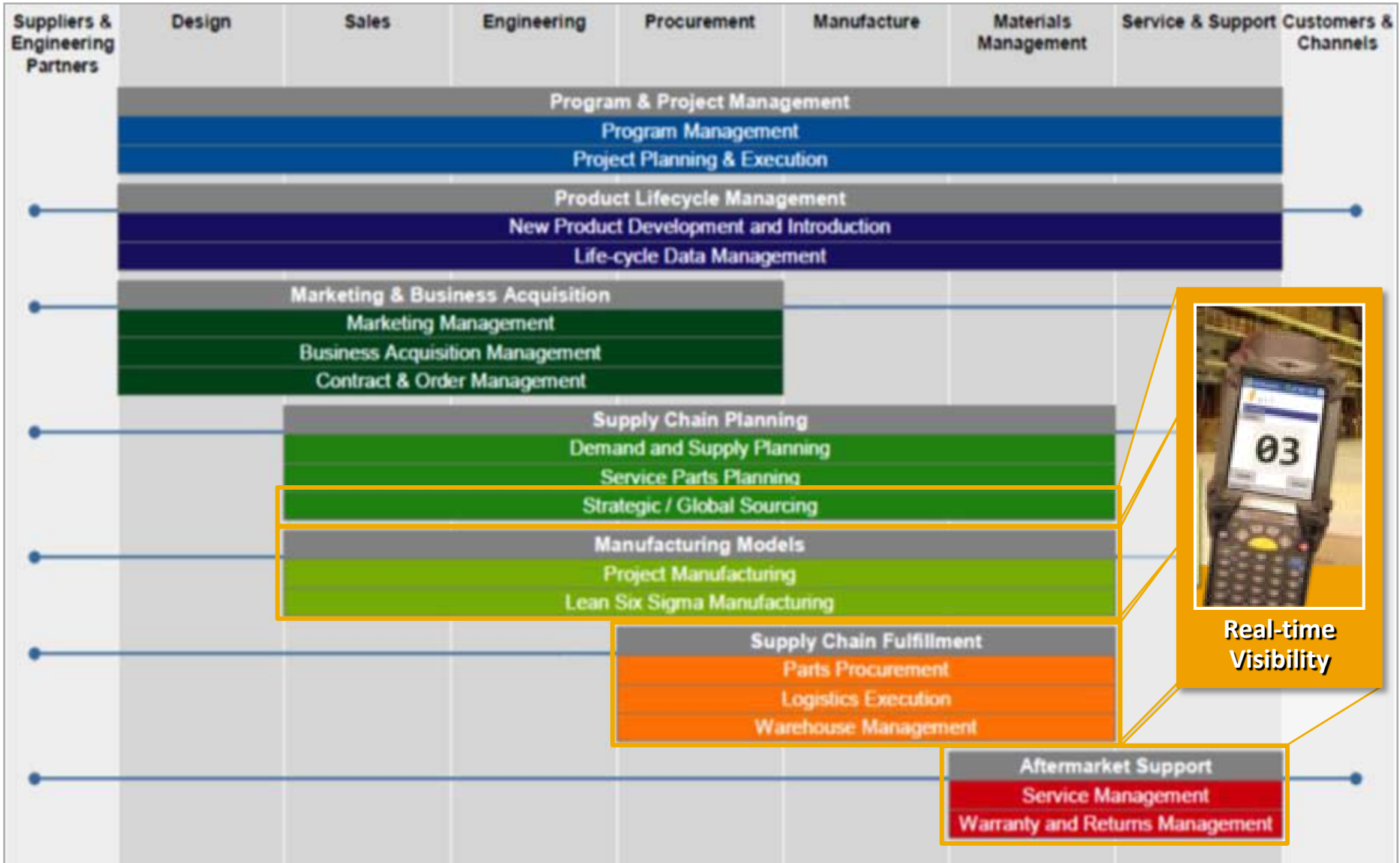
## **Dan Ahearn**

Director, Market Development  
OATSystems, Inc.



- **Real-time Visibility = Real Cost Savings for A & D**
- **Where visibility adds the most value in SAP solutions**
- **How SAP and OAT work together for a complete solution**
- **SAP-OAT Platform**
- **Walk Through Specific A&D Use Cases and Process Flows**
- **How to get started**

