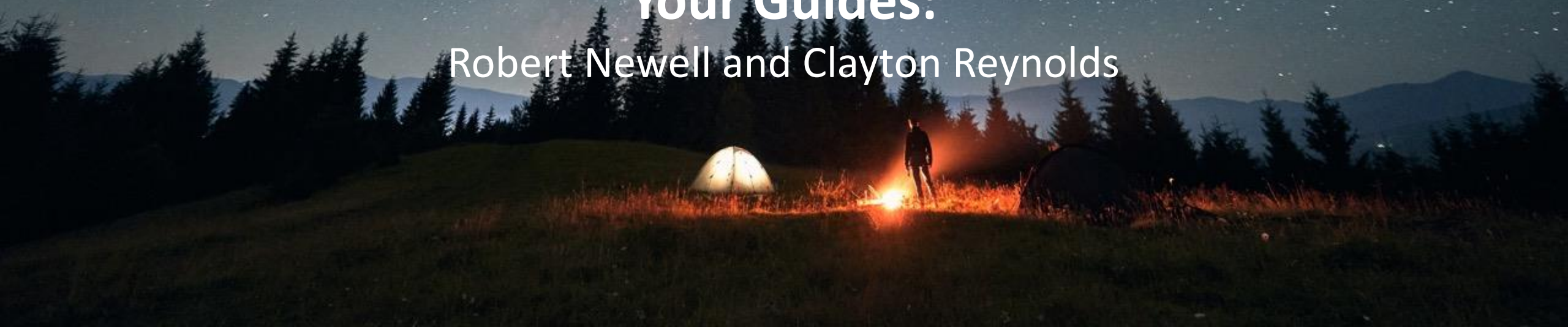




# Reporting Strategies

**Your Guides:**

Robert Newell and Clayton Reynolds



# Agenda

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REPORTING STRATEGY  
INTRODUCTION



