

# BHI's Procure to Pay (P2P) Business Activity Monitoring (BAM)

**Anthony Aming**  
Project Manager, Supplier eProcurement



Advancing Reservoir Performance

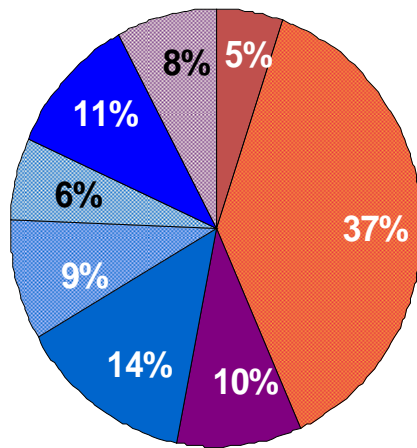
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# In This Session

- Understand the challenges and process to design and implement a Business Activity Monitoring (BAM) solution for Baker Hughes, Inc.'s (BHI) Procure-to-Pay (P2P) process and system.
- Find out what technologies are used and how this approach can be used in your environment.
- Discover how the system provides business users with real-time insight into procurement activity as transactions flow from step to step in the P2P process.
- Review alerts to key individuals and groups when process breakdowns or delays occur.
- See Baker Hughes plans for future supply chain BAM projects to improve their Cash Conversion Cycle (CCC).

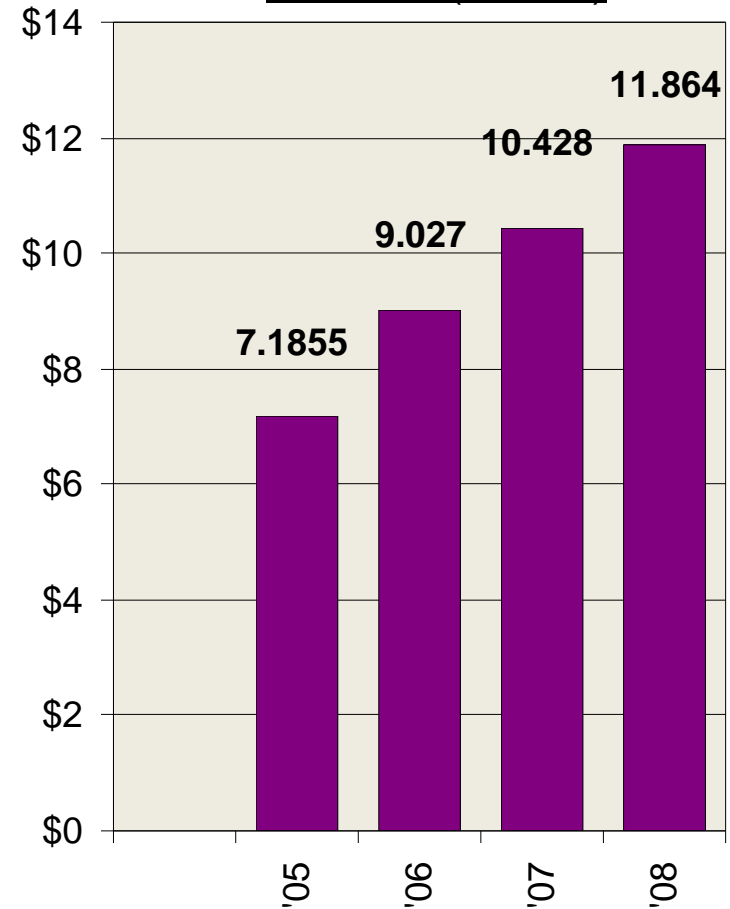
# Baker Hughes, Inc. - At A Glance

2008 Revenue



- Canada
- United States
- Latin America
- Europe
- Africa
- CIS
- Middle East
- Asia Pacific

Revenue (billions)



Year end 2008:  
39,000+ employees in more than 90 countries

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Baker Hughes by the Numbers



# Baker Hughes Incorporated

- Baker Hughes is a global oilfield service company with operations in over 90 countries. We provide advanced products and services to help customers drill, evaluate, complete and produce oil and gas wells. We also provide reservoir engineering and other consulting services.

## Drilling & Evaluation



Formation  
Evaluation



Directional  
Drilling



Drill  
Bits



Drilling  
Fluids



Reservoir  
Consulting

## Completion & Production



Completions



Artificial  
Lift



Specialty  
Chemicals



Permanent  
Monitoring

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# Discovering the Challenges

“People, Process, Technology”



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# What were the Challenges in P2P Process?

## **Business and Operational Challenges**

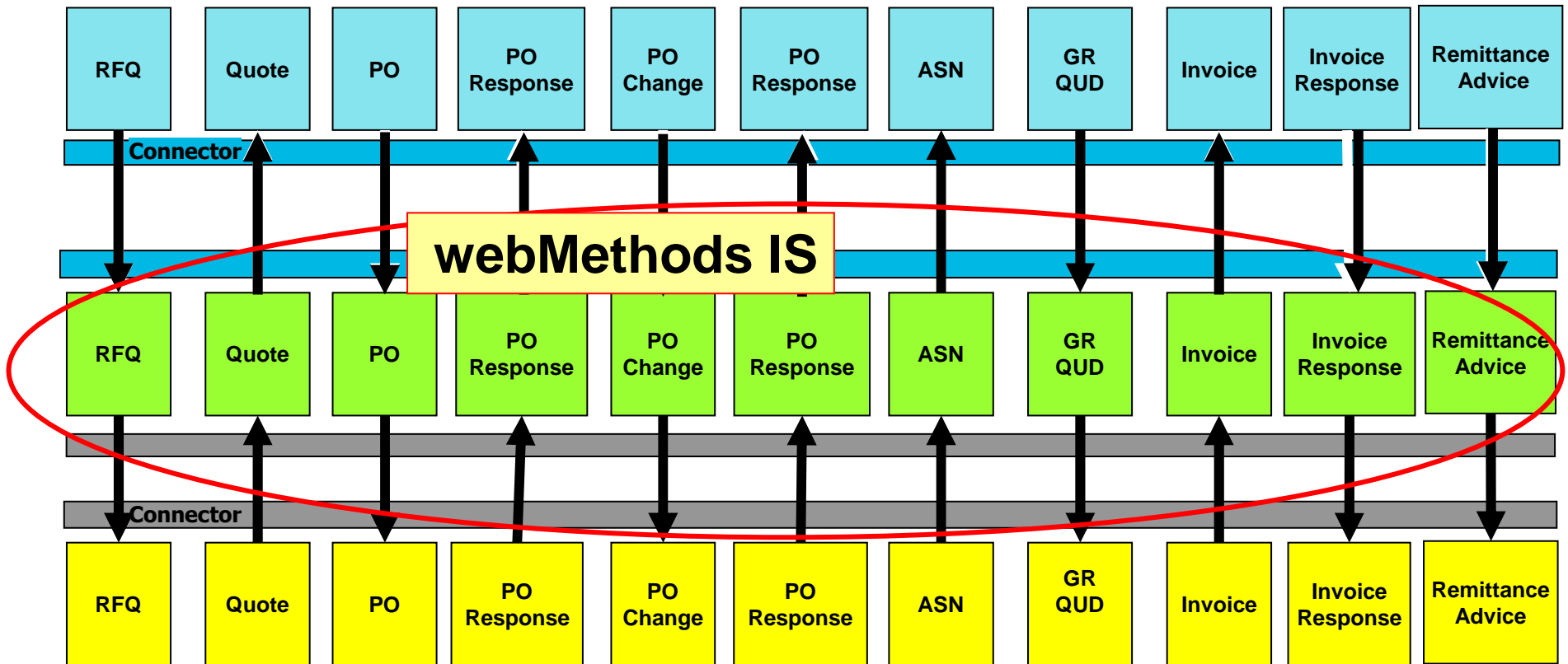
- Lack of end to end process agility, visibility and control
- Material delivery delays from our Suppliers
- Late Payments to our Suppliers
- Issues with data quality and availability
- Systems needed to be Real time and available 24/7

## **Organizational Challenges**

- Span several business areas
- Perception that process varies by product line
- Understanding how BAM complements SAP Business Intelligence (BI)