# Aerospace & Defense Solution Map



**Real-time  
Visibility**

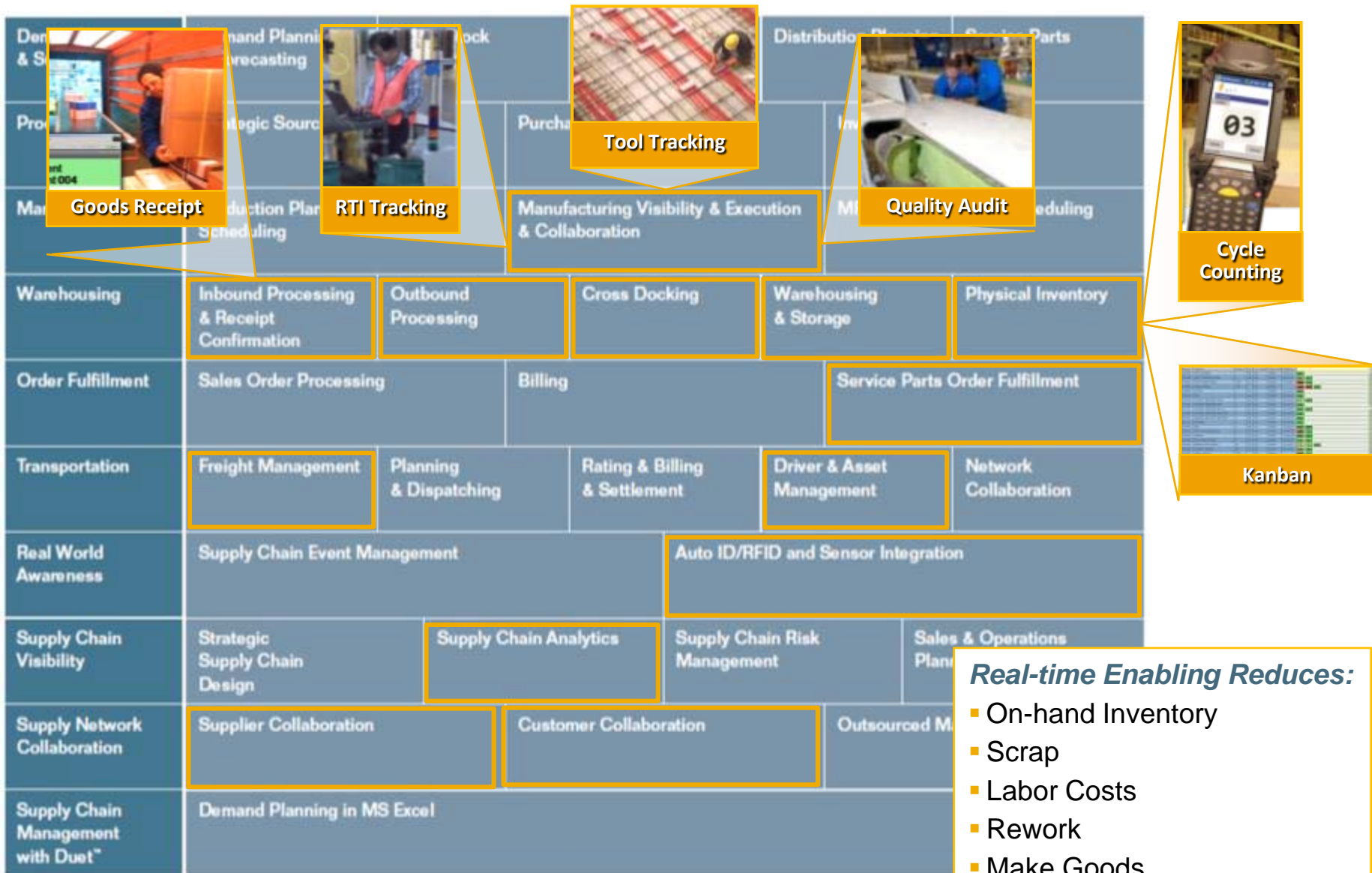
# Real-time Visibility



Demand & Supply Planning	Demand Planning & Forecasting	Safety Stock Planning	Supply Network Planning	Distribution Planning	Service Parts Planning
Procurement	Strategic Sourcing		Purchase Order Processing		Invoicing
Manufacturing	Production Planning & Detailed Scheduling		Manufacturing Visibility & Execution & Collaboration		MRP-Based Detailed Scheduling
Warehousing	Inbound Processing & Receipt Confirmation	Outbound Processing	Cross Docking	Warehousing & Storage	Physical Inventory
Order Fulfillment	Sales Order Processing		Billing		Service Parts Order Fulfillment
Transportation	Freight Management	Planning & Dispatching	Rating & Billing & Settlement	Driver & Asset Management	Network Collaboration
Real World Awareness	Supply Chain Event Management			Auto ID/RFID and Sensor Integration	
Supply Chain Visibility	Strategic Supply Chain Design	Supply Chain Analytics		Supply Chain Risk Management	Sales & Operations Planning
Supply Network Collaboration	Supplier Collaboration		Customer Collaboration		Outsourced Manufacturing
Supply Chain Management with Duet™	Demand Planning in MS Excel				

Figure: SAP® Supply Chain Management Solution Map

# Where Real-time Visibility Reduces Costs



- Real-time Enabling Reduces:**
- On-hand Inventory
  - Scrap
  - Labor Costs
  - Rework
  - Make Goods

Figure: SAP® Supply Chain Management Solution Map

Industry:	Cost – Benefit from Real-Time Visibility:
Agriculture	<ul style="list-style-type: none"><li>• Significantly reduced scrap product by tracking batch #s and expiration dates</li><li>• Reduced on-hand inventory with auto-replenishment, while improving customer satisfaction</li></ul>
Aerospace	<ul style="list-style-type: none"><li>• Reduced on-hand inventory with RFID-enabled Kanban</li><li>• Reduced tool stores</li><li>• Eliminate assumed receipts in logistics</li></ul>
Consumer Electronics	<ul style="list-style-type: none"><li>• Reduced on-hand inventory and rework costs</li></ul>
Pharmaceuticals	<ul style="list-style-type: none"><li>• Track movement of controlled substances in secured facilities</li></ul>
Industrial Equipment	<ul style="list-style-type: none"><li>• Reduced expedite and labor costs</li></ul>
Consumer Goods	<ul style="list-style-type: none"><li>• Increased sales of in-store promotions through on-time execution</li></ul>

# Real-time Visibility at an Aerospace OEM

Dan Ahearn, OATSystems

## Strategic Benefits:

- Real time visibility and automatic update of events across the value chain
- Unprecedented high level of information accuracy
- Move to a digital “fly by wire” supply chain

## Process Benefits:

- More efficient automated processes → shorter cycle times → less inventory
- Increased accuracy & control of business operations → less non conformities
- Increased traceability of part life cycle → less paper, less time → lower costs
- More automation → Less manual intervention → Improved labour productivity

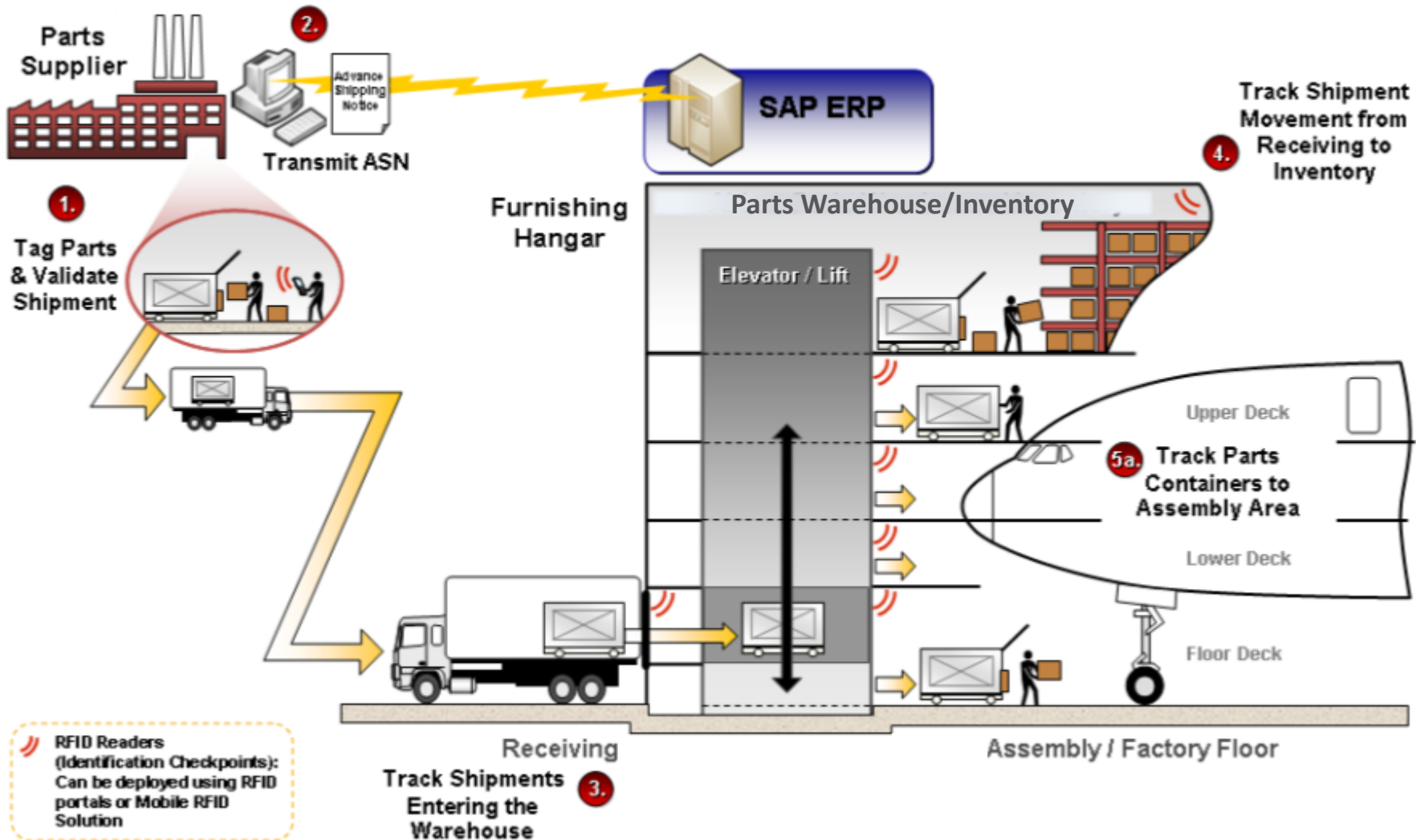
## Business Benefits:

- Business Benefits
- Reduction in Inventory & Capital Assets
- Increased Labour Productivity and better avoidance of Costs

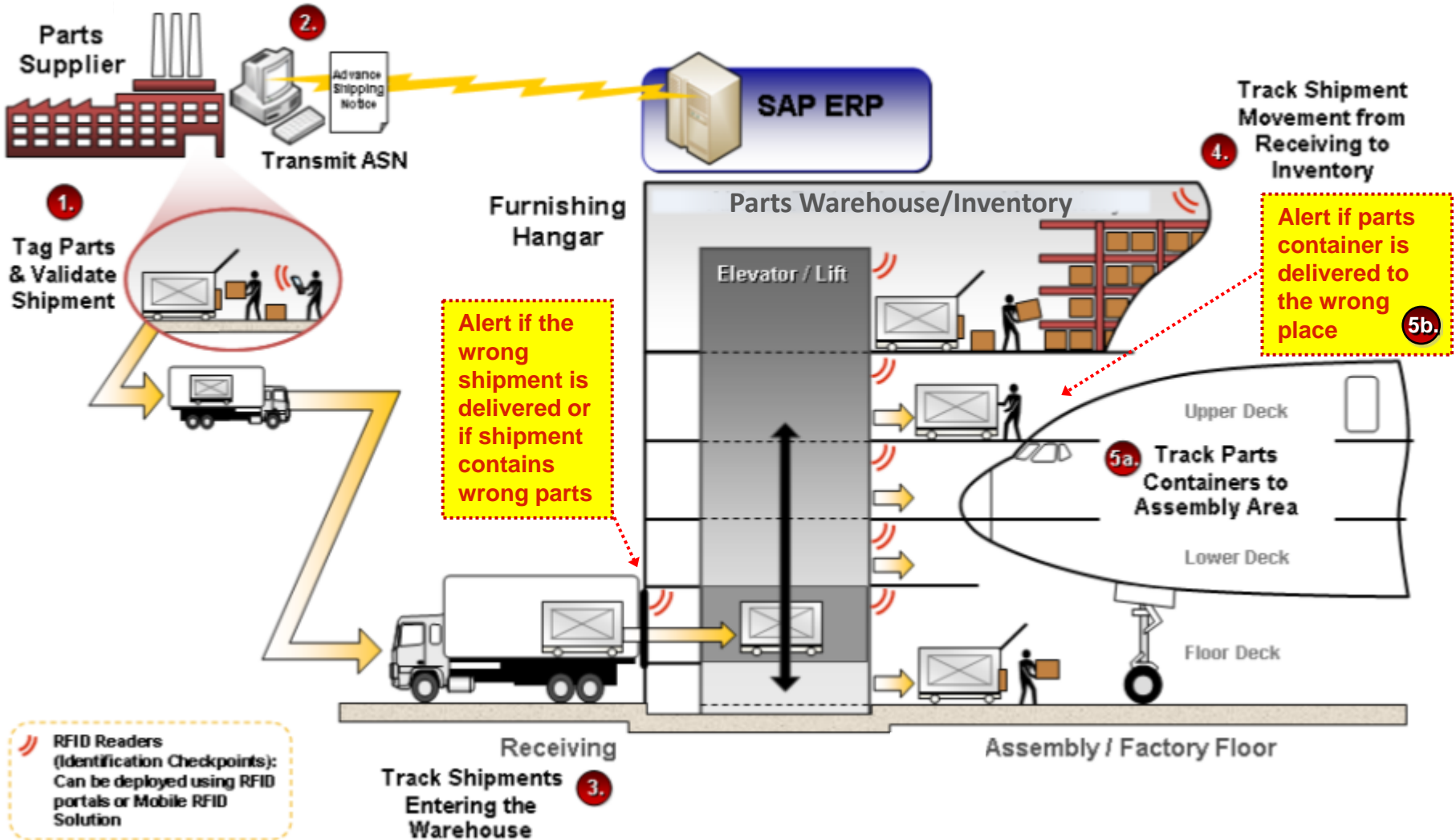




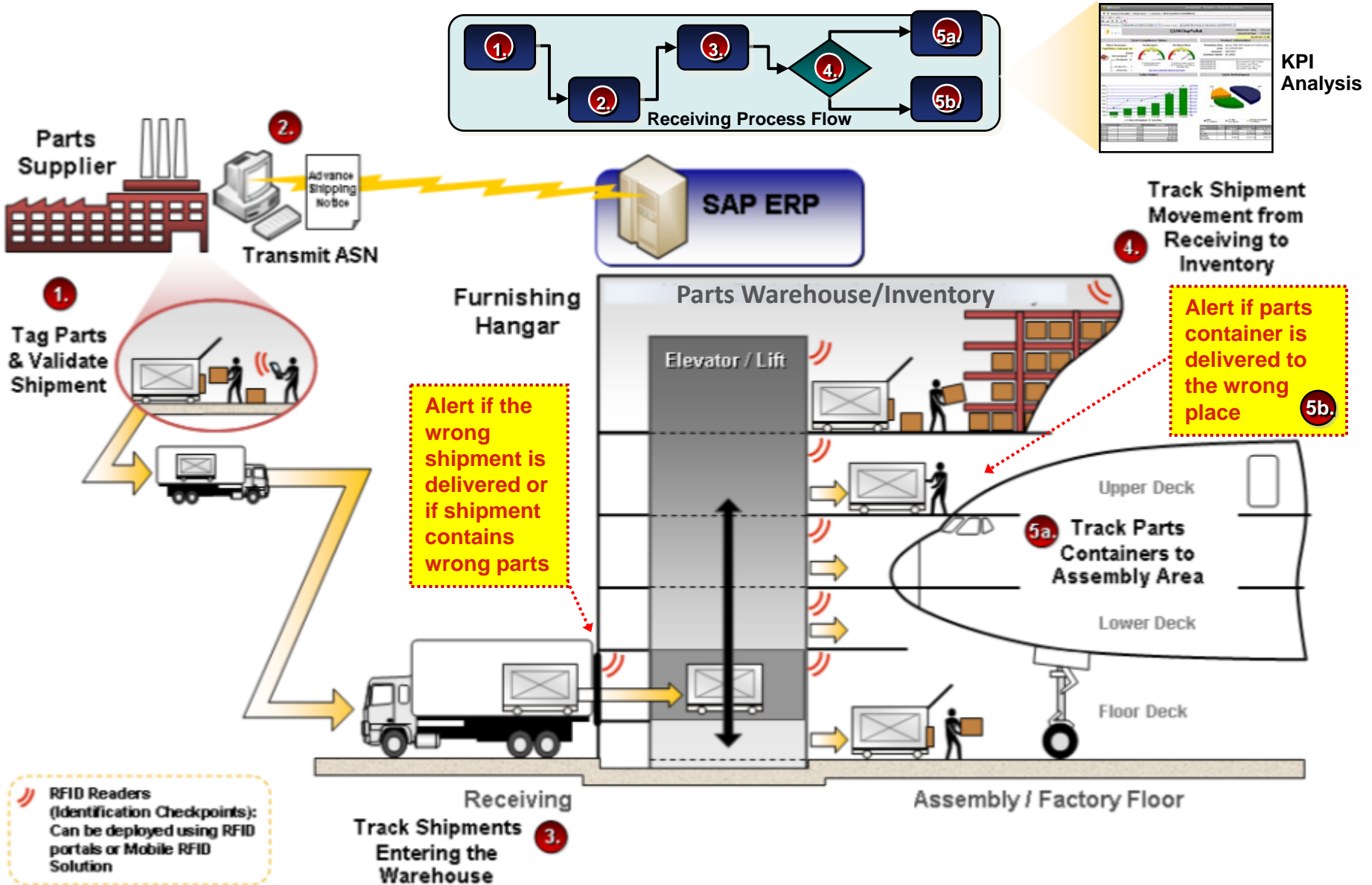
# An RFID-enabled A&D Process



# An RFID-enabled A&D Process



# An RFID-enabled A&D Process



# Real-time Visibility Packaged Solutions

Dan Ahearn, OATSystems

Stephen Cloughley, SAP

# Why Real-time Visibility? Why Packaged Solutions?



- Real-time Visibility
  - Enhance the value of SAP Applications to cut inventory, labor and operations costs
  - Discuss strategic issues and interdependencies that impact enterprise efficiencies
  - Enterprise workflows; integrated solution
- Packaged Solutions
  - Proven solutions at multiple customer sites
  - Rapid deployment
    - Out-of-the-box solutions for tool tracking, RTI tracking, Kanban, etc.
  - Enterprise scale
  - SAP-certified

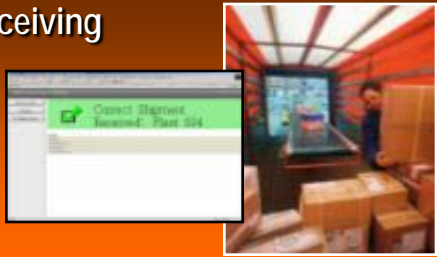
### Order Tracking



Alert!  
Order Y453-D7112  
Is NOT at  
Dock Door 15  
PLEASE REROUTE

The image shows a warehouse dock door with a yellow alert overlay. The alert text reads: 'Alert! Order Y453-D7112 Is NOT at Dock Door 15 PLEASE REROUTE'. The background shows a person standing near a dock door.

### Receiving



Correct Shipment  
Received: Part 304

The image shows a warehouse receiving area with a computer screen overlay. The screen displays 'Correct Shipment Received: Part 304'. The background shows a person standing near a computer monitor.

