

SAP Academic Conference Americas

ERP Core: Innovation Starts Now
Armando Urias, ERP Solution Advisor, SAP
Month 23, 2012

The SAP logo, consisting of the letters 'SAP' in white on a blue background.The SAP University Alliances logo, featuring the letters 'SAP' in orange and 'University Alliances' in grey.

Innovations in ERP

The screenshot shows the Facebook interface for Justin Bieber's profile. At the top, the Facebook logo is on the left, and login fields for Email and Password are on the right, with a 'Log In' button. Below the login fields are links for 'Keep me logged in' and 'Forgot your password?'. A green 'Sign Up' button is on the left, followed by the text 'Facebook helps you connect and share with the people in your life.' The profile header for Justin Bieber includes a 'Like' button and a 'Create a Page' button. The profile picture is a photo of Justin Bieber. Below the profile picture is a navigation menu with options like 'Wall', 'Info', 'JB SOMEDAY', 'Box Set: Under The Mistlet...', 'Official', 'Music Videos', 'Newsletter Sign-Up', 'Events', 'Store', 'Notes', 'Links', 'Photos', 'Videos', 'My Stuff', 'iCal to Event', and 'UK Treasure Hunt'. The main content area is titled 'Justin Bieber' and 'Musician/Band'. It features a row of five small images. Below this is the 'Basic Information' section, which lists: Genre (Pop R&B), Hometown (Stratford, ON), Record Label (Island DefJam/ RBMG/ SchoolBoy), and About (websites: www.BIEBERFEVER.com, www.Justinbiebermusic.com, www.Justinbieberneversaynever.com, and Twitter @JustinBieber). The 'Biography' section contains two paragraphs of text. The 'General Manager' is Scooter Braun. The 'Influences' are Michael Jackson, Stevie Wonder, and Usher. The 'Website' section lists several URLs. A sidebar on the right asks 'Want to like or comment on this page?' and provides a 'Sign Up' button and a 'Log in' link.

facebook

Email Password **Log In**

Keep me logged in [Forgot your password?](#)

Sign Up Facebook helps you connect and share with the people in your life.

Justin Bieber

Musician/Band

Basic Information

Genre Pop R&B
Hometown Stratford, ON
Record Label Island DefJam/ RBMG/ SchoolBoy
About www.BIEBERFEVER.com
www.Justinbiebermusic.com
www.Justinbieberneversaynever.com

Twitter @JustinBieber

Biography

An old soul is the last thing you would expect to find inside Justin Bieber. But all it takes is one listen to the 15 year-old soul-singing phenomenon to realize that he is light years ahead of his manufactured pop peers.

After posting dozens of homemade videos on YouTube in 2007, where the multi-talented Bieber put his impeccable spin on songs from artists like Usher, Ne-Yo and Stevie Wonder, ...[See More](#)

General Manager Scooter Braun

Influences Michael Jackson, Stevie Wonder, Usher

Website <http://www.BIEBERFEVER.com>
<http://www.JUSTINBIEBERMUSIC.com>
<http://www.twitter.com/justinbieber>
<http://www.youtube.com/justinbieber>
<http://www.youtube.com/kidrauhl>
<http://www.facebook.com/justinbieber>
<http://www.myspace.com/justinbieber>
<http://like.com/artist/Justin+Bieber>

Want to like or comment on this page?

To interact with Justin Bieber you need to sign up for Facebook first.

Sign Up

It's free and anyone can join. Already a member? [Log in.](#)

Head of Asset Management Questions What Does This Mean for Your Business?



Head of Asset Management Issues

- How do I maximize asset uptime?
- How do I make sure our assets are up and running whenever we need them?
- How do I improve the financial return on our assets?
- How do I reduce request to delivery cycle time for repair services and control maintenance costs?
- How do I increase the 'wrench time' of our crafts people?

How do I achieve High-Performing Assets delivering strong asset performance in demanding times?

OEE %



Asset Utilization %



Unplanned Downtime %



Wrench Time %



Who Has the Data?



“When you two have finished arguing your opinions, I actually have data!”