# What Processes Need To Be Monitored?

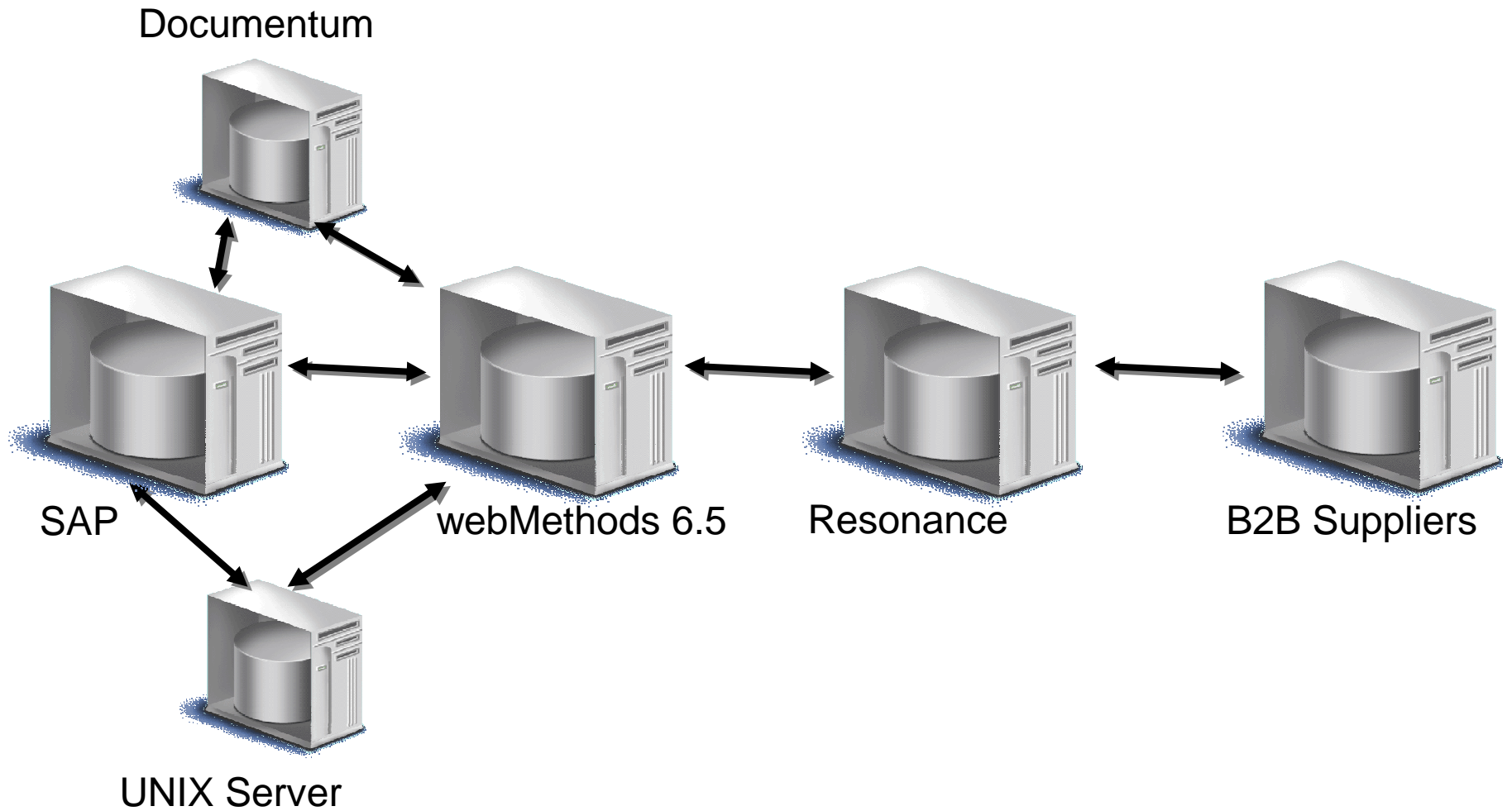
## SAP ECC Buyer



## Resonance or B2B Supplier

PO = Purchase Order, GR = Goods Receipts,  
QUD = Quality Usage Decision

# What Systems Need To Be Monitored?



# Understanding the Requirements



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# Solution Goals

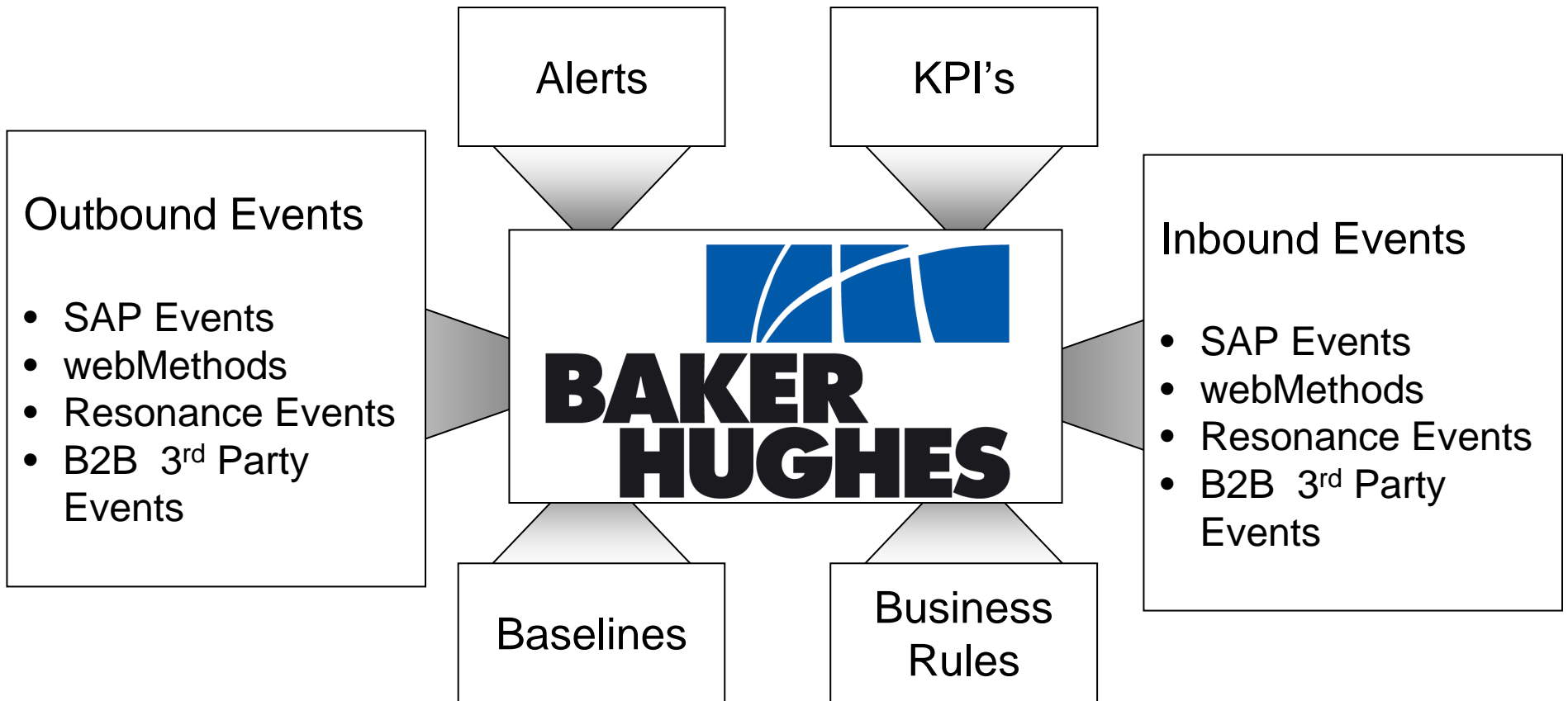
## Objectives

- Successful, efficient, bi-directional transactional flow
- Add value to BHI and Suppliers
- Reduce time spent generating data and increase time spent analyzing and reacting to data
- Holistic approach
- Real time end-to-end visibility

## Deliverables

- Real time KPIs
- Real time end-to-end monitoring, alerts and control
- Easy to use: Manage by exception
- Enable continuous process improvement