### Kanban Management Cycle Counting

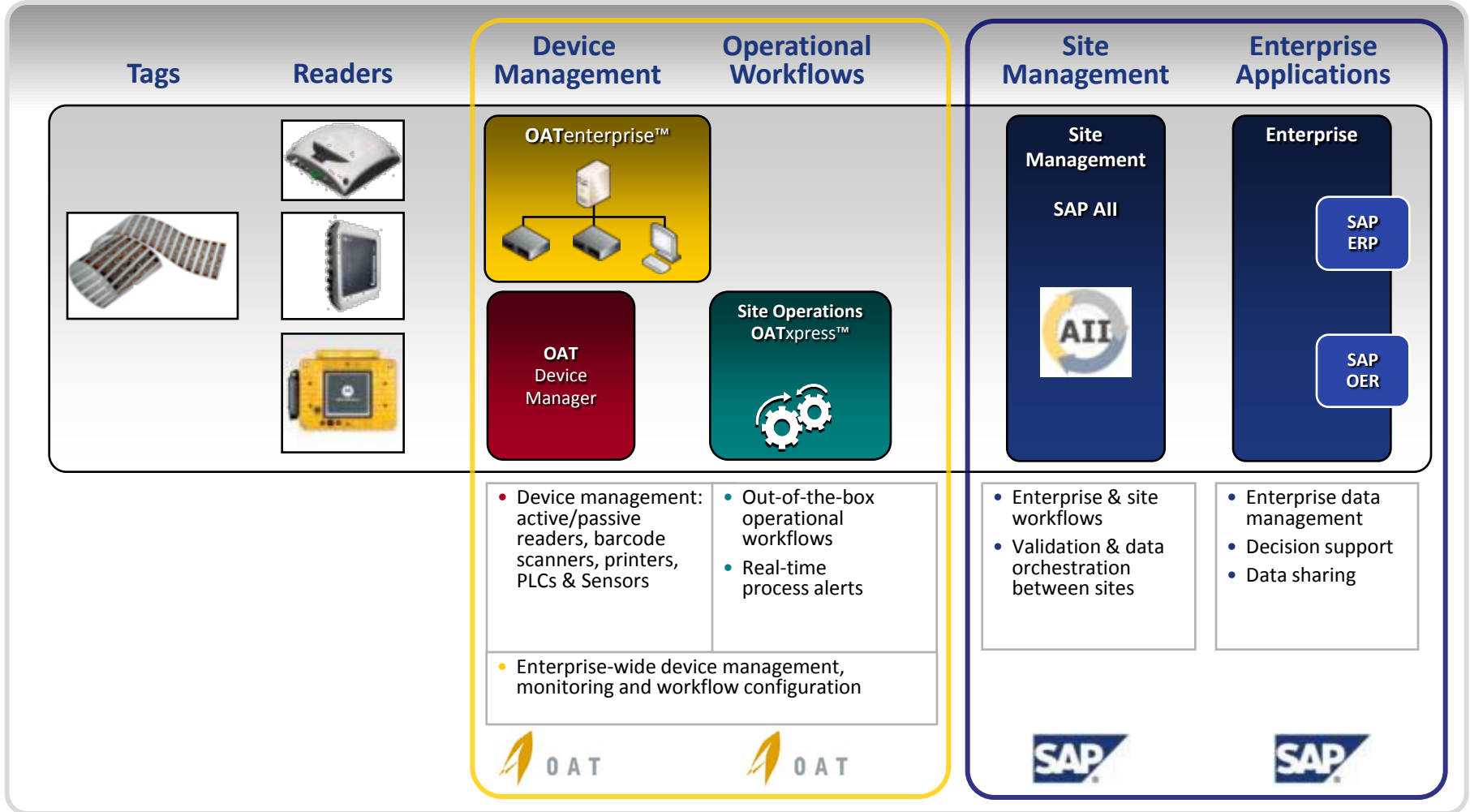


Alert! Minimum Stock  
Level Reached.  
Please Reorder

The image shows a handheld device displaying the number '11' with a yellow alert overlay. The alert text reads: 'Alert! Minimum Stock Level Reached. Please Reorder'. The background shows a person using the device.

### Audit & Inspection

The image shows two workers in blue uniforms inspecting a product in a warehouse setting.