SAP University
Alliances

Agenda

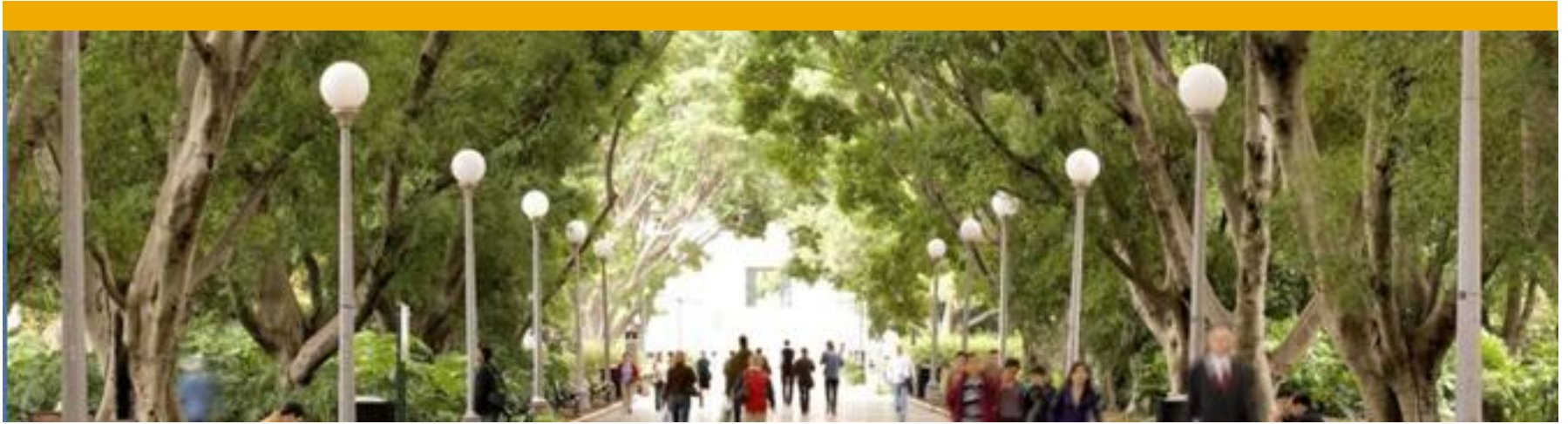
Business Improvement Platform

Achieving ERP Operational Excellence

- Immediate Visibility
- Asset Integration
- User Adoption

Questions



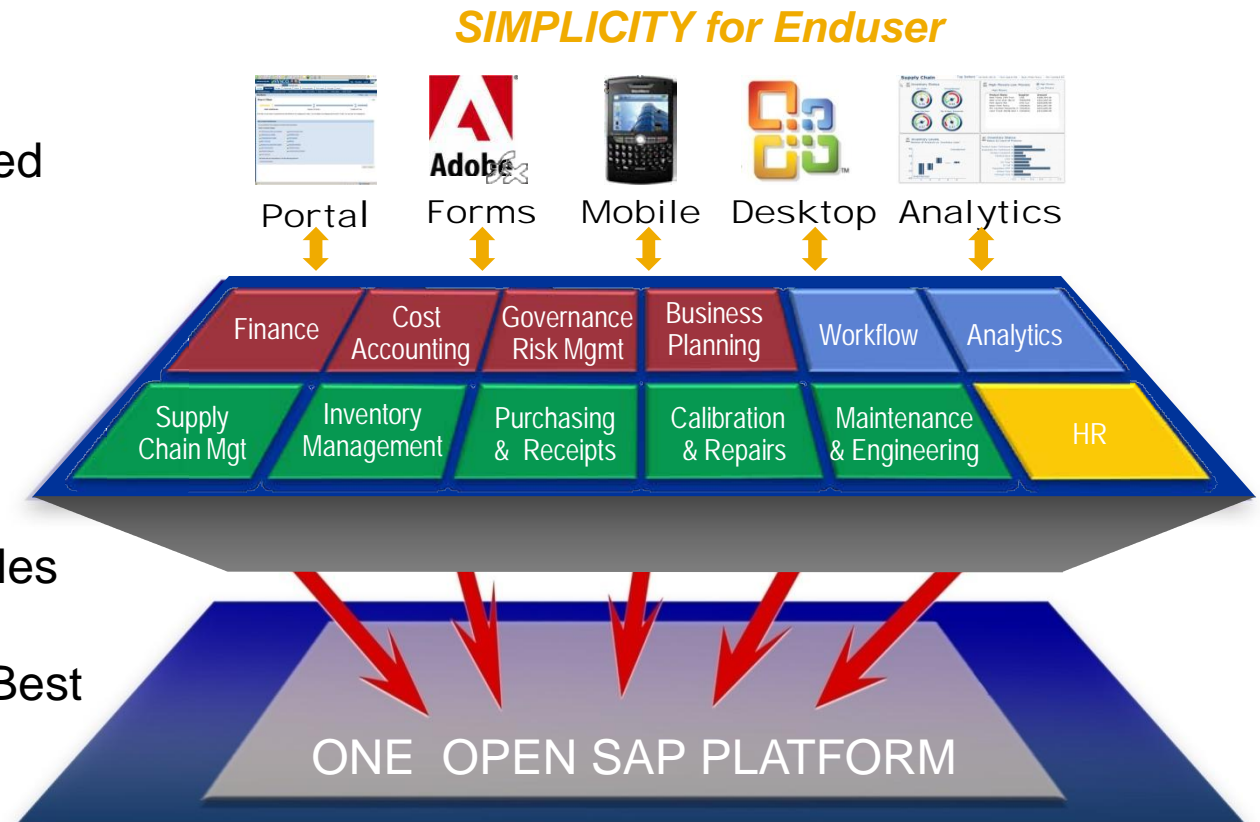


A Platform for Innovation



Business Process Improvement Platform

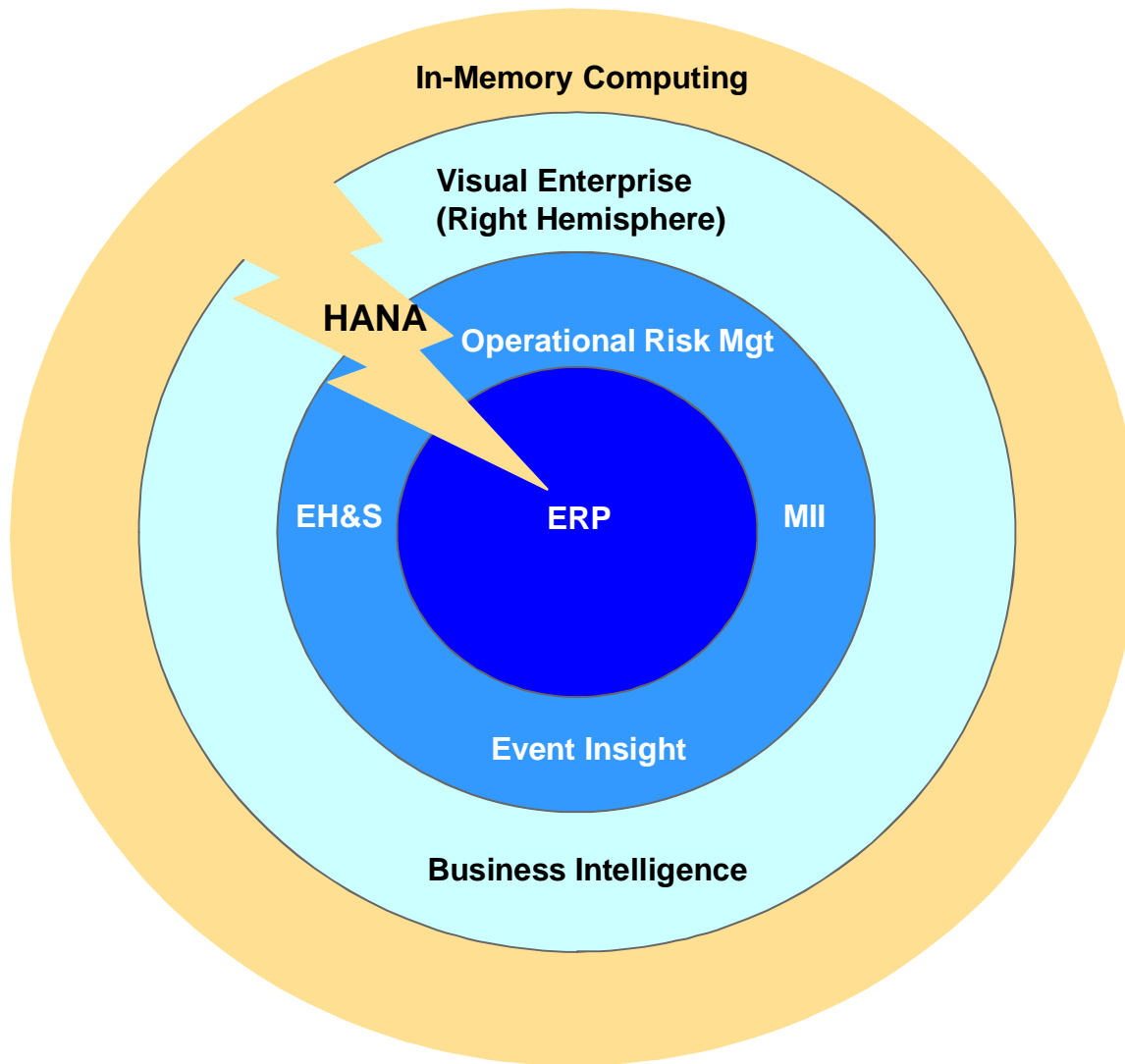
- End-to-End, Fully Integrated Business Processes
- Out-of-Box, Real-Time
- Flexible & Open
- Configurable Business Rules
- Based on Airline Industry Best Practices



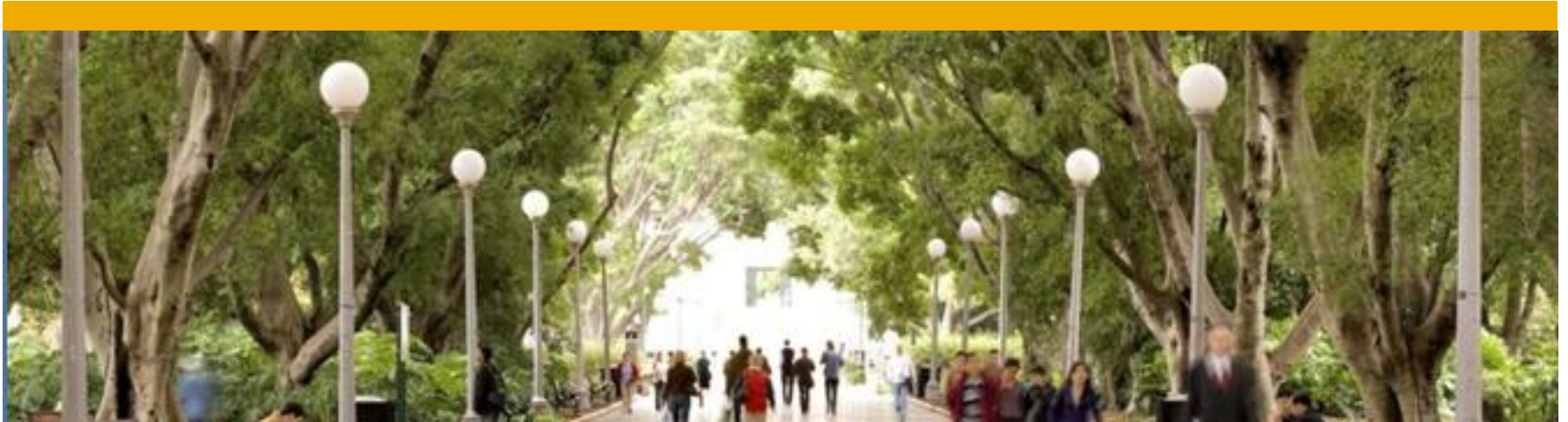
- 1 Source of Truth
- 1 Common Set of Data
- 1 Integrated System

SAP University Alliances

Innovations in Operations



- 1** ERP are the master records to ensure speed & accuracy of operational activities
- 2** Real time insight to drive precision in execution is provided by ORM, MII, Event Insight, and EH&S
- 3** Real time, interactive visibility is achieved through Visual Enterprise, Mobility, and BI
- 4** In-Memory Computing through HANA yields unprecedented processing speeds to support Real-Time analysis at all levels



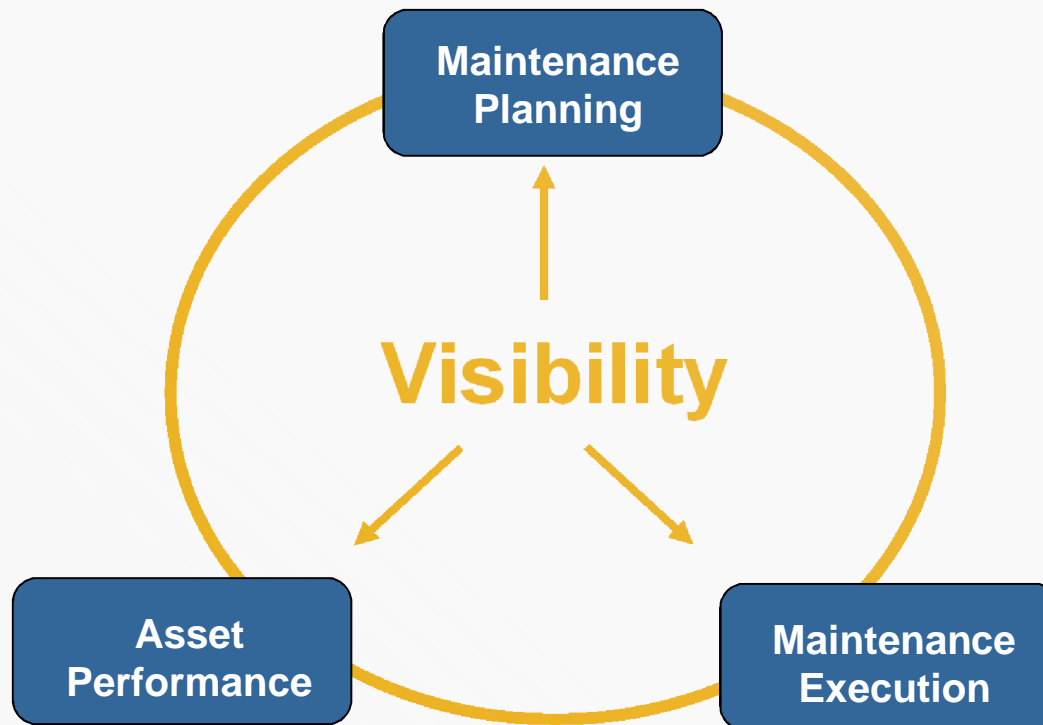
A Platform for Innovation

Operational Excellence





Powered by HANA



The Perfect Plant

Maintenance Planning

Adjustments are not driven primarily by unplanned events in manufacturing but rather by demand shifts and other factors. Manufacturing is able to manage these changes more rapidly and reliably

Maintenance Execution

All events are proactively monitored with automated event handling that is tightly coupled with the enterprise

Asset Performance

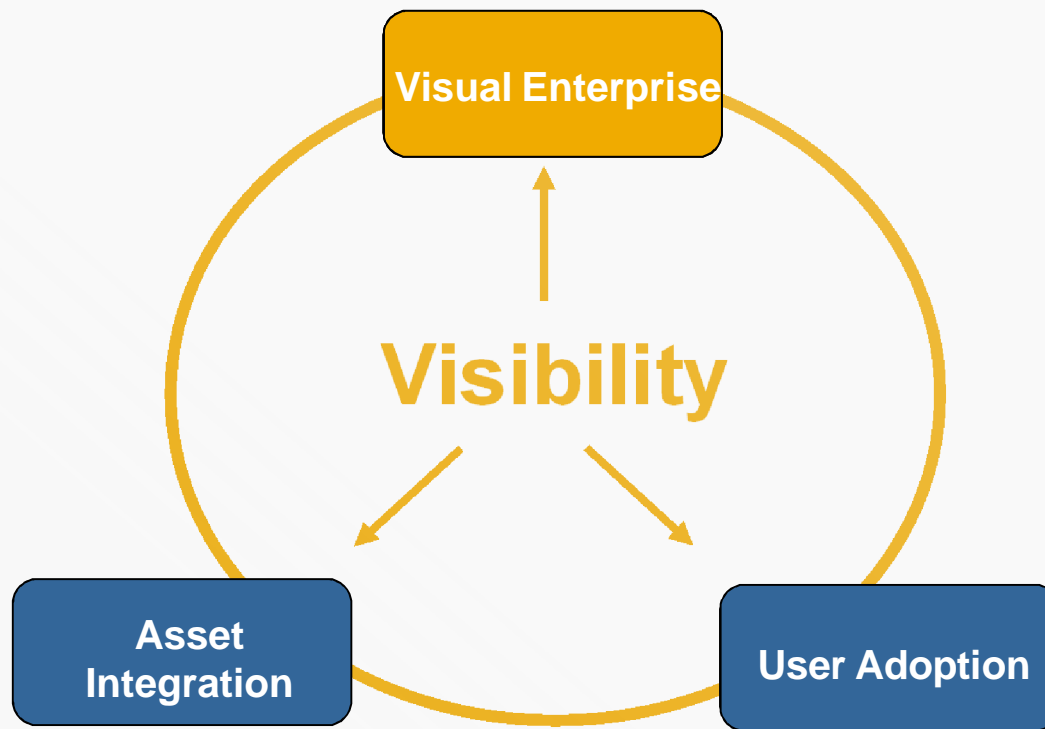
and Utilization are monitored and events are triggered automatically. EAM processes are optimized and all asset content is available in a single source. EAM process are tightly linked to operations

SAP Value

Gain Visibility across Planning, Execution, Asset Management



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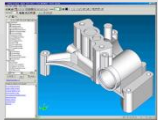
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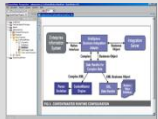
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Why Visual Enterprise Solutions Are Needed

EXISTING SYSTEMS AND DATA



CAD Data
(SolidWorks, CATIA,
UG, Pro/E...)