# Requirements for our BAM Solution



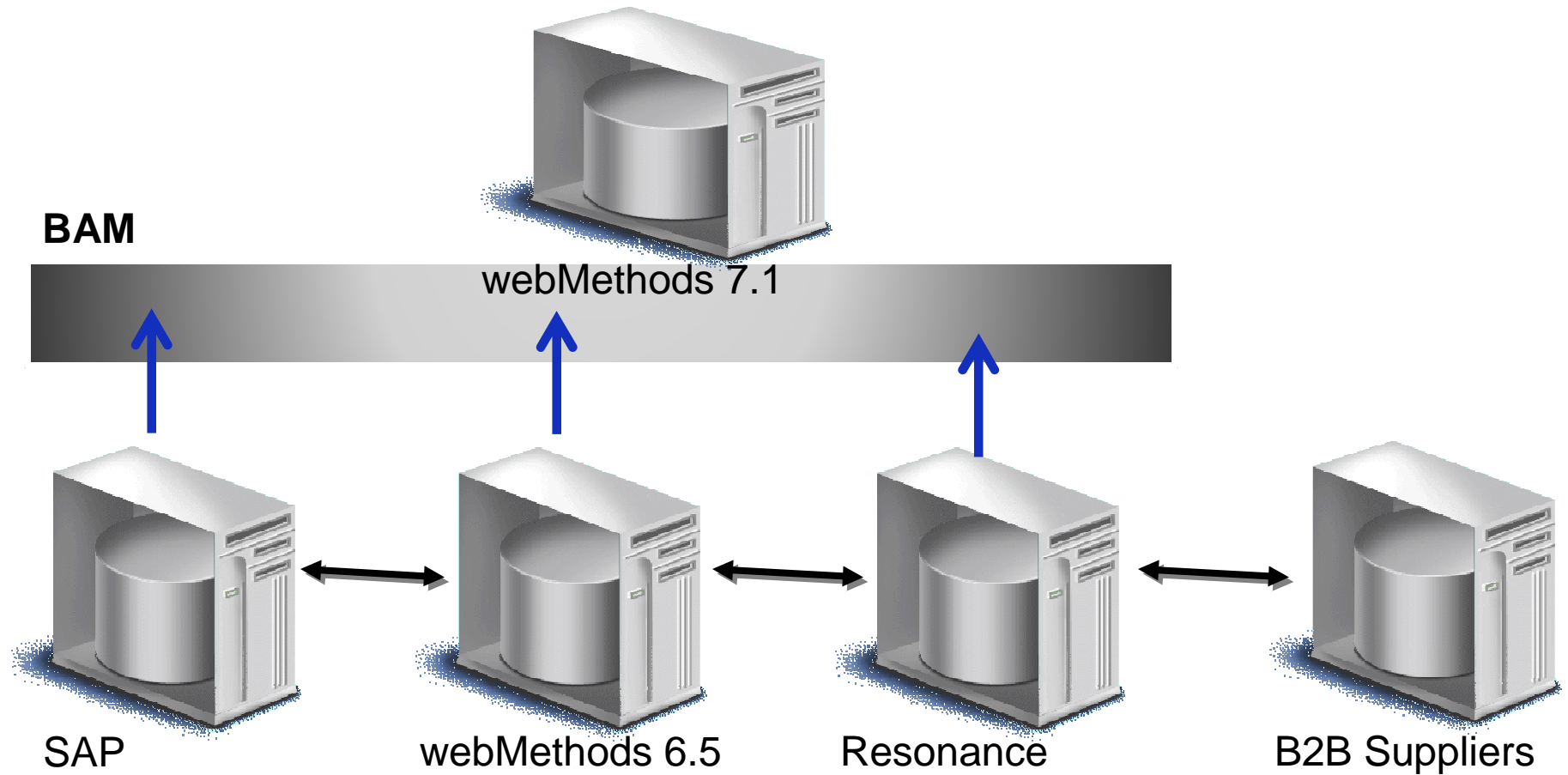
# BHI's P2PS Where BAM Fits In



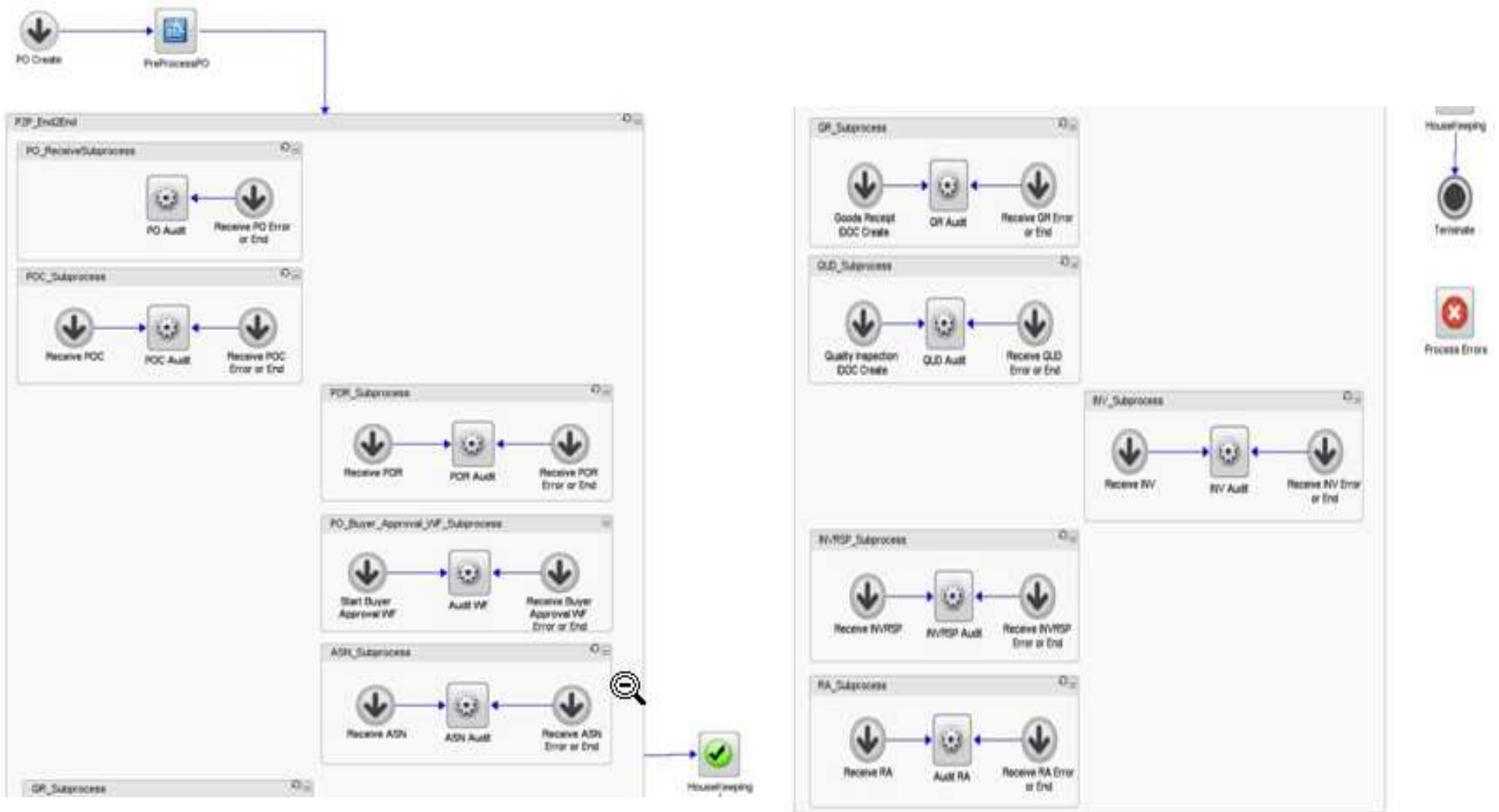
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# Business Activity Monitoring (BAM) of P2PS