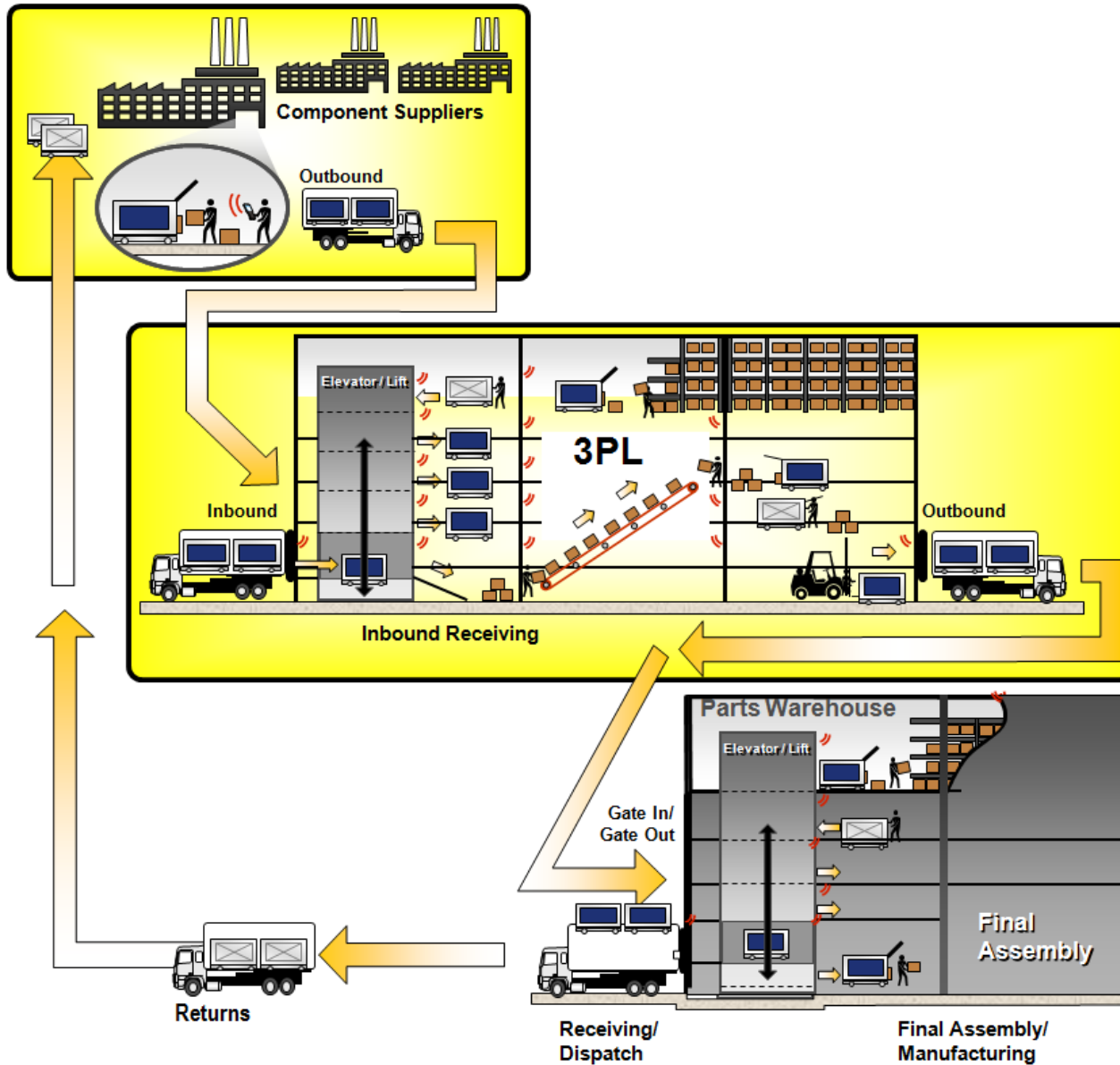


# Real-time Visibility: Real-World Scenarios

**Stephen Cloughley**

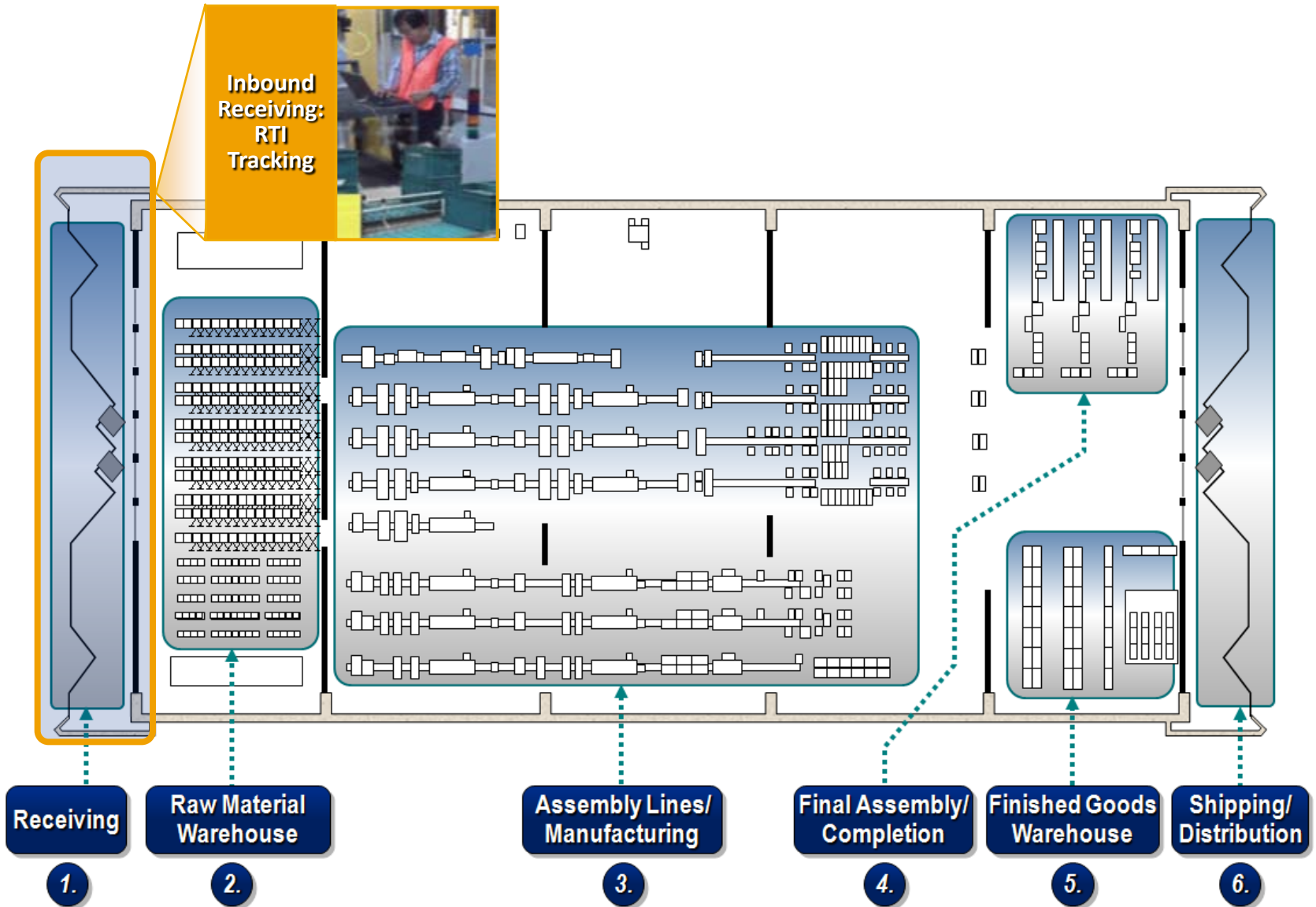
Senior Director  
SAP Labs LLC

# A & D Supply Chain

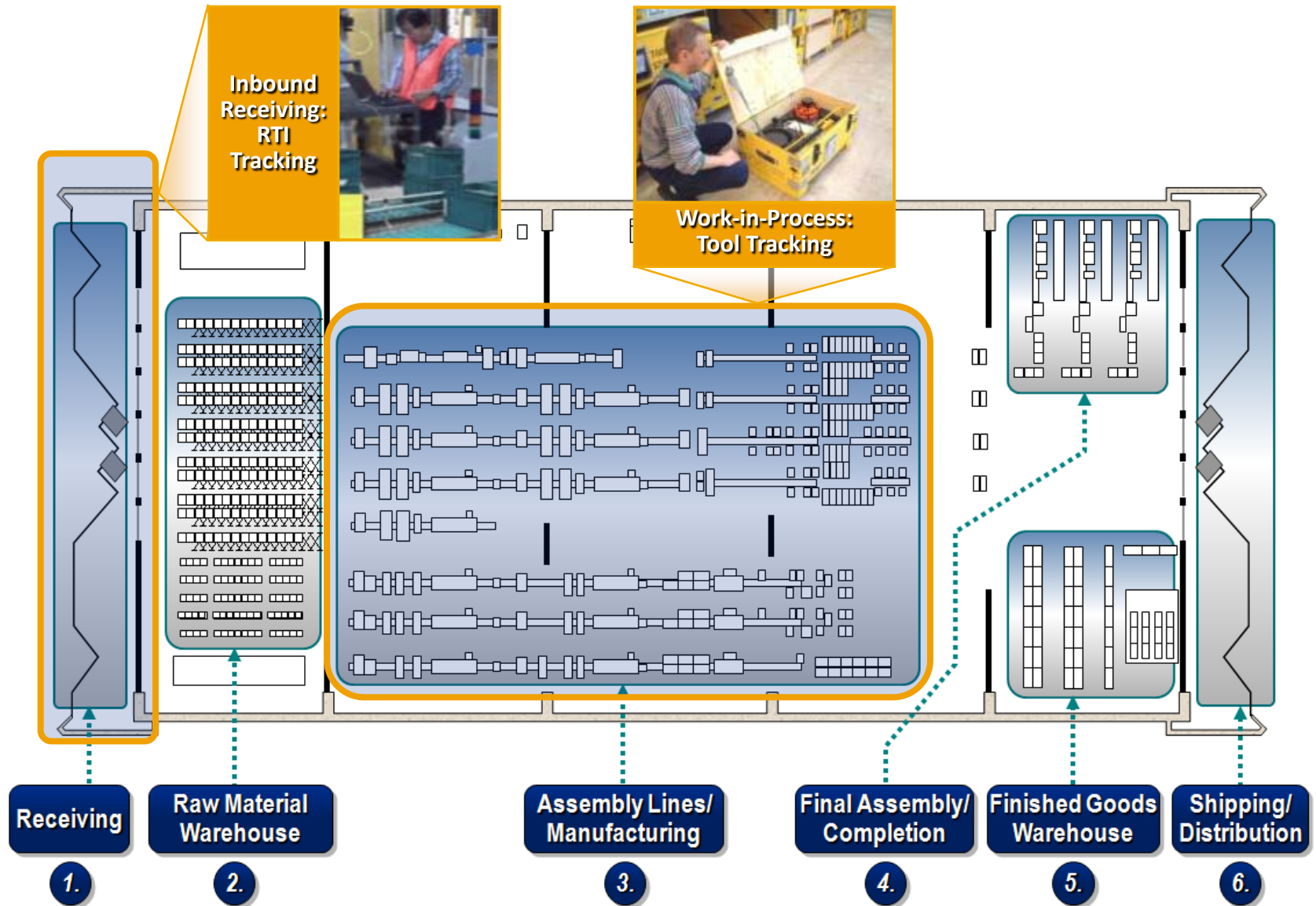