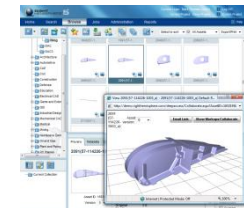
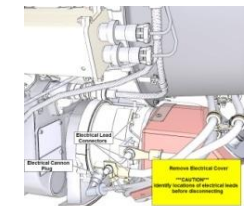
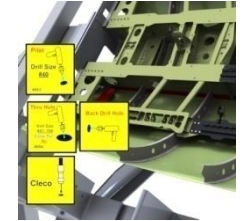
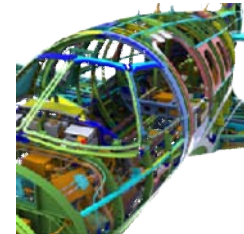
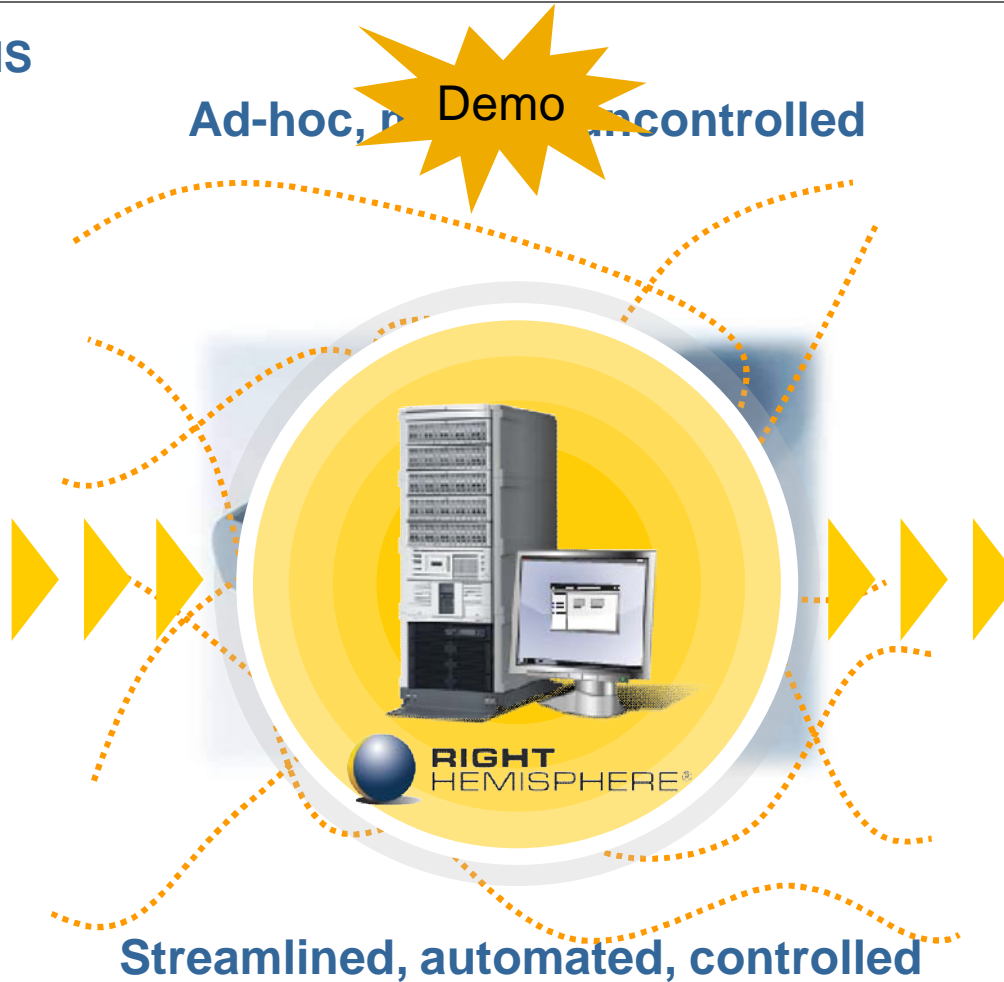


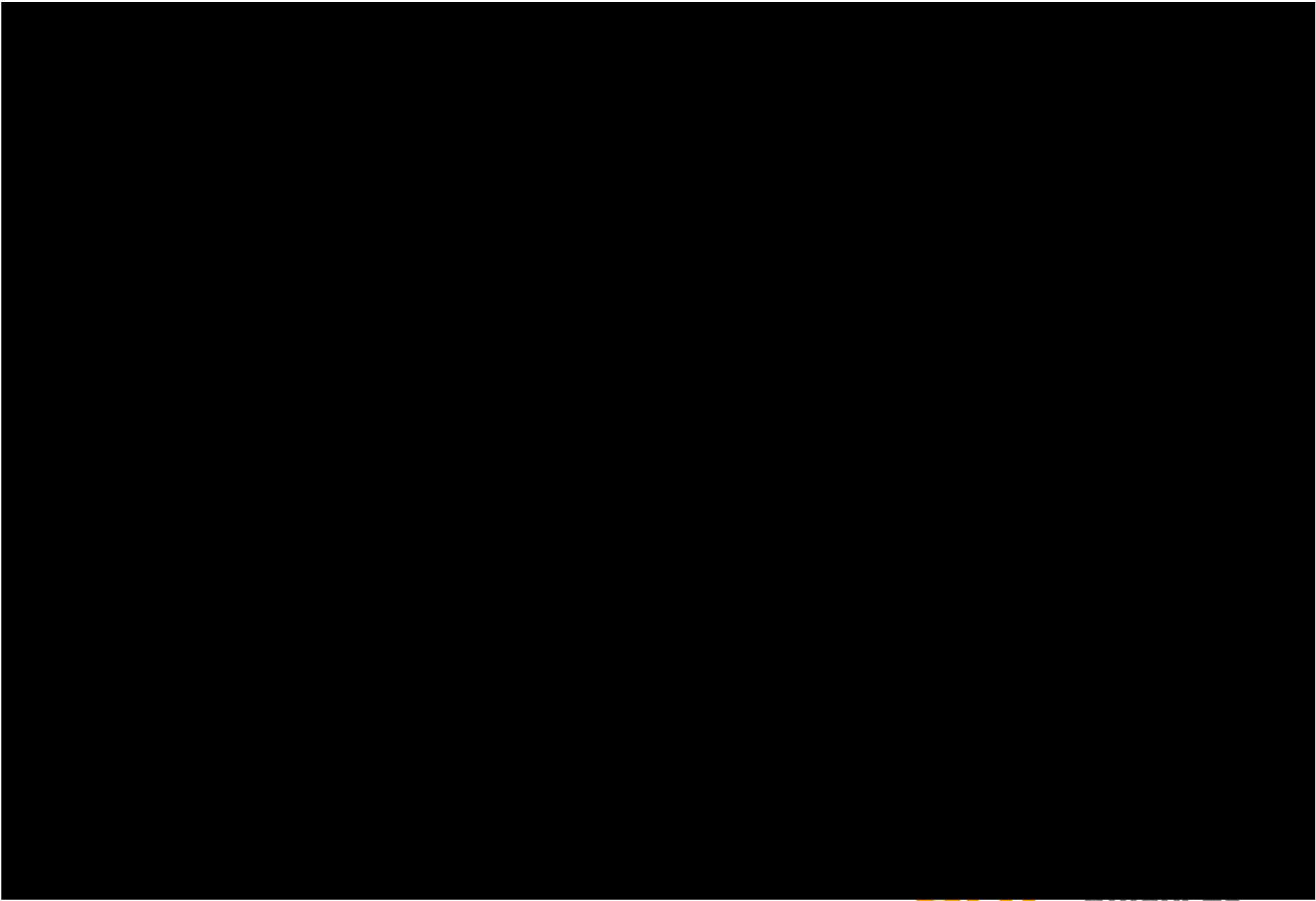
Product Metadata
(WindChill,
ENOVIA, Tce,
SAP...)



Enterprise Data

Ad-hoc, uncontrolled Demo





ERP Process Visualization

Change Notification: 10002038

Change Notification: 10002038

Notification 10002038 Notification type M2, Malfunction report Technical Object P-1000-N013 Priority Very high System Status NOPR

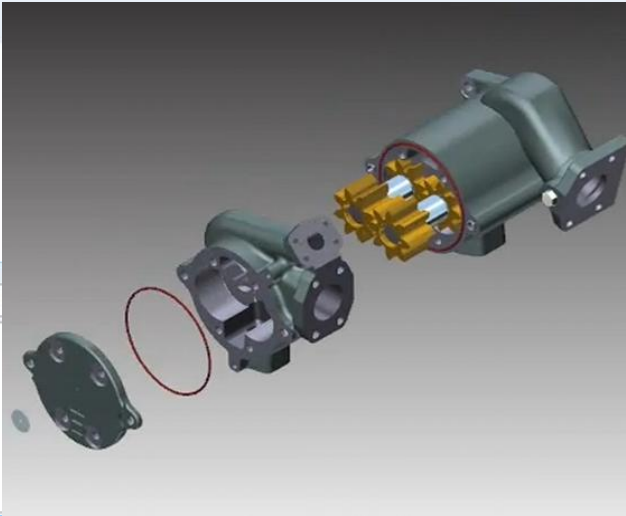
Save Close Read Only Check Entries Status Information Set System Status Additional Functions You can also

General Data Location Data Organization Data Malfunction Data Task Data Documents

Pump Pressure Alert !!!!!