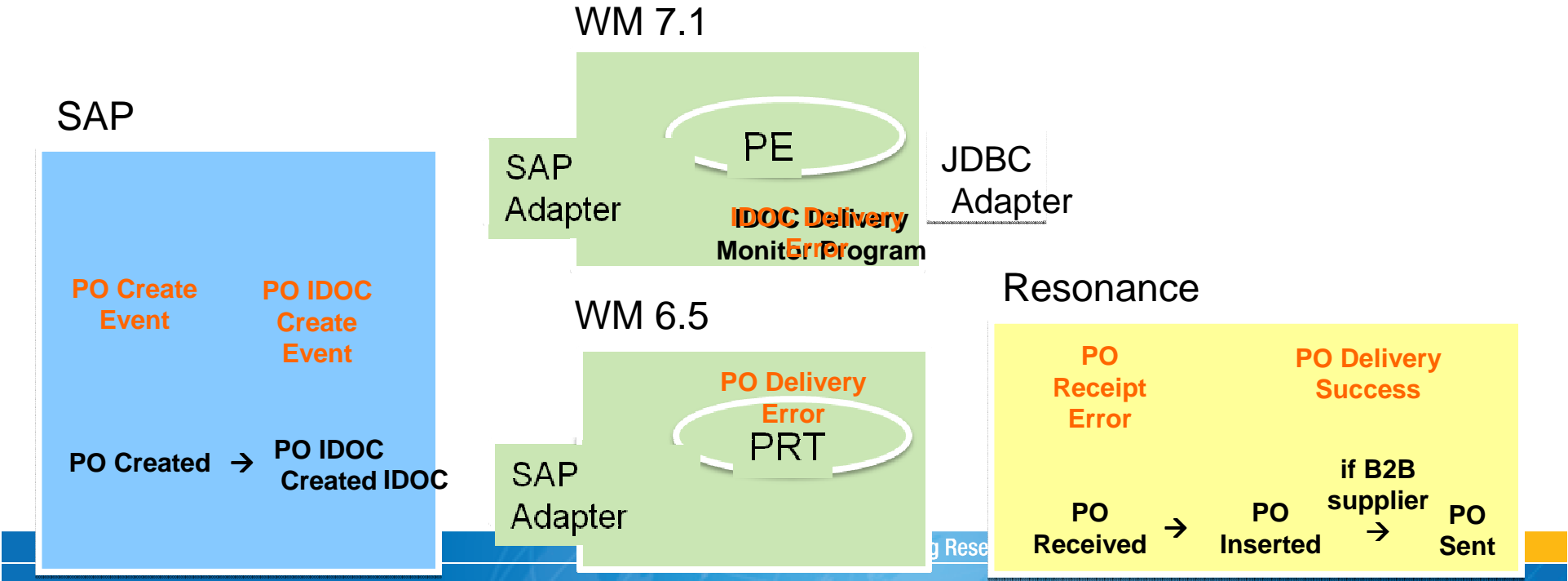
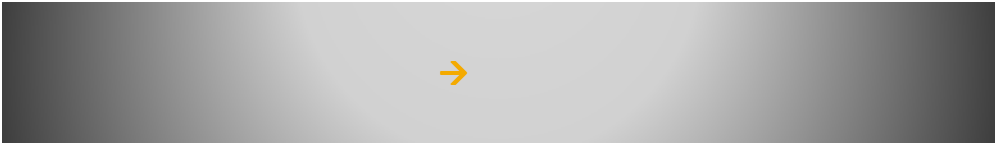
# BHI's End-to-End P2P Process Model



# P2PS BAM Outbound Document Monitoring

Animation Slide

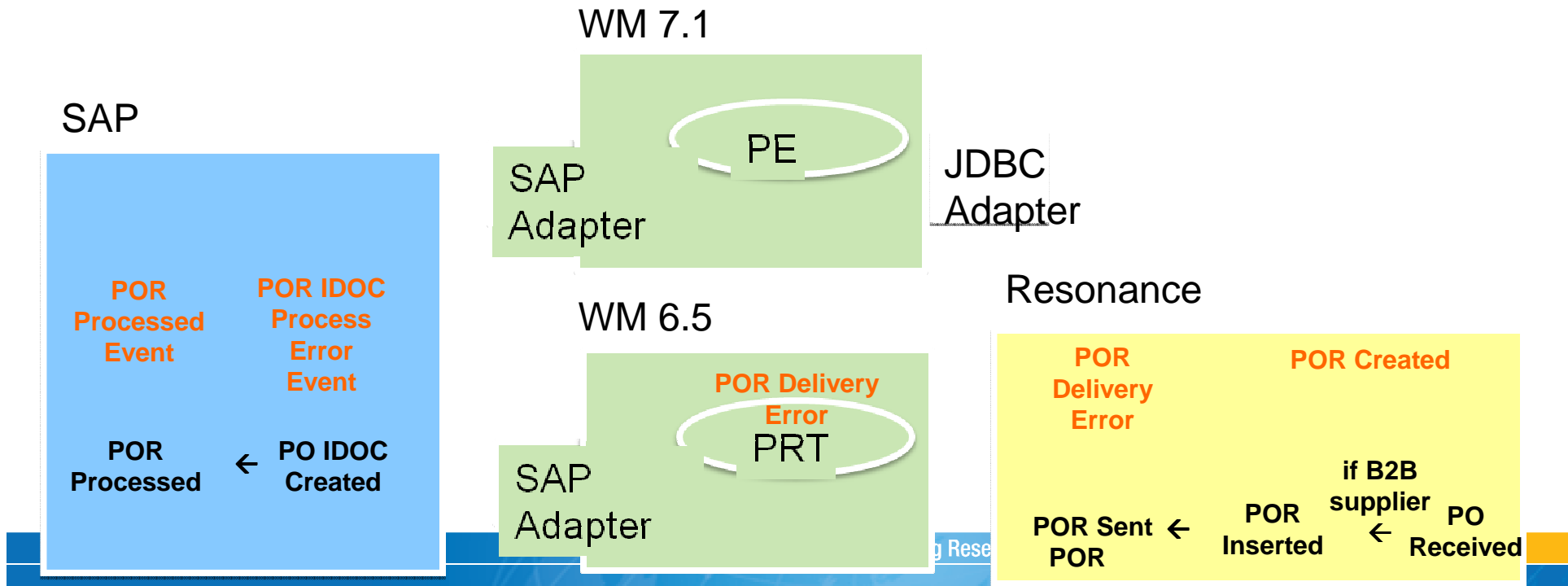
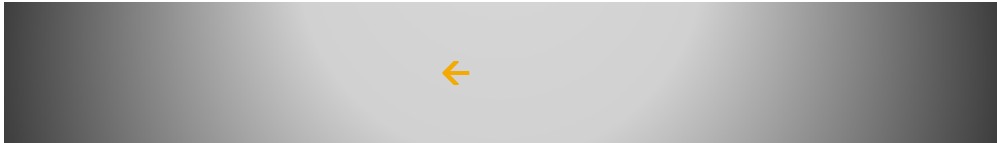
BAM (Optimize for Process)



# P2PS BAM Inbound Document Monitoring

Animation Slide

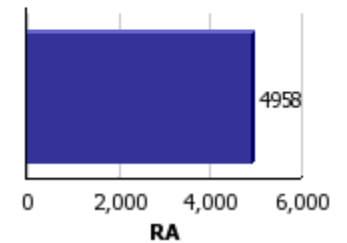
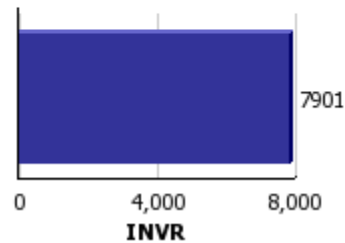
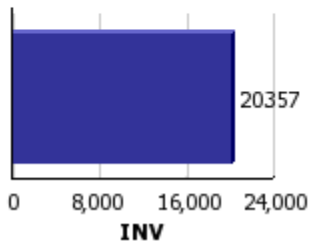
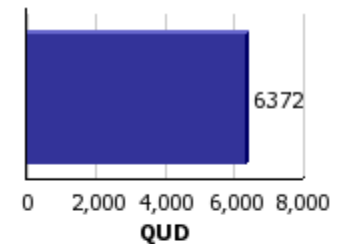
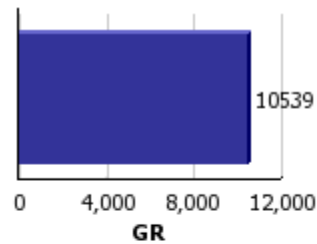
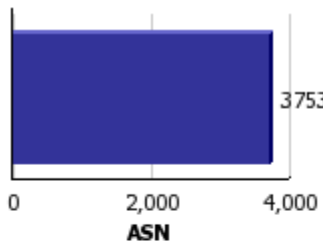
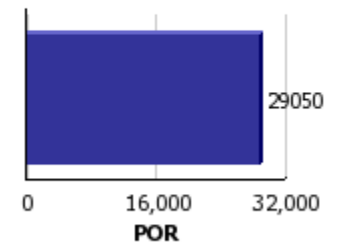
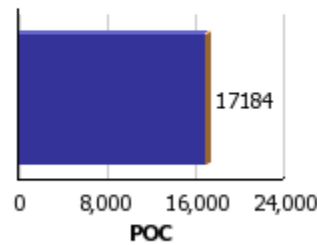
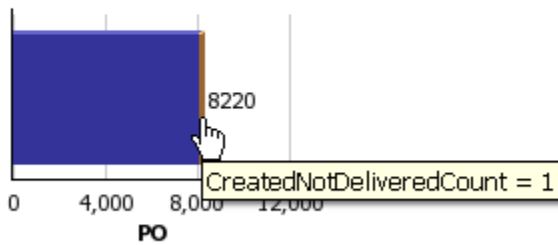
BAM (Optimize for Process)