# A & D Manufacturing Plant



# A & D Manufacturing Plant

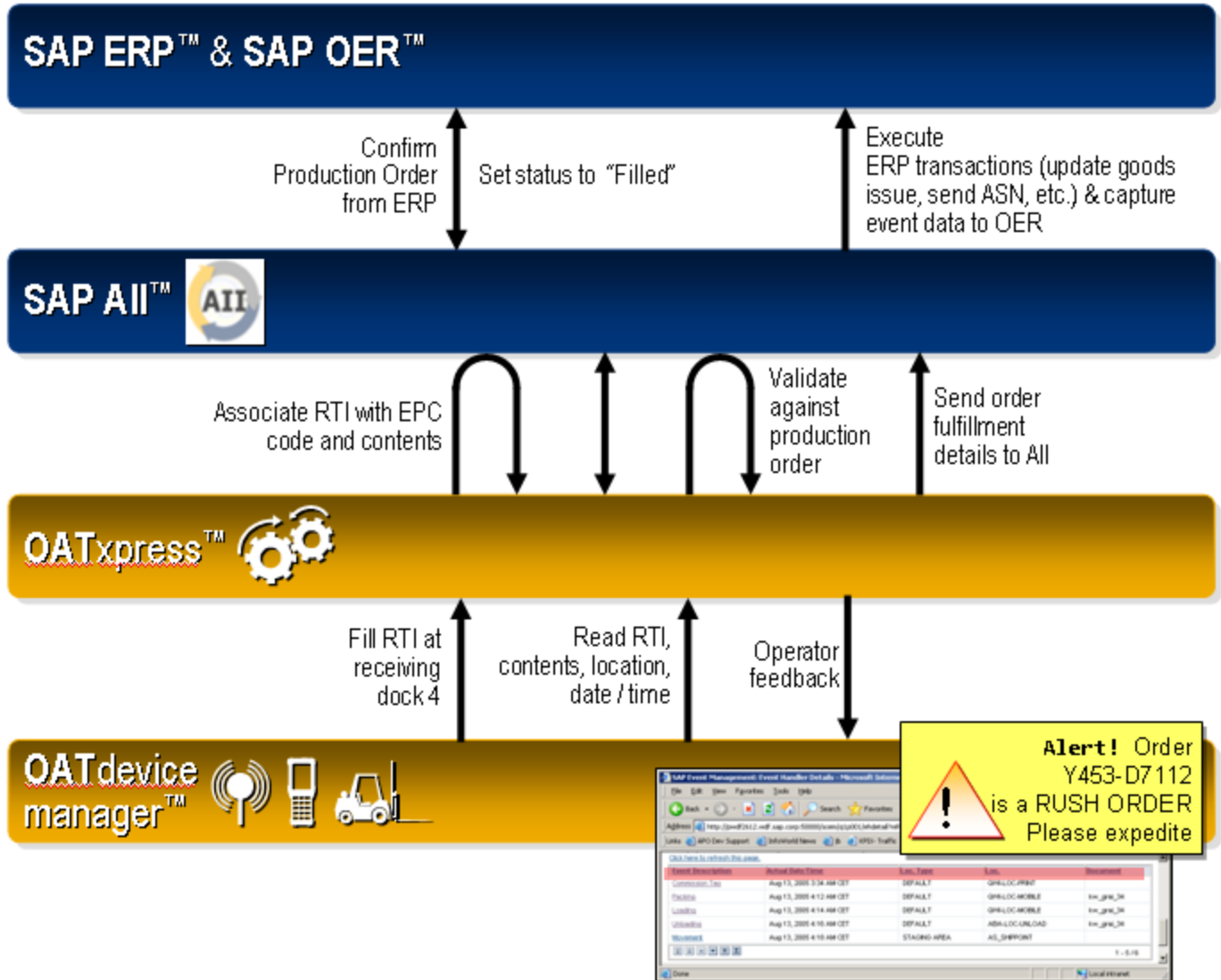


# Inbound Receiving: RTI Tracking Sample Process Flow



## Sample Process Flow

- Validating order & manifest details against physical containers and their contents