New Additional Text: Dismantle instructions per 3-D model

Step List	Step Name and Description
Step 4	8 Service Operation 11290877 GEAR REPLACEMENT
Step 5	1) Reassemble Front Case Unit to Hydraulic Pump.
Step 6	2) Reassemble Seal Ring to Front Case Unit.
Step 7	3) Reassemble front Cover Plate.
Step 8	4) Make sure all washer are on appropriate bolts before reassembly.
Step 9	4) Reassemble 6 10 IN X 1/2 IN Bolts and 14 Washers to secure fianl assembly.



Add to Order

General Data

Description: PumpPressure Alert !!!!!

Description: Replace rear landing gear

Required Start Date/Time: 08.12.2011 12:51:33

Required End Date/Time: 09.12.2011 12:51:33

Technical Object: P-1000-N013 Port Landing Gear Rr

Technical Object Type: Equipment

Material:

Serial Number:

Assembly:

Task List:

Order: 819441 [Delete Order Assignment](#)

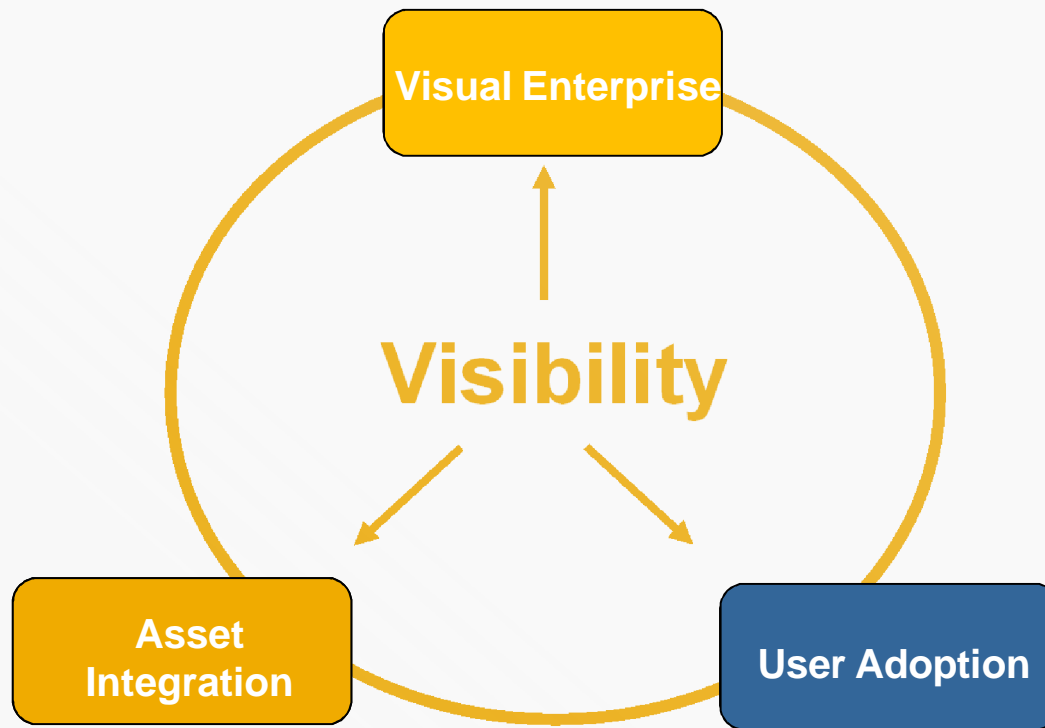
[Visualize](#)

SAP Value

Gain Visibility across Planning, Execution, Asset Management



Powered by HANA



The Perfect Plant

Maintenance Planning

Adjustments are not driven primarily by unplanned events in manufacturing but rather by demand shifts and other factors. Manufacturing is able to manage these changes more rapidly and reliably

Maintenance Execution

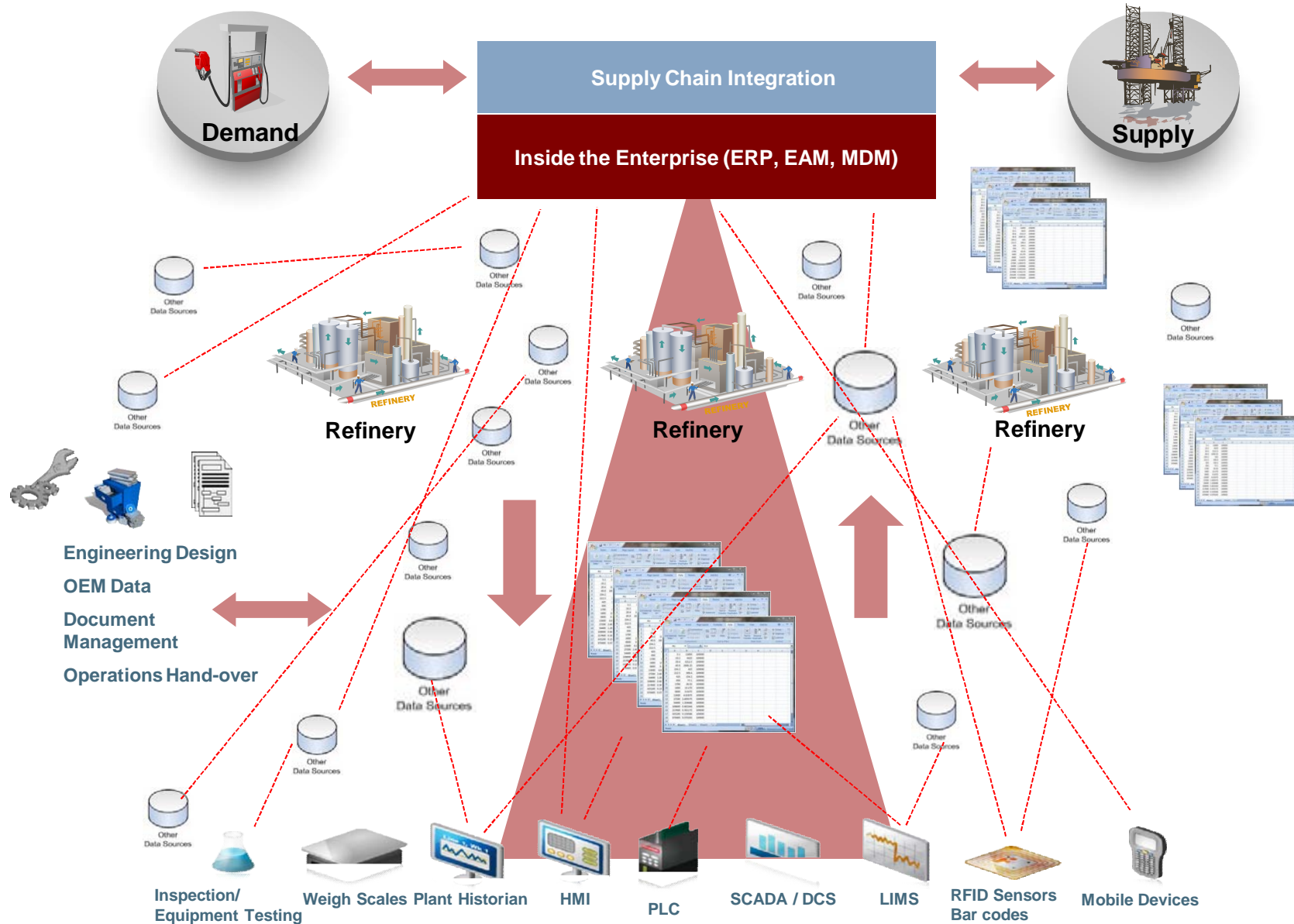
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Asset Performance

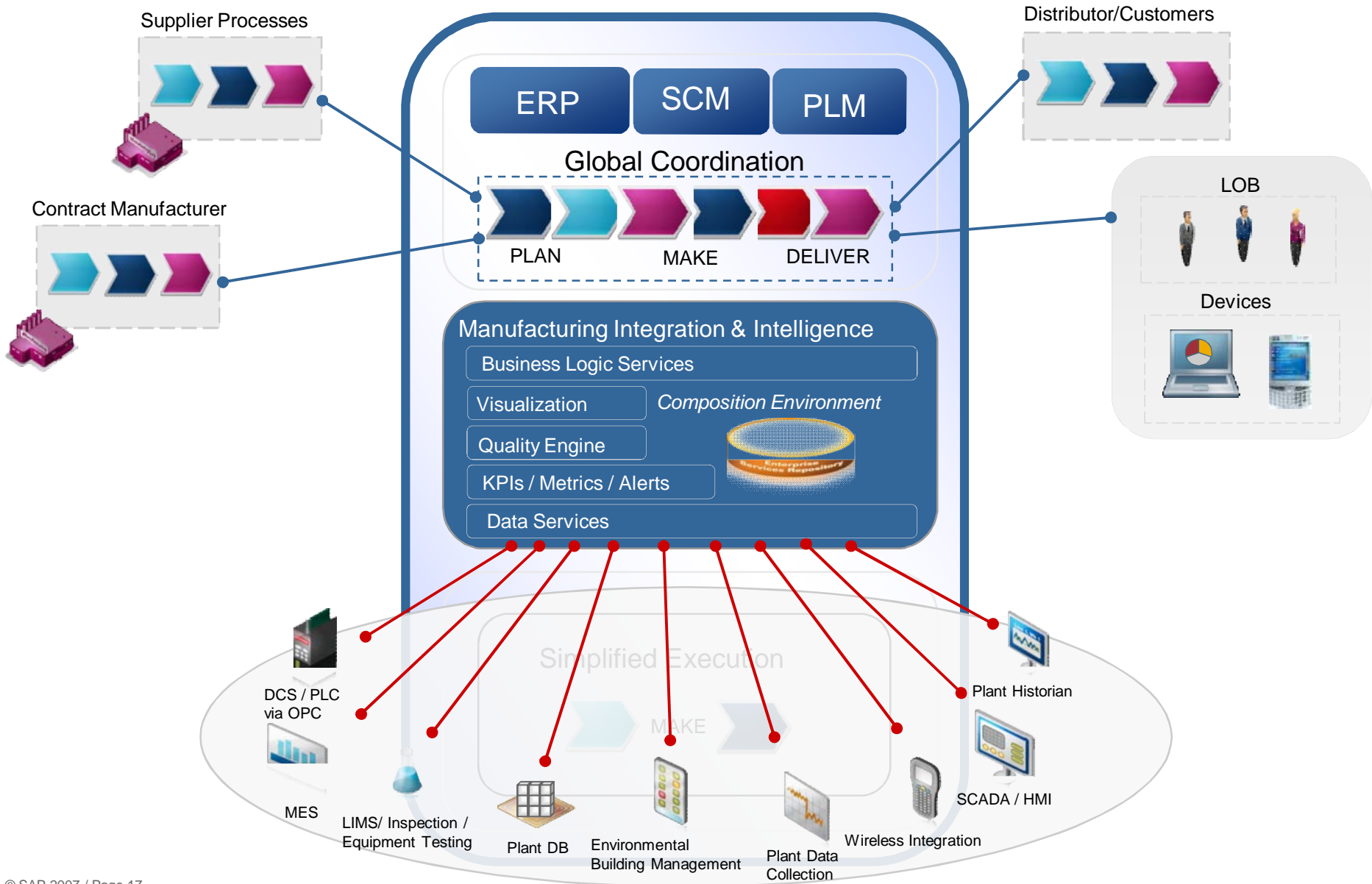
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Operational Excellence