CA PPM REPORTING  
OPTIONS



EXTERNAL BI TOOLS /  
USE WITH CA PPM



BEST PRACTICES

# Reporting Strategy Introduction



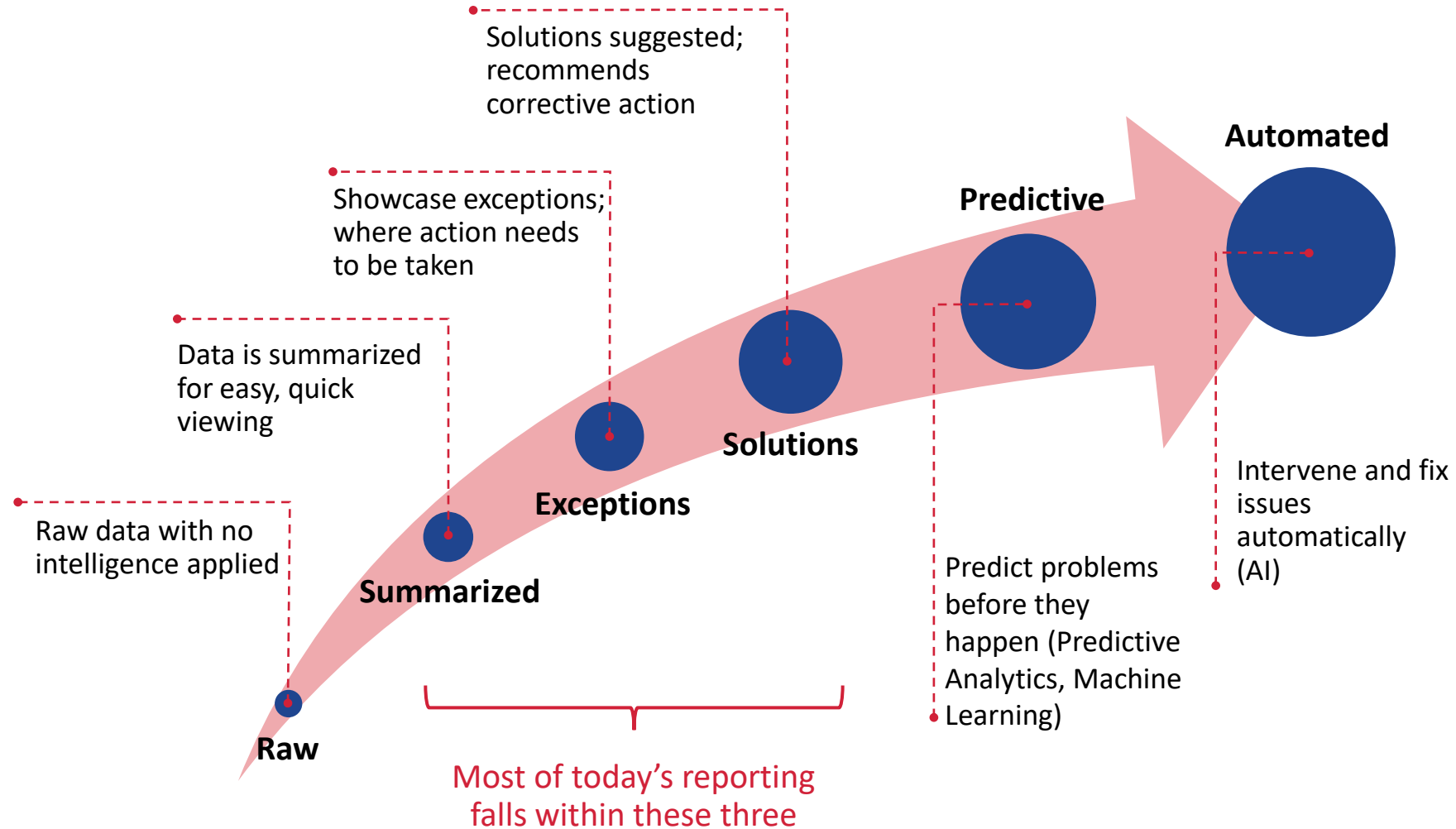
# Industry Trends & The Future of BI

- Data and analytics as a core business function
  - D&A is now making the shift into a core business function, rather than a secondary activity. D&A now is a shared business asset aligned to business results. Gartner noted that D&A silos break down because of better collaboration between central and federated D&A teams.
- Graph relates everything
  - Graphs form the foundation of most modern data and analytics capabilities and are reliant on the foundation to find relationships between people, places, things, events and locations across a wide variety of data assets. D&A leaders rely on graphs as quick answers to complex business questions, which require contextual awareness and an understanding of the nature of connections and strengths across multiple entities.
  - Gartner predicts that by 2025, graph technologies will be used in 80% of data and analytics innovations, up from 10% in 2021, facilitating rapid decision making across the organization.
- Augmented Analytics
  - Machine Learning
  - Augmented data preparation
  - Visual-based data discovery
  - Automated advanced analytics
  - Natural Language Processing