# End to End System/Transaction Synchronization

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## System In Sync



# Drill Down to Undelivered Purchase Orders

InSync Drill down - Cognos Viewer - Windows Internet Explorer

http://bamreports/cognos8/cgi-bin/cognos.cgi

File Edit View Favorites Tools Help

InSync Drill down - Cognos Viewer

Cognos Viewer - InSync Drill down

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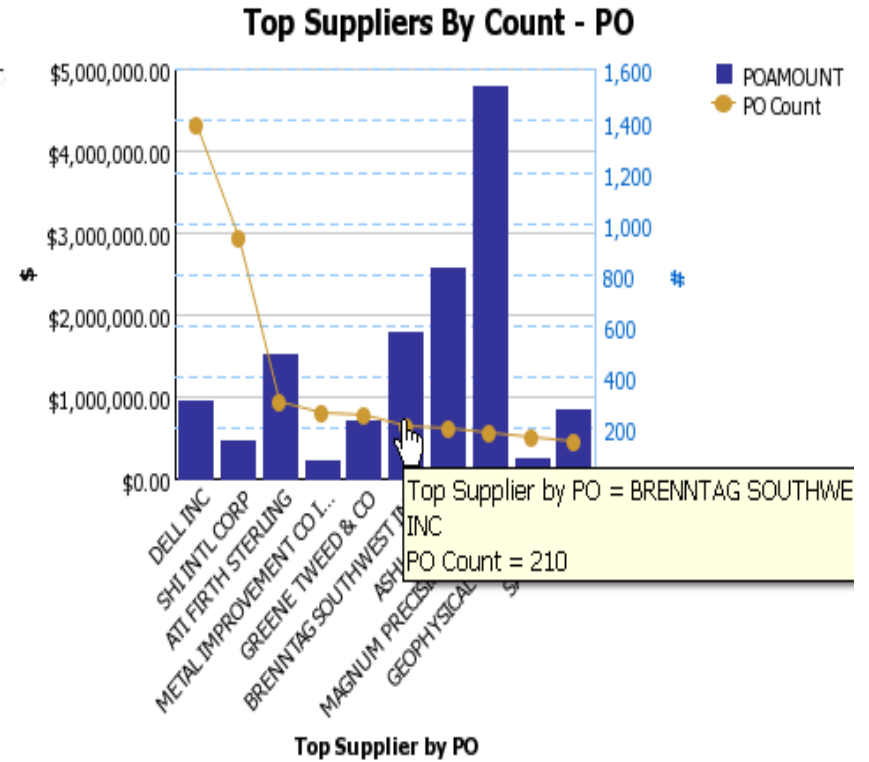
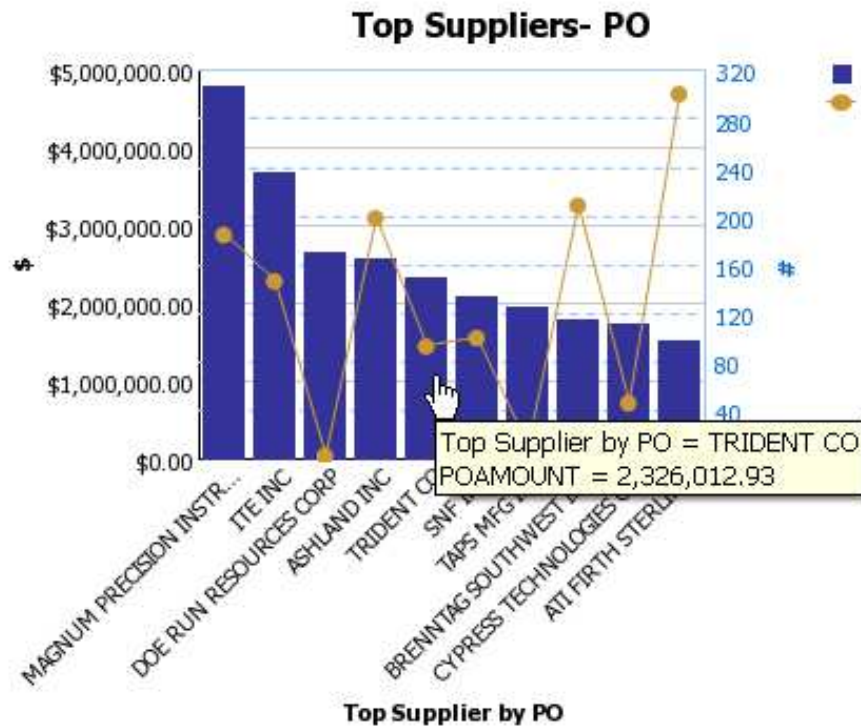
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## Out of Sync Details

Date Range: May 8, 2009 To Sep 18, 2009

Record Number	PO Number	Date	DELIVERY STATUS	Company Code	Purchase Org	Plant	Purchase Group	Supplier	DOCUMENT CREATOR	DIRECTION	Process	TRACKING ID	DOC NUM	MESSAGE
1	4503531996	Sep 15, 2009	Failure	1060	2000	9991	925	DELL INC	CPIC-ITSTORE	OutBound	PO	174987909-0a0f185ff70df619007ed843-Buyer		SAP PO PDF was not generated. Error message - Output type ZP01 not found for the PO.4503531996

# Top Supplier by PO Amount & Count



# Drill down to PO Details

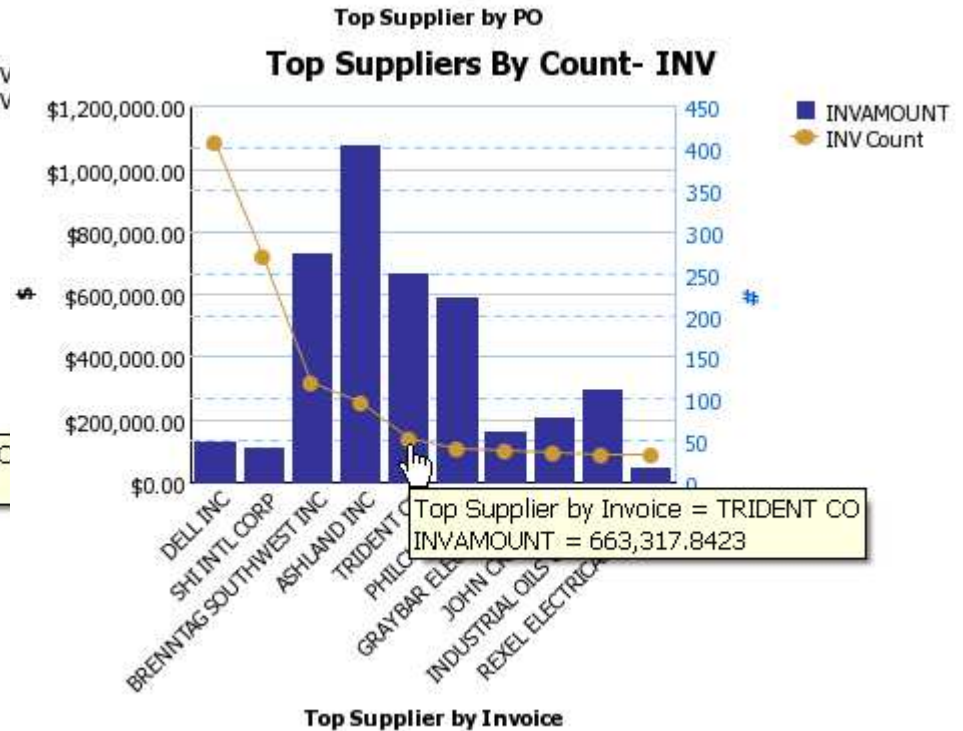
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## Supplier Detail- PO

Date Range: Aug 1, 2009 To Sep 18, 2009  
 Supplier: BRENNTAG SOUTHWEST INC  
 Company Code: 1030, 1080  
 Purchase Org: 1000, 1001, 1006, 1007  
 Plant:  
 Purchase Group:

SUPPLIER	COMPANY CODE	PURCHASING ORGANIZATION	PLANT	PURCHASING GROUP	CREATE DATE	PO NUMBER	COUNT	POAMOUNT
BRENNTAG SOUTHWEST INC	1080	1007	1132	804	Sep 16, 2009	4503533346	1	46,912.5
					Sep 16, 2009	4503533277	1	2,628.49
					Sep 14, 2009	4503530242	1	4,694.5
					Sep 14, 2009	4503529805	1	2,220.35
					Sep 11, 2009	4503527734	1	3,120
					Sep 11, 2009	4503527464	1	2,025.6
					Sep 10, 2009	4503525965	1	1,250
					Sep 10, 2009	4503525770	1	2,220.35
					Sep 8, 2009	4503522431	1	602.89
					Sep 4, 2009	4503520001	1	13,986.31
					Sep 4, 2009	4503519197	1	5,280
					Sep 3, 2009	4503518206	1	4,291.8
					Sep 2, 2009	4503516298	1	4,974.9
					Sep 1, 2009	4503514831	1	10,694.42
					Sep 1, 2009	4503514823	1	3,449.09
					Aug 31, 2009	4503513216	1	23,760
					Aug 31, 2009	4503513137	1	10,706.86
					Aug 28, 2009	4503510875	1	1,658.8
					Aug 27, 2009	4503509720	1	1,718.75
					Aug 27, 2009	4503509268	1	843.26

# Top Supplier by Invoice Amount & Count



# Drill down Invoice Details

Sep 18, 2009 6:06:49 PM

## Supplier Detail-INV

**Date Range:** Aug 1, 2009 To Sep 18, 2009  
**Supplier:** PHILCHEM INC  
**Company Code:** 1030, 1080  
**Purchase Org:** 1000, 1001, 1006, 1007  
**Plant:**  
**Purchase Group:**

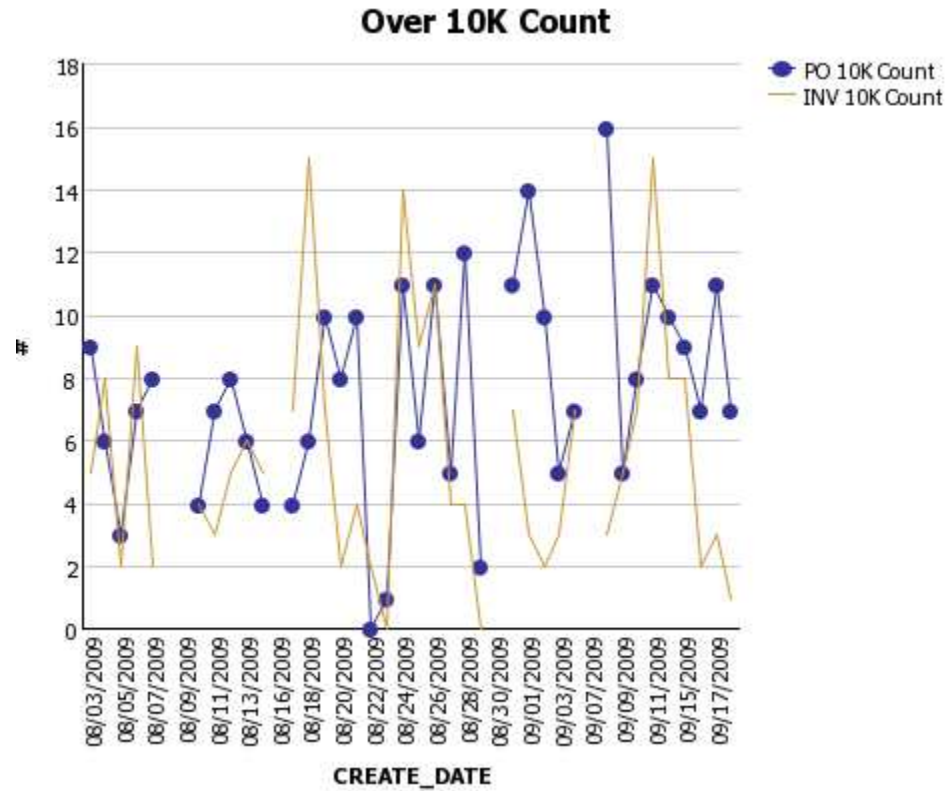
SUPPLIER	COMPANY CODE	PURCHASING ORGANIZATION	PLANT	PURCHASING GROUP	INV CREATE DATE	INV #	INV AMOUNT	PO NUMBER	PO AMOUNT
PHILCHEM INC	1080	1007	1132	804	Sep 15, 2009	PX12992	19,251.218	4503526386	19,251.22
					Sep 11, 2009	PX12988	18,200.86	4503522582	19,243.2
					Sep 15, 2009	PX12947	6,209.352	4503522346	19,380
					Sep 11, 2009	PX12965-2	25,288.7	4503522320	25,288.7
					Sep 11, 2009	PX12969	5,816.584	4503512549	12,920
					Sep 9, 2009	PX12968	5,811.416	4503512549	12,920
					Sep 3, 2009	PX12939	5,658.96	4503512540	12,920
					Sep 4, 2009	PX12937	25,011	4503499950	25,011
					Aug 27, 2009	PX12936	18,234.71	4503499936	18,234.71
					Aug 31, 2009	PX12927	5,936.368	4503494197	11,930
					Aug 25, 2009	PX12925	5,917.28	4503494197	11,930
					Aug 22, 2009	PX12922	26,139	4503491245	44,441.95
					Aug 25, 2009	PX12921	18,302.948	4503491245	44,441.95
					Aug 18, 2009	PX128793	25,331.9	4503489398	25,331.9
					Aug 19, 2009	PX12914	5,929.21	4503486078	
					Aug 21, 2009	PX12915	5,912.508	4503486078	
					Aug 18, 2009	PX12896	17,707.324	4503484472	18,153.6
					Aug 18, 2009	PX12897	18,052.742	4503484370	18,196.8
					Aug 22, 2009	PX12891	13,167	4503481593	13,167
					Aug 18, 2009	PX12885	5,931.596	4503478144	17,895

Sep 18, 2009

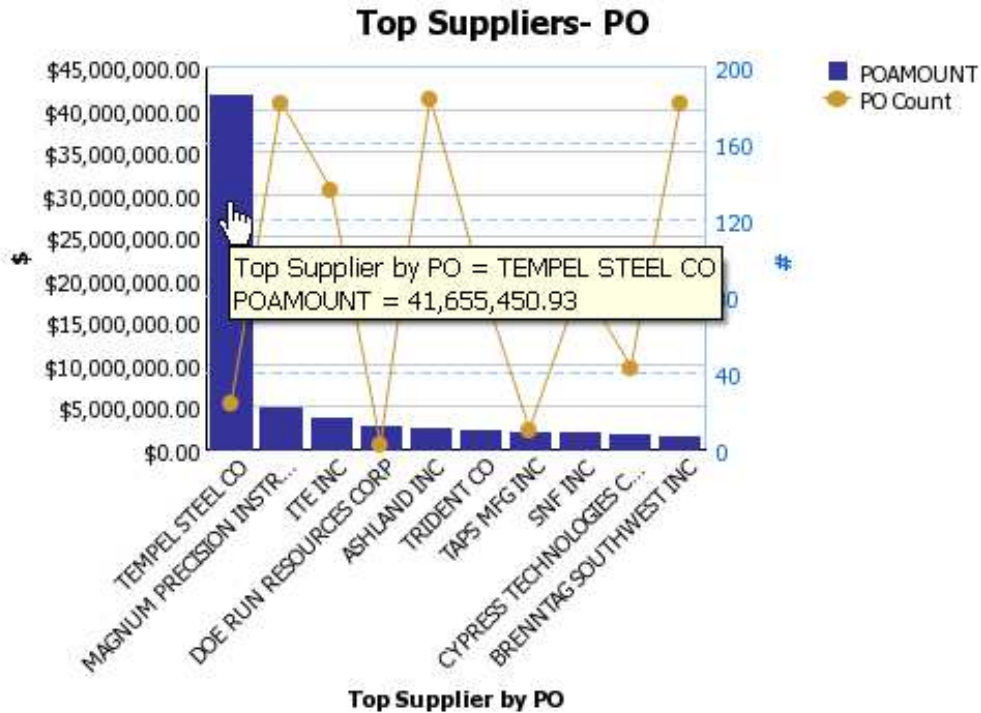
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# Purchase Orders and Invoices > \$10K