The Missing Links - Almost-in-time Systems

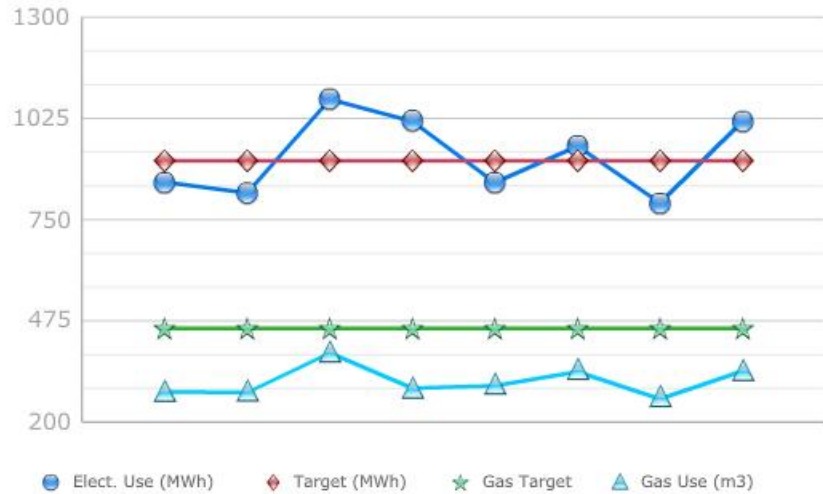


SAP Integration Platform Delivers Information and Process Integration

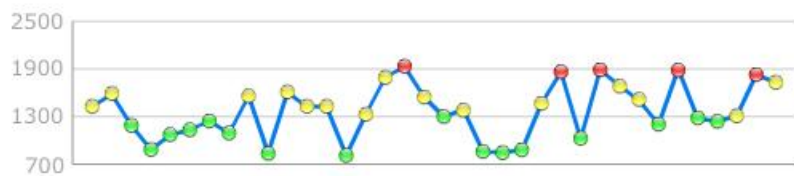


Condition Monitoring Integration (AMS, Thermography, Acoustical, IR, Vibration)

Energy Usage KPI's



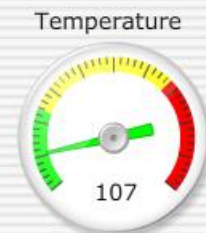
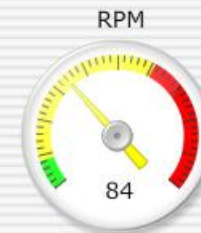
Pressure Readings



	MTBF (Days)	MTRR (Hrs)	Maint. Cost (YTD)	En
Valve Unit	76	3	\$750	
Pump Unit 1	69	13	\$3,250	
Pump Unit 2	99	10	\$2,500	

List of Assets

- Valve Unit
- Pump Unit 1
- Pump Unit 2
- Electrical Meter



10004174

Pressure Gage



Vibration (D/V/A)



Pump Operating Hours (10122)

170

Create Safety Alert

1400

Work Order No.

Submit Op. Hours



SAP MII Adapter

20

ERP Innovations: Immediate Time Visualization



Condition Monitoring Integration and Visualization DL3



List of Assets

Valve Unit	Edit Equipment Record
Pump Unit 1	Create Immediate WO
Pump Unit 2	Create Notification
Electrical Motor	Enter Measurement Doc

Pressure Readings

<p>Pressure Simulator</p> <p>P-3000-N001</p> <p>Work Order No.</p> <input type="text"/>	<p>Pressure Gage</p> <p style="text-align: center; background-color: yellow;">1400</p> <p style="text-align: center; border: 1px solid gray; padding: 2px;">Safety Alert</p>
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SAP MII Adapter

60

Armando Urias, 2012

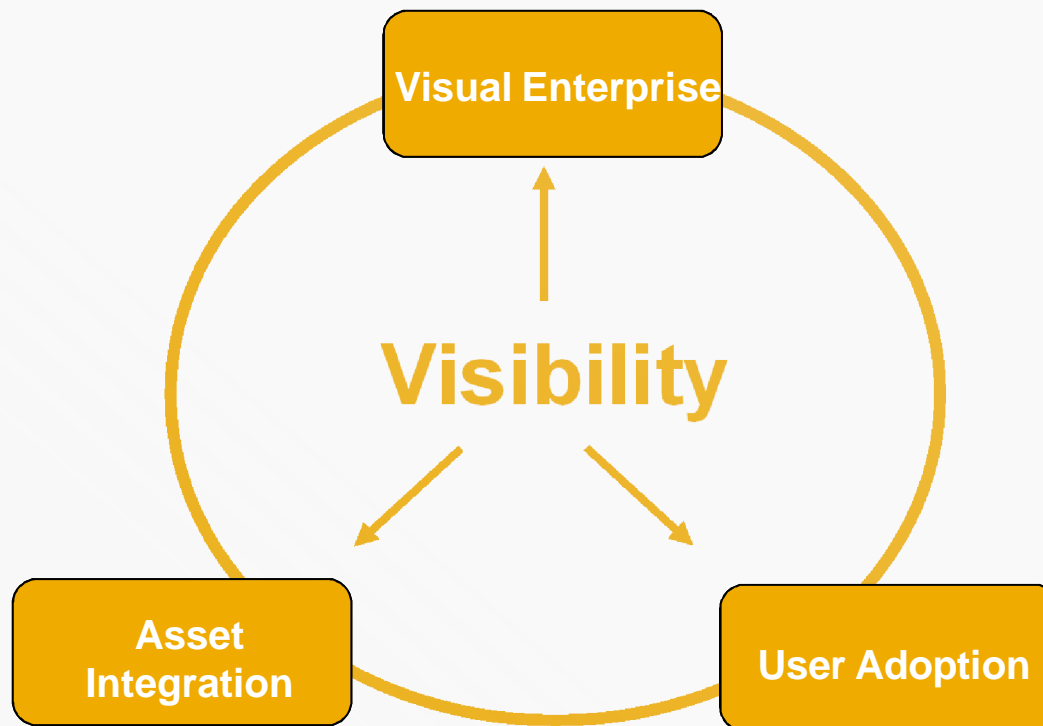
<p>RPM</p> <p>127</p>	<p>Temperature</p> <p>364</p>
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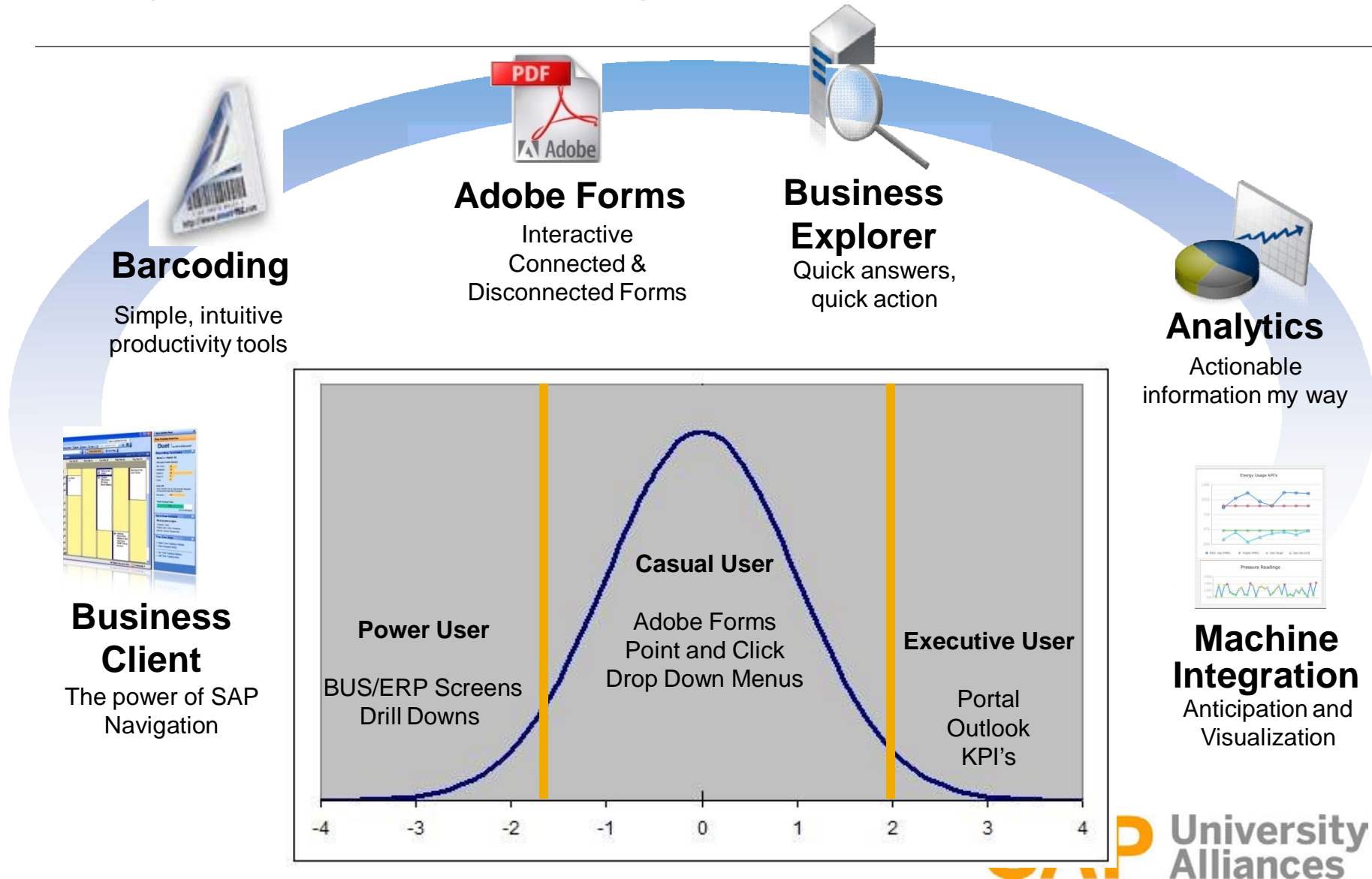
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SAP Simplicity:

The Right User Interface for the Right Users

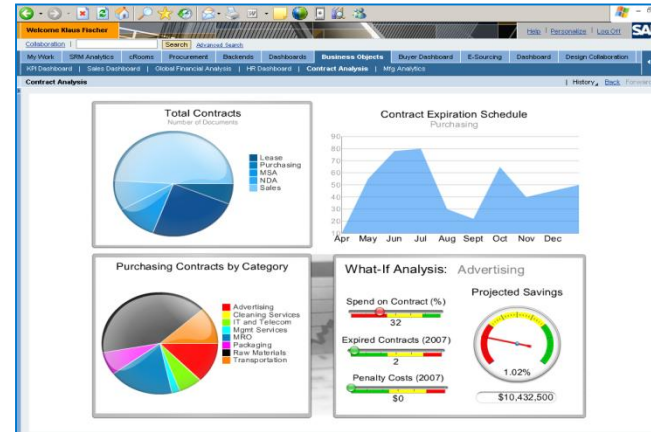


NEW SAP

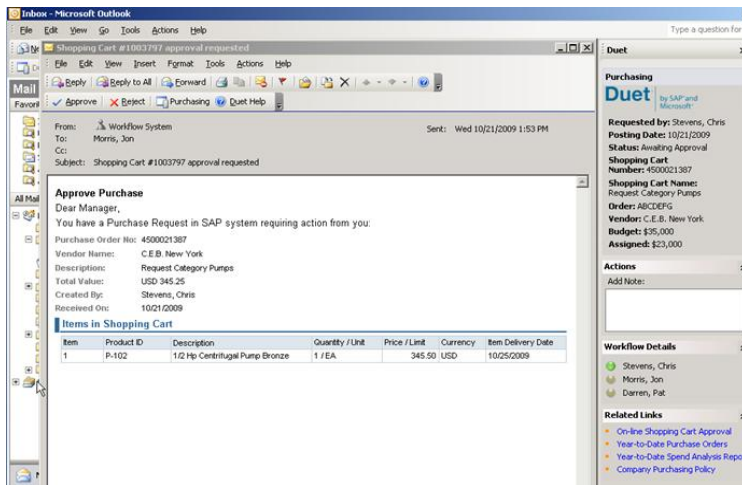
Kiosk & Image based



Analytics based



Email Integration



Mobile / RF based




Enabling Operational Excellence - Mobility

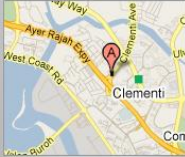
iPad, iPhone, Blackberry, ...

SAP
MOBILE INSPECTOR


Within 5 miles



Within 10 miles



Within 15 miles




Work Order

Number: **7870**
 Time/Date Dispatched: **09/03/2011**
 Priority: **High**

Transformer caught fire and requires immediate inspection

Transformer T7722
Asset No.: 983011



Work Order History
Details

SAP
MOBILE INSPECTOR

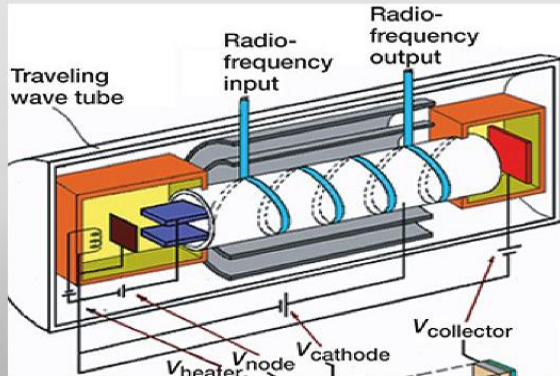
Back
Details

Asset No.: **983011** In Service Date: **01/02/2006**

Service History

Date	Maintenance Performed	Technician
09/03/2011	Transformer disconnected	Manny Rodriguez
11/13/2007	Wave Tube replaced	John Smith
09/21/2007	Coolant replacement	John Morris