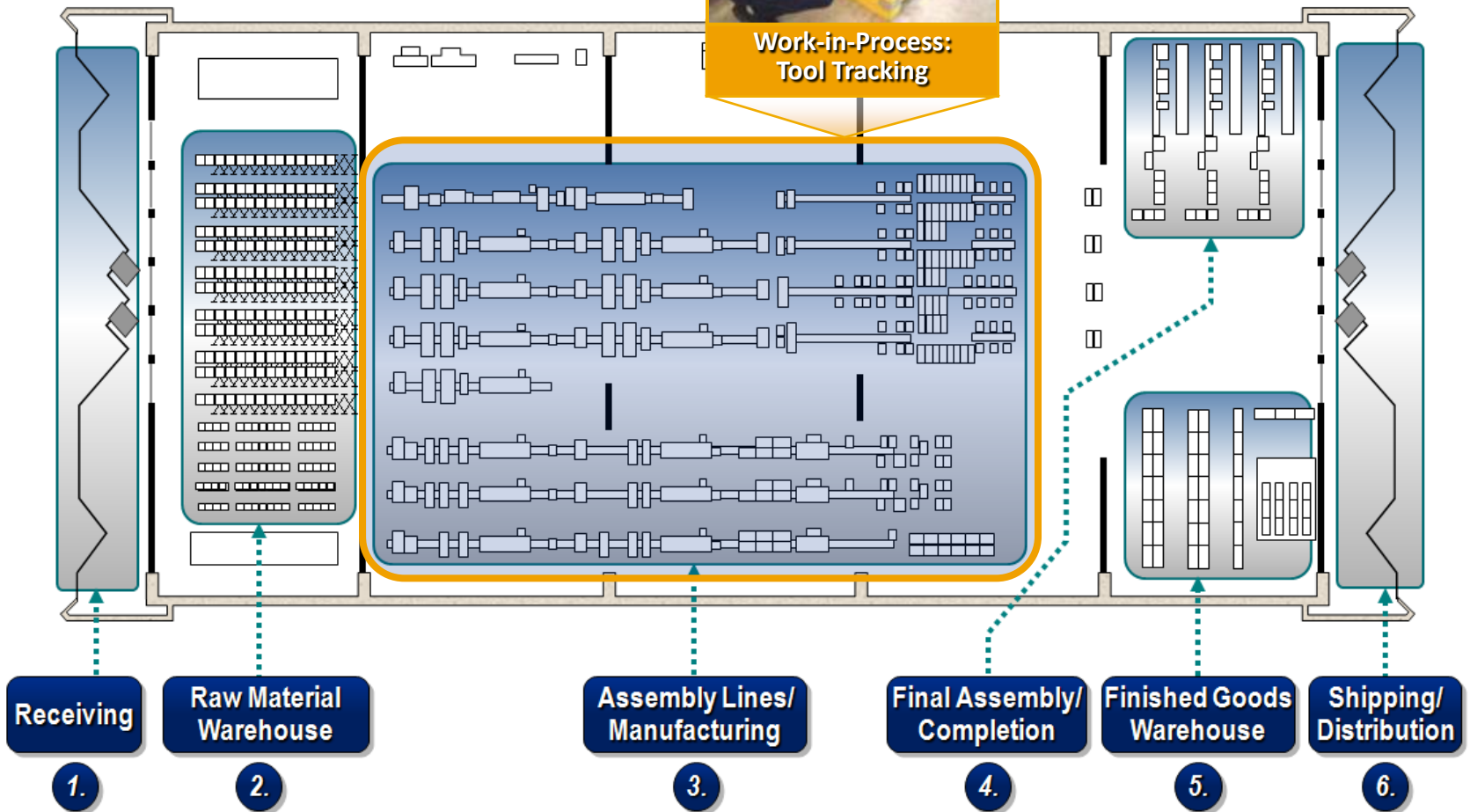
- **Reduce Discrepancy Handling Costs**
  - Proof of delivery process (RTI based)
  - RTI differences based on Serial Shipping Container Code (SSCC)
  - Additional information provided through Global Returnable Asset Identifier (GRAI) visibility
  