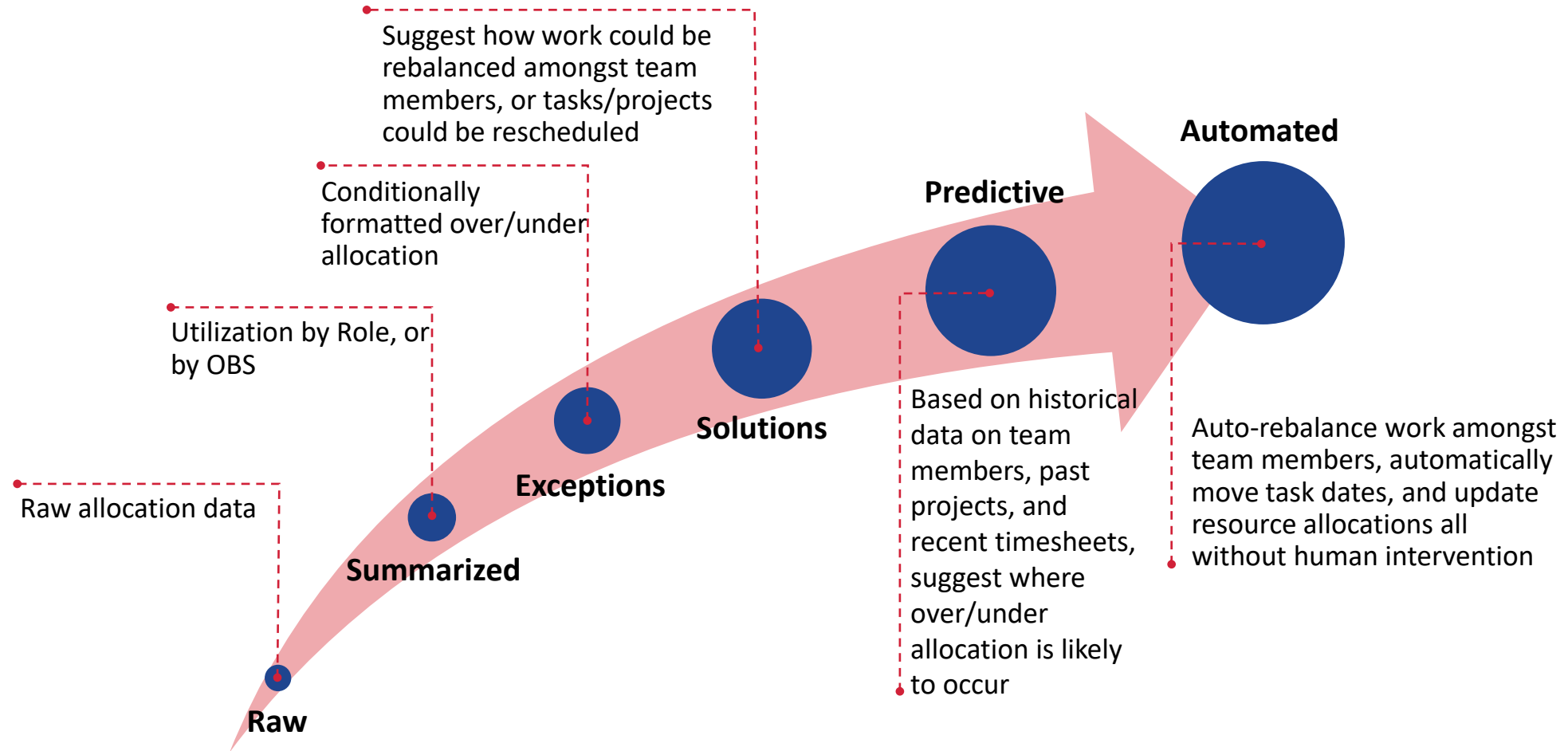




# Evolution of Business Intelligence

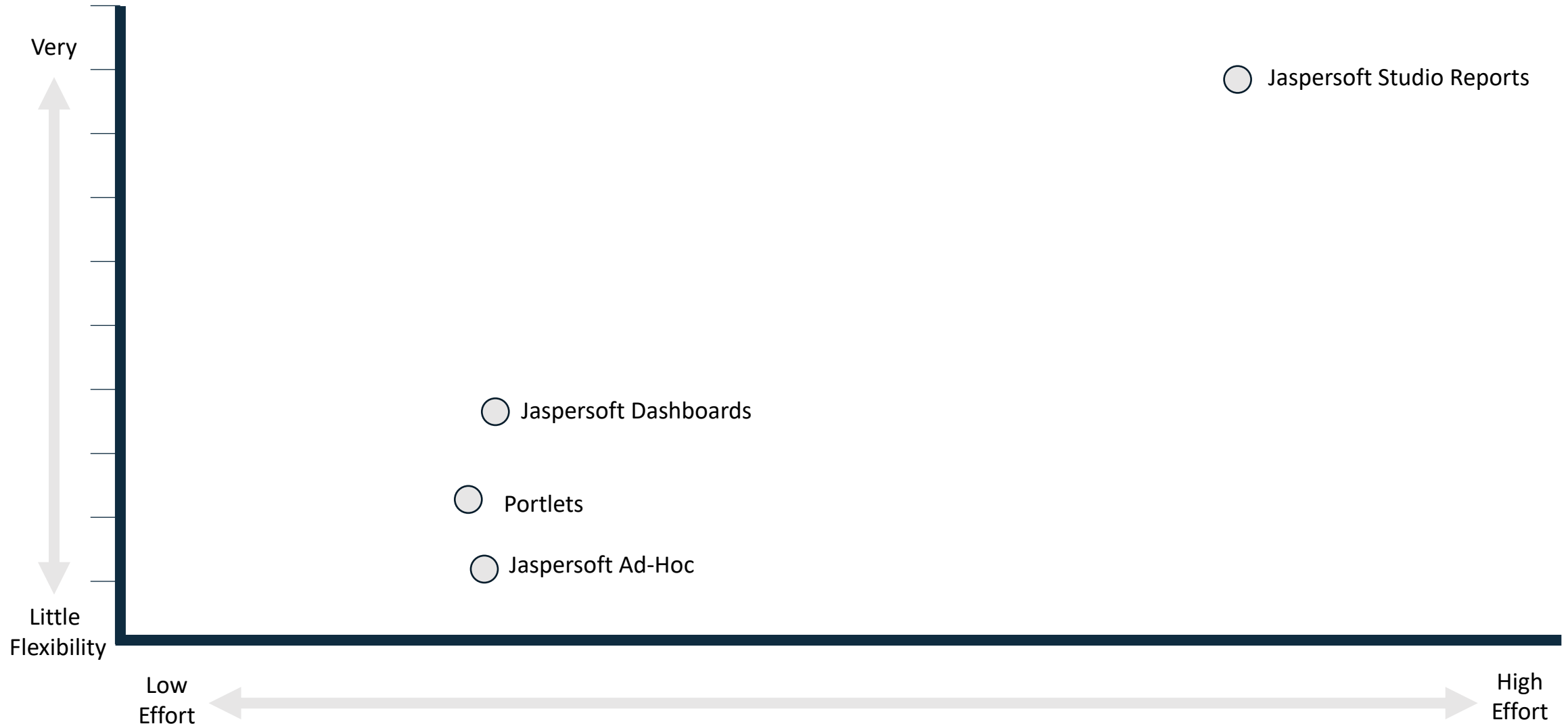


# Example: Resource Allocations



# CA PPM Reporting Options

# OOTB Reporting Tool - Flexibility vs Effort





# OOTB Reporting Tools

## Portlets



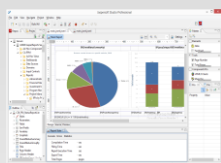
- Data wholly resides in Clarity
- Reports are operational, used day to day.
- Data is rendered within acceptable performance thresholds
- The data does not need to be accessed by non-clarity users
- The number of data elements required does not negatively affect the usability.