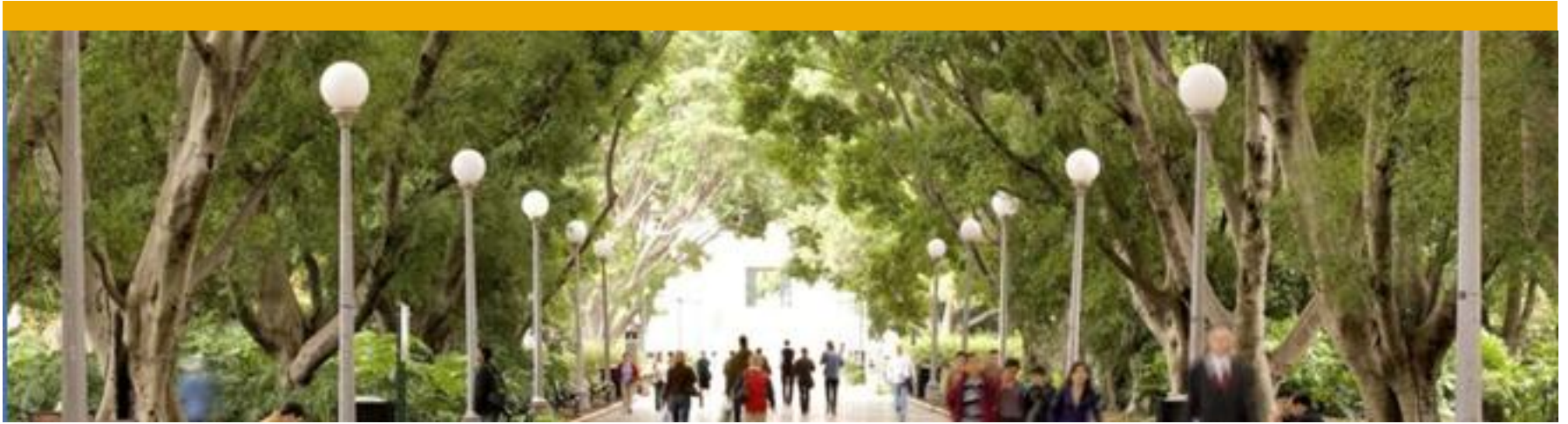
Transformer T7722 Asset No.: 983011



Create Inspection Report

Enabling Operational Excellence – Visual Enterprise



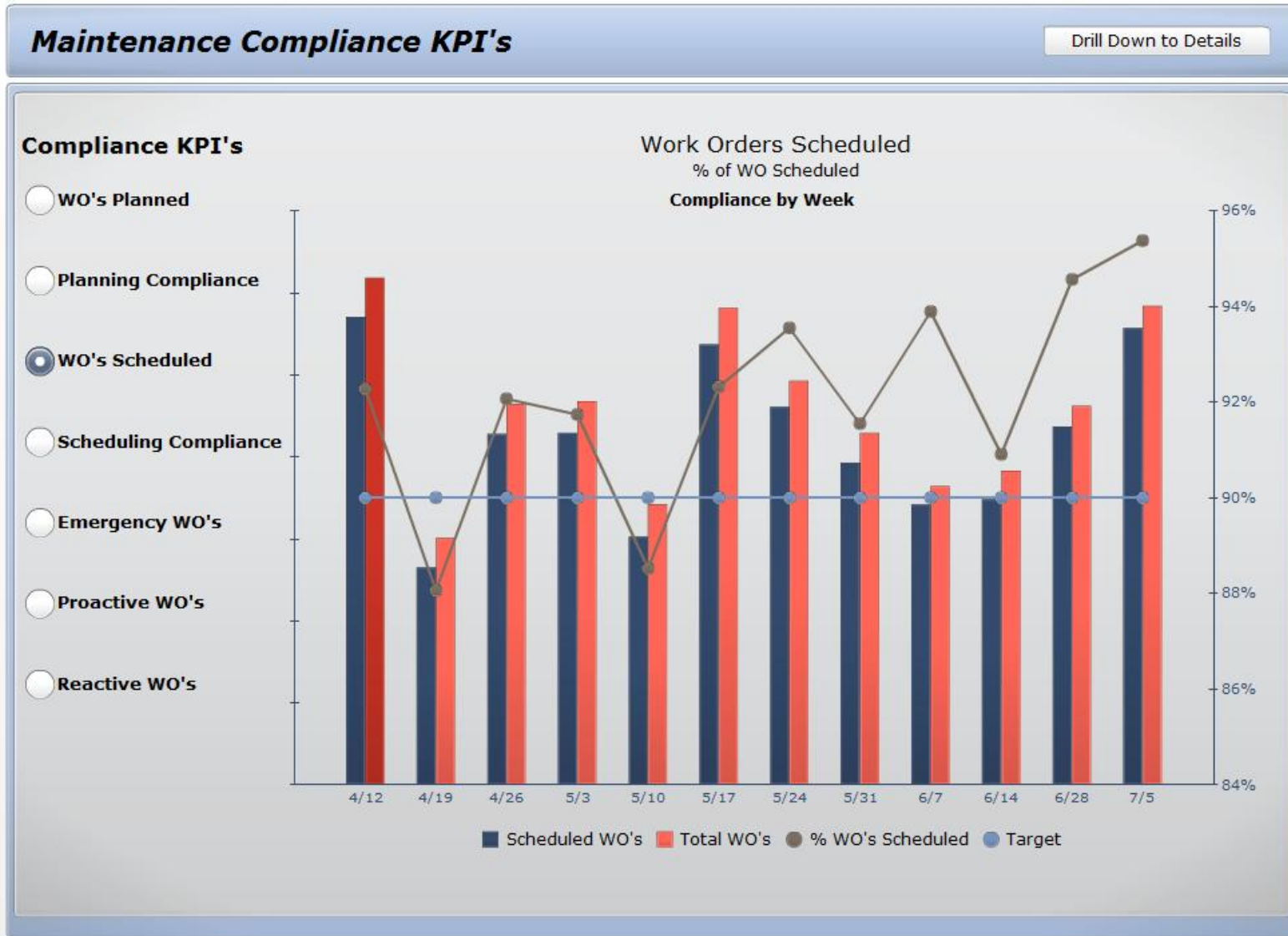


A Platform for Innovation

Full Visibility with Analytics

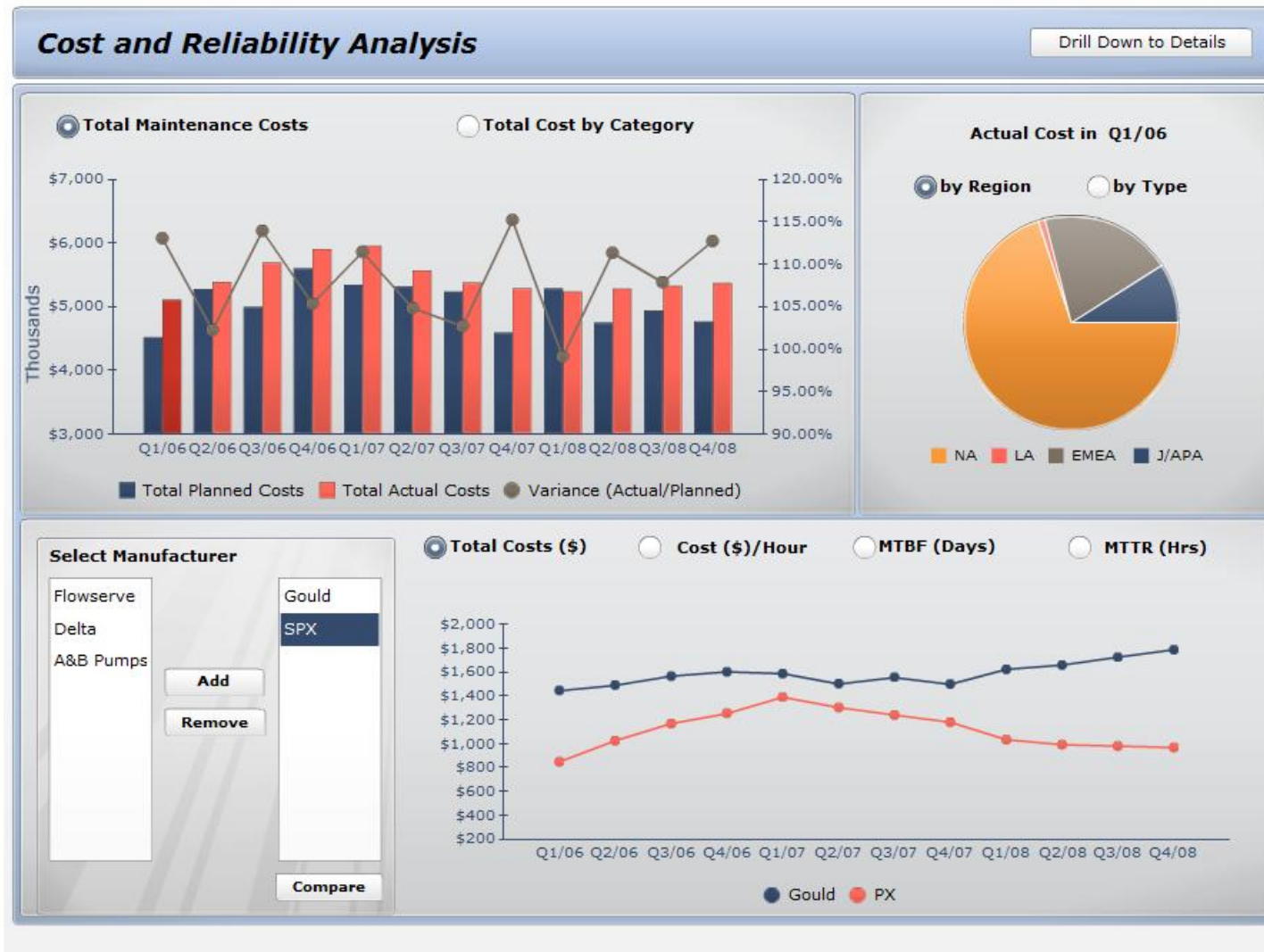


Maintenance Compliance KPI's



When Integration Matters

Asset Reliability and Cost Indicators KPI's



Operational Excellence – Transparency and Visibility (Operations, Production, Safety, Maintenance, Quality)



Enabling Operational Excellence - Mobility

iPad, iPhone, Blackberry, ...





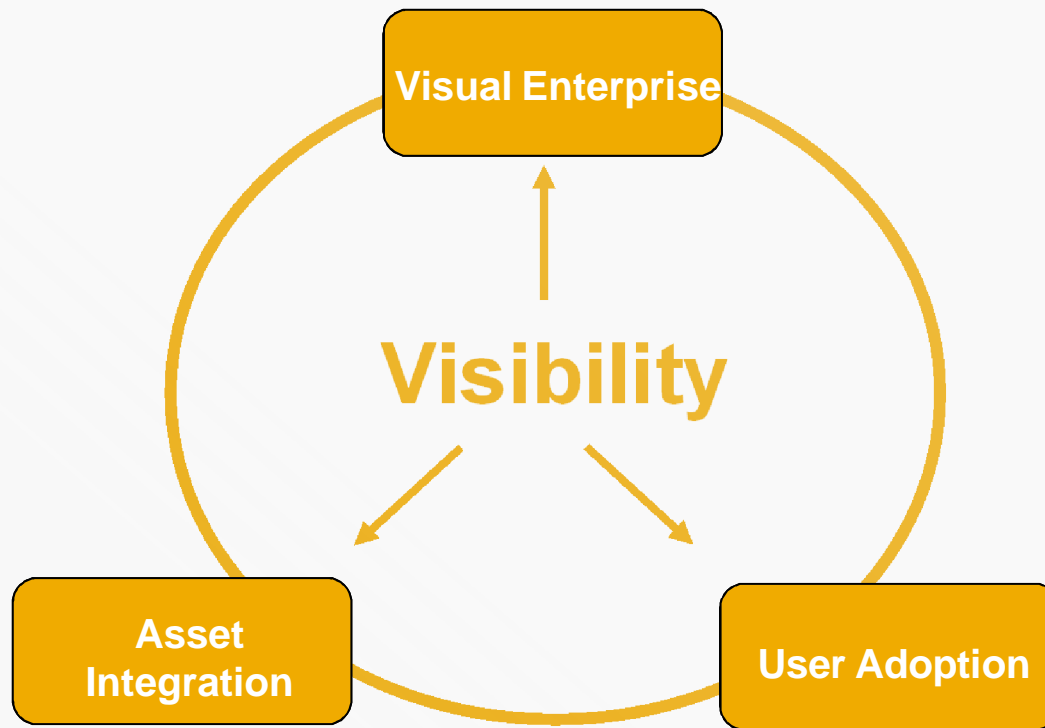
A Platform for Innovation

Full Visibility with Immediate Performance





Powered by HANA



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Maintenance Execution

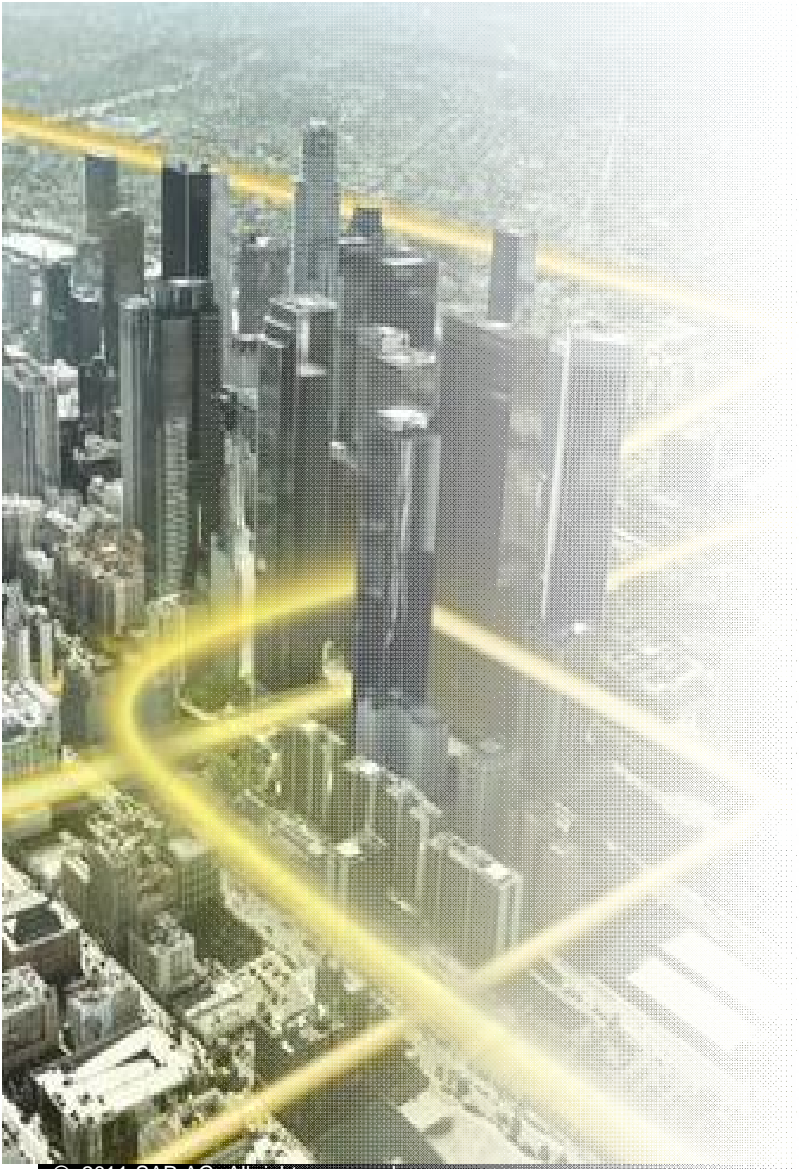
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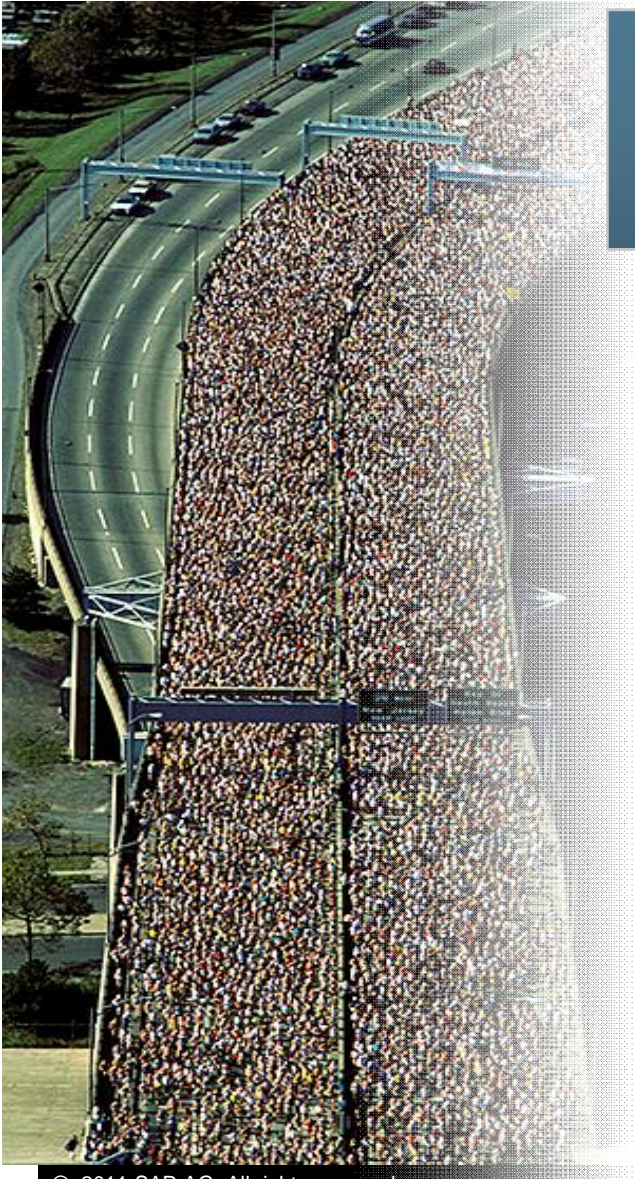
Vision: In-Memory Computing