# Purchase Order Value appears to be Too Great

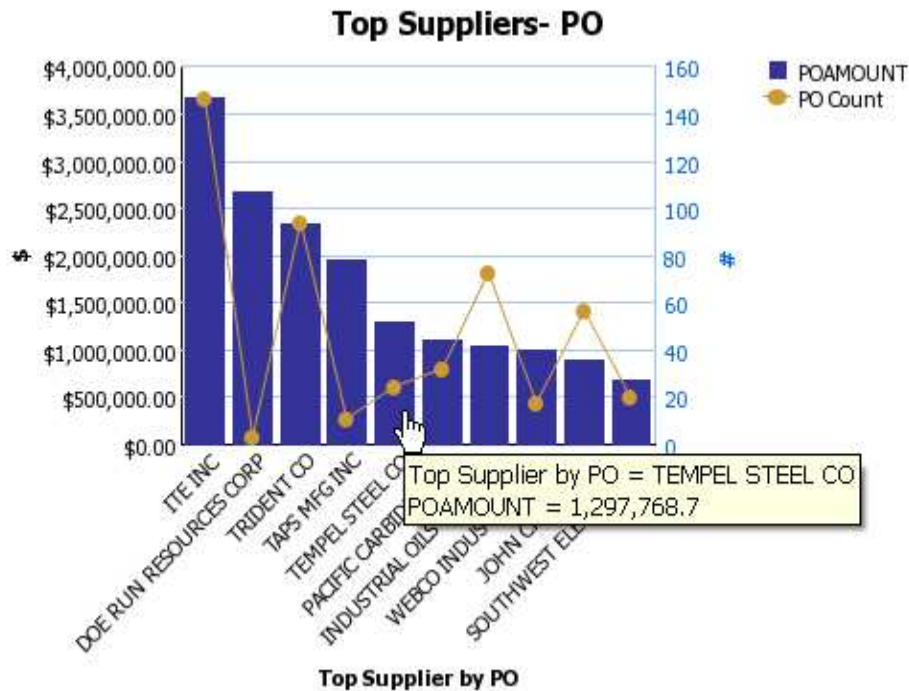


## Supplier Detail- PO

Date Range: May 8, 2009 To Sep 10, 2009  
 Supplier: TEMPEL STEEL CO  
 Company Code:  
 Purchase Org:  
 Plant:  
 Purchase Group:

PURCHASING GROUP	CREATE DATE	PO NUMBER	COUNT	POAMOUNT
606	Sep 9, 2009	4503524793	1	40,441.05
	Aug 26, 2009	4503507904	1	40,441.05
	Jul 9, 2009	4503449374	1	12,339.32
	Jul 2, 2009	4503441568	1	98,881.93
	Jul 2, 2009	4503441564	1	105,265.03
	Jul 2, 2009	4503441559	1	107,709.08
	Jul 2, 2009	4503441194	1	74,387.14
	Jul 2, 2009	4503441166	1	72,797.13
	Jul 2, 2009	4503441129	1	18,830.34
	Jul 2, 2009	4503441095	1	69,070.86
	Jul 2, 2009	4503441006	1	4,707.58
	Jun 29, 2009	4503436449	1	28,534.03
	Jun 29, 2009	4503436448	1	9,976.01
	Jun 29, 2009	4503436446	1	45,224.6
	Jun 29, 2009	4503436430	1	45,224.6
	Jun 29, 2009	4503436415	1	175,832.1
	Jun 29, 2009	4503436409	1	144,603.3
	Jun 29, 2009	4503436408	1	19,460.25
	Jun 29, 2009	4503436403	1	19,460.25
	Jun 29, 2009	4503436388	1	39,691.41

# Fix Purchase Order Problem



## Supplier Detail- PO

Date Range: May 8, 2009 To Sep 18, 2009  
 Supplier: TEMPEL STEEL CO  
 Company Code:  
 Purchase Org: 1006  
 Plant:  
 Purchase Group:

PURCHASING GROUP	CREATE DATE	PO NUMBER	COUNT	POAMOUNT
606	Sep 9, 2009	4503524793	1	40,441.05
	Aug 26, 2009	4503507904	1	40,441.05
	Jul 9, 2009	4503449374	1	12,339.32
	Jul 2, 2009	4503441568	1	98,881.93
	Jul 2, 2009	4503441564	1	105,265.03
	Jul 2, 2009	4503441559	1	107,709.08
	Jul 2, 2009	4503441194	1	74,387.14
	Jul 2, 2009	4503441166	1	72,797.13