- Personalization features

## Dashboards (Jaspersoft)



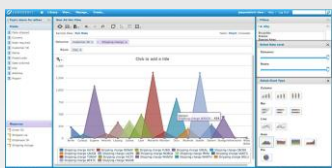
- Summary level information that can be further drilled into
- Dashboards provide an easy-to-read interface
- Dashboards provide interactive viewing, and drill down capabilities

## Studio Reports (Jaspersoft)



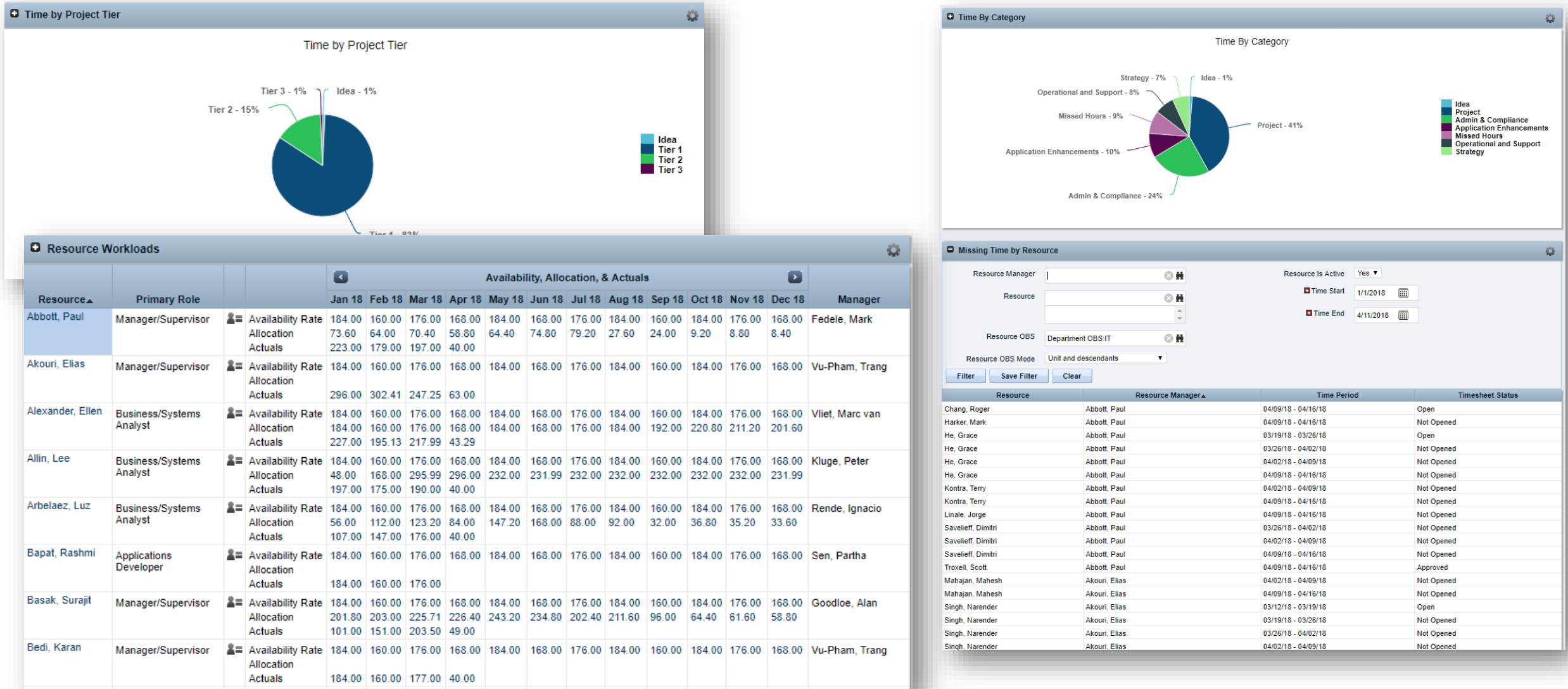
- Data wholly resides in Clarity
- PDF Format needed
- Format requires advanced formatting
- Report access outside of Clarity required
- Archiving is required
- Multiple reports required and presented as a single package
- Large number of calculations