- **Improve Business Processes between trading partners**
  - Improved receiving process, does not require manual counting
  - Automatic RTI management, reducing administrative responsibilities
  - Improved billing processes
  
- **Improve Supply Chain Metrics**
  - Improve cycle time
  - Appropriate inventory levels
  - Reduction in out-of-stock
  
- **Reduce Costs**
  - Reduce Mis-shipments, Rework and SafetyStock
  - Reduce Container Replacement Cost and Spares
  - Reuse tags, leverage barcoding



# A & D Manufacturing Plant



Work-in-Process:  
Tool Tracking



# Tool Tracking: Sample Process Flow



**SAP ERP™ / SAP MES™ / SAP Service & Maintenance™ & SAP OER™**

Get tool/equipment serial # and calibration schedule from ERP /MES/ Service & Maintenance  
 Assign tool to operator/location for specific time period  
 Update tool maintenance schedule

**SAP AII™**

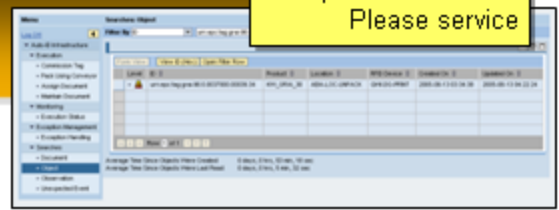
Get location details for tool store  
 Validate against inventory/calibration table  
 Send maintenance details to AII

**OATxpress™**

Receipt at tool store  
 Read tool, operator ID, location  
 Operator feedback

**OATdevice manager™**

**Alert!**  
 Tool #75622  
 Requires Calibration  
 Please service



## Sample: Process Flow

- Verifying Tool Location and Maintenance during Check-in – Check-out Process



## *Tag Located on Tools:*

- Tool identification/manufacturing data
- Quality data
- Lifecycle information

## *Tag Located on Tool Boxes:*

- Identification/manufacturing criteria
- Tool box and tool management information
- Transportation data



## *Information Stored on the Tag:*

Manufacturing date	Periodical check code
Last check	Last calibration date
Original certificate	Size and weight data
Original receipt number	Last receipt number

# Tool Tracking: Improvements Compared to Original Process

- Less (or no) paperwork
- Faster, easier, and more accurate data exchange
- Standard of documentation
- Automated goods receipt and shipping processes
- Loan / repair order written on tag
- Customs status available
- Improved Repair Management
- Quality assurance data



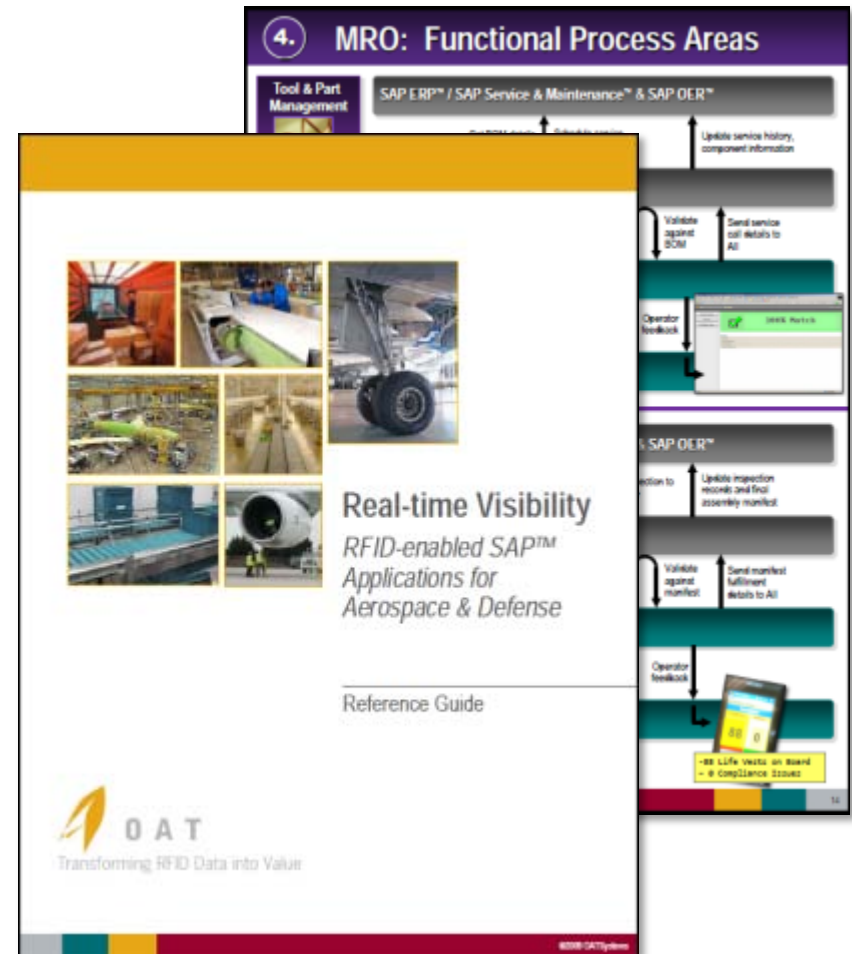


# Next Steps: How to Get Started

Dan Ahearn, OATSystems

Stephen Cloughley, SAP

- Evaluate Key Process Areas
  - Closed-loop
  - Labor-intensive
  - Customer facing
- Articulate Value
  - Labor savings
  - Reduced inventory
  - Shipping costs/logistics



# Real-time Visibility for SAP in Aerospace & Defense:

## *Question and Answer Session*

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