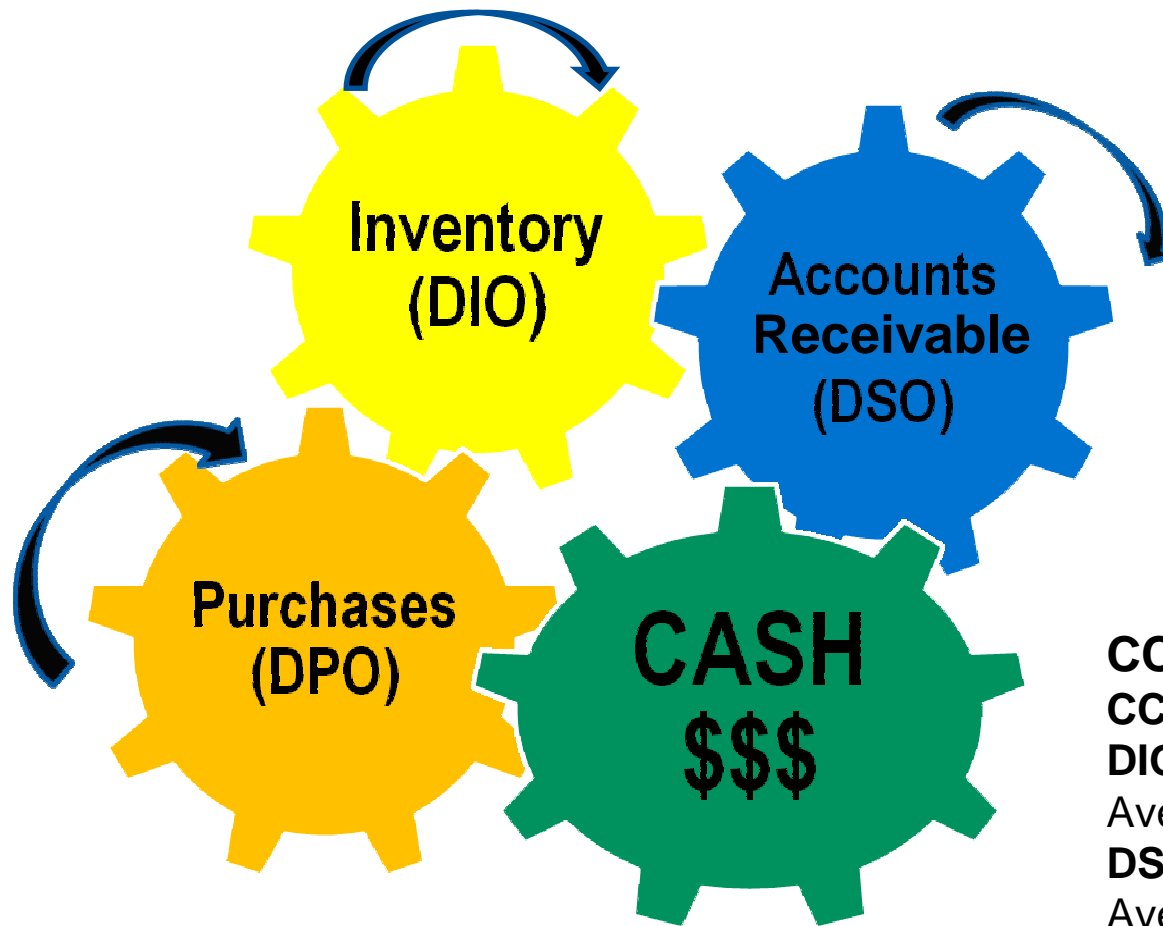
# BHI's Coming Attractions



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# Cash Conversion Cycle



$$CCC = DIO + DSO - DPO$$

**CCC = Cash Conversion Cycle**

**DIO = Days Inventory Outstanding**  
Average Stockholding Period

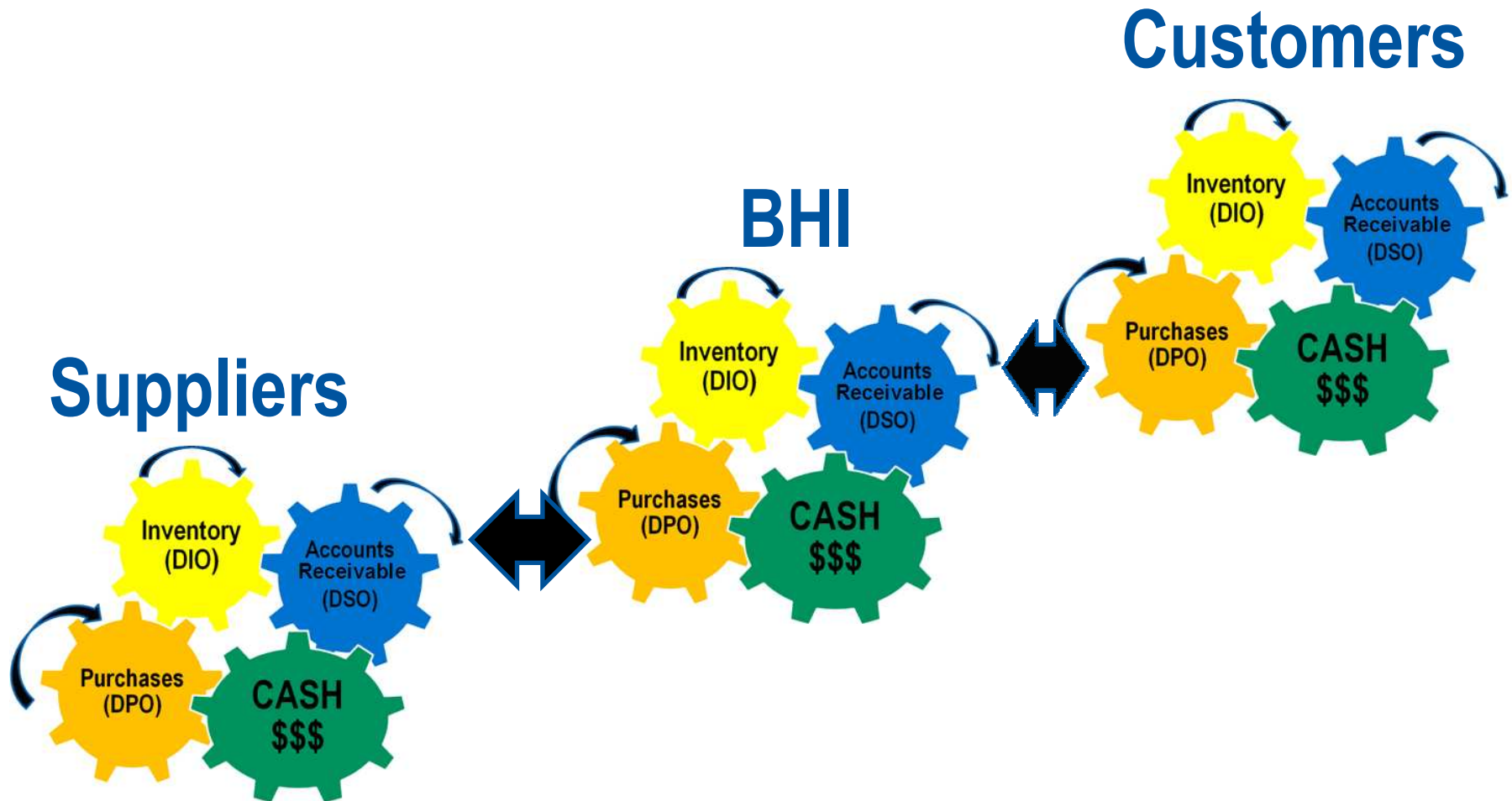
**DSO = Days Sales Outstanding**

Average Receivables Processing Period

**DPO = Days Payables Outstanding**

Average Payable Processing Period

# Everyone is Involved!



# Baker Hughes Quote to Cash Project

Bringing Agility, Visibility and Control  
to Business Operations



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# Quote-to-Cash | Key Performance Indicators



# Invoice to Pay Process Instrumentation

Bringing Agility, Visibility and Control  
to Business Operations

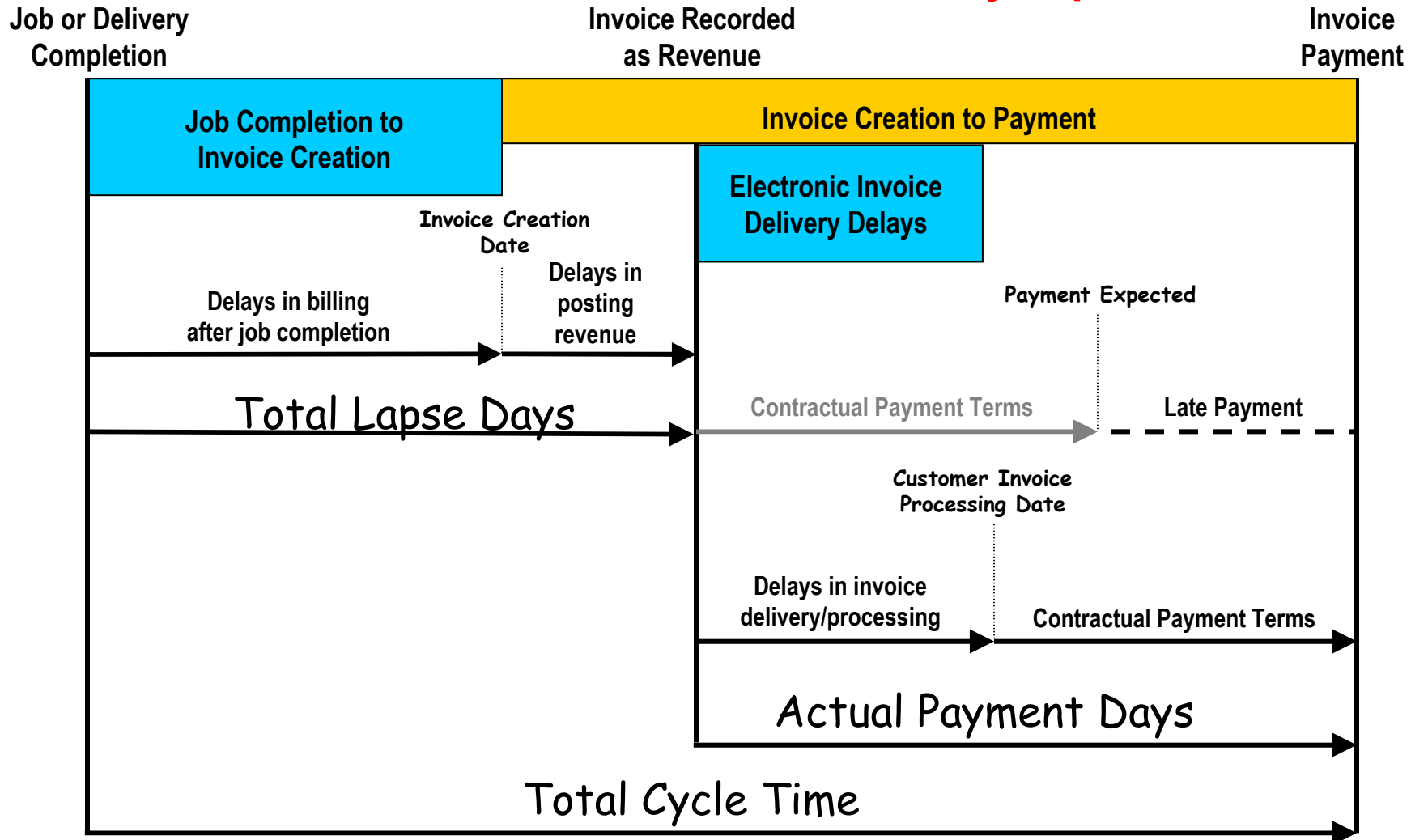


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# Customer Invoice-to-Pay Life Cycle

**Directly Impacts DSO Metrics**



# Wrap Up



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# Solution Goals

## Objectives

- ✓ Successful, efficient, bi-directional transactional flow
- ✓ Add value to BHI and Suppliers
- ✓ Reduce time spent generating data and increase time spent analyzing and reacting to data
- ✓ Holistic approach
- ✓ Real time end-to-end visibility

## Deliverables

- ✓ Real time KPIs
- ✓ Real time end-to-end monitoring, alerts and control
- ✓ Easy to use: Manage by exception
- ✓ Enable continuous process improvement

# 7 Key Points to Take Home

1. Develop a holistic plan involving all teams
  - Get buy in at all levels
2. Keep it Simple
  - Phased approach
  - Start small and grow
3. Differentiate between KPIs and reports, alerts and monitoring
4. Establish long term strategy with continuous improvement
5. Spend more time on data analysis than on collection
6. Align metrics with business focus corporate strategy
7. Ensure data is accurate and timely



**Tip**

# Thank You! Your Turn!



## Questions?

How to contact me:  
Anthony Aming  
[Anthony.Aming@BakerHughes.com](mailto:Anthony.Aming@BakerHughes.com)