Background and Context



Technology that allows the processing of **massive quantities of real time data** in the main memory of the server to provide **immediate results** from analyses and transactions

A Breakthrough Innovation That Enables the “Real Real-Time” Enterprise



Time becomes your competitive advantage

- SAP Delivers High Performance Appliance
- Game Changing in Terms of Volume, Speed and Cost

Volume of Company and External Data

- Entire company data resides in memory- providing immediate decisions without compromise
 - Analyze massive amounts data in fractions of a second

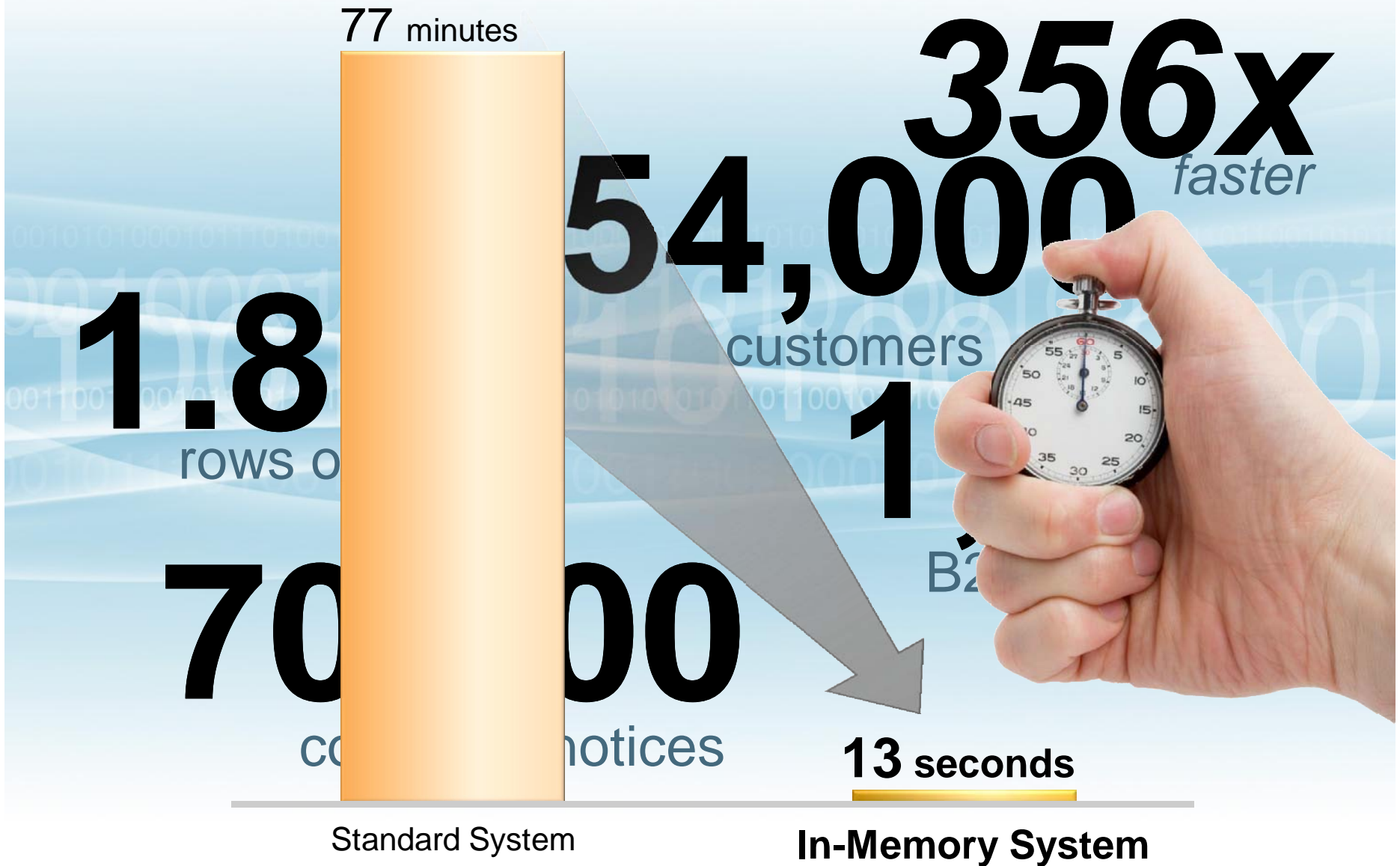
Speed of Business Analysis

- Dramatic processing speed that enables detailed analysis of real-time data
 - Real-time – no time latency, no aggregation

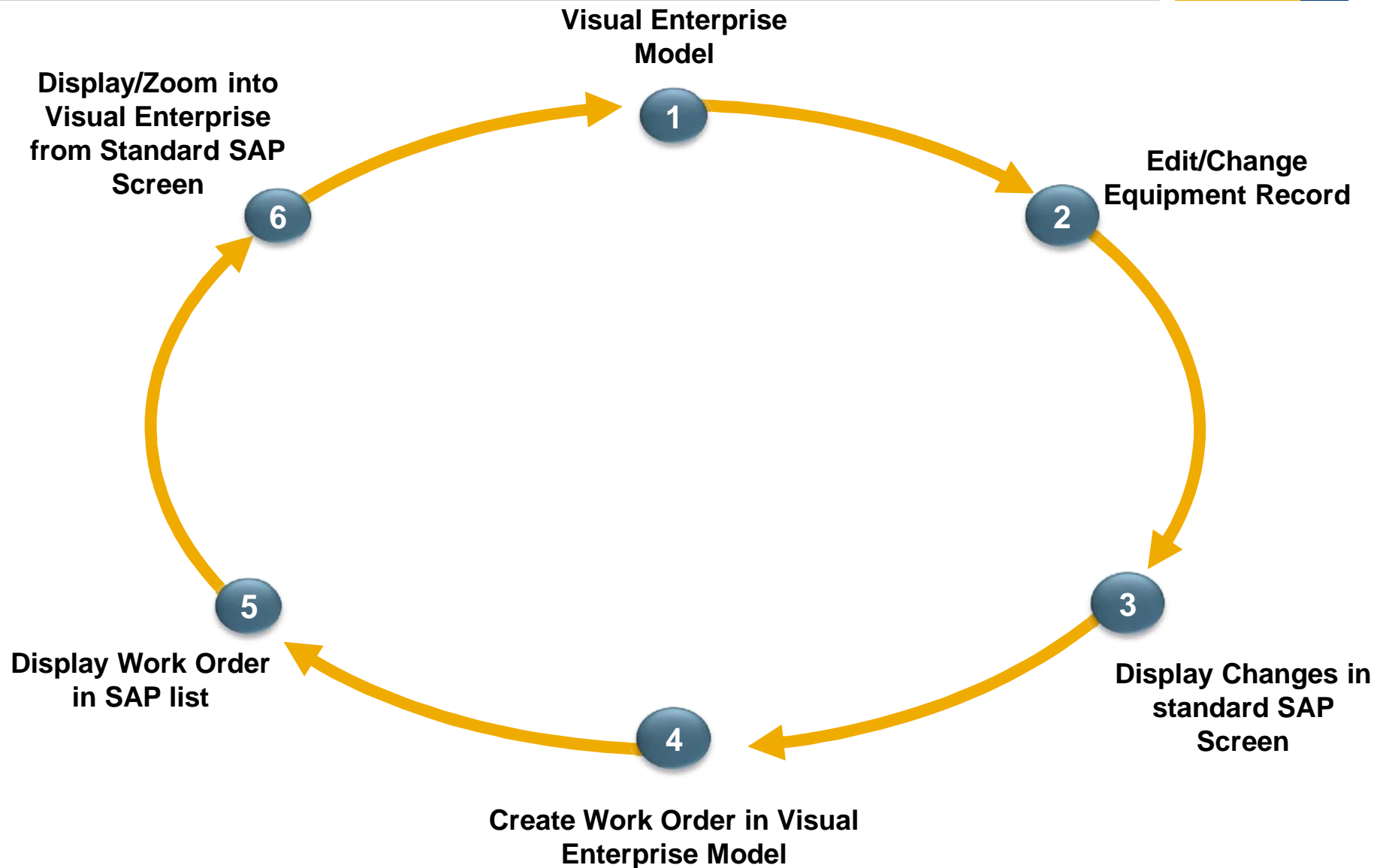
Infrastructure Costs of Data-Intense Businesses

- Higher performance for lower total cost (30% lower than a traditional database approach)
 - Performance and lower cost benefits increase as data increases

SAP HANA in Action at a CPG Company



Visual Enterprise Integration Process





Thank You!

Contact information:

Armando Urias
Executive Solution Engineering
SAP America