## Ad-Hoc (Jaspersoft)



- Data wholly resides in Clarity
- PDF Format needed
- Used for 'on the fly' reporting
- NOTE: Ad Hoc reports are best suited for 'super-users' who have an understanding of the underlying data.

# Real World Example - Portlets



# Portlets in the Modern UX

- In the Modern UX, custom portlets are – to an extent – being replaced by a heavy focus on personalization.
- Channels still leveraged for classic portlet dashboards.

The screenshot displays a modern dashboard interface with several portlets and annotations highlighting key UX features:

- Clarity PPM Portlet:**
  - Annotations:** "PINNING" (pointing to the 'TO DO' tab), "SAVED VIEWS & FILTERS" (pointing to the 'VIEW' dropdown), "AUTOSIZE & DRAG/DROP" (pointing to the table header), and "FLYOUTS" (pointing to the date range selector).
  - Table Data:**

Project Name	Team Member	Start*	End*
Eclipse Enhancements	Sage Copeland; Sam Rubio; Sara Sumner; Tanner Grant	Mar 14 2019	Mar 29 2019
Eclipse Enhancements	Karl Abbott; Ray Fowler; Rory Walker; Sage Copeland; Sam Rubio; Tanner	Feb 26 2019	Apr 08 2019
	Dana Lewis; Karl Abbott; Leigh Clark; Rory Walker; Sage Copeland; Sam Rubio; Tanner Grant	Mar 11 2019	Apr 19 2019
	Grace Thomas; Sage Copeland; Sam Rubio; Tanner Grant	Apr 01 2019	Apr 03 2019
- CSV EXPORT Portlet:**
  - Annotation:** "CSV EXPORT" (pointing to the download icon).
  - Table Data:**

Name	Category T...	*Priority	Probab
This could be a...	Objectives	High	Low
Sponsorship Ri...	Sponsorship	Medium	Medium
- Cost Plan and Transaction Portlet:**
  - Annotations:** "GROUPING" (pointing to the 'Cost Type' filter) and "ONE-CLICK CONFIG" (pointing to the 'VIEW' dropdown).
  - Table Data:**

Cost Type*	Transaction Class*	2019-01				TOTALS				
		PLANNED	ACTUAL	REMAINING	% SPENT	PLANNED	PLANNED	ACTUAL	REMAINING	% SPENT
		163,960	20,000	143,960	12%	155,1	1,613,520	89,200	1,524,320	6%
Capital		62,000	0	62,000	0%	2,0	101,000	0	101,000	0%
	License Costs	60,000	0	60,000	0%		60,000	0	60,000	0%
	Travel	2,000	0	2,000	0%	2,0	41,000	0	41,000	0%
Operating		101,960	20,000	81,960	20%	153,	1,512,520	89,200	1,423,320	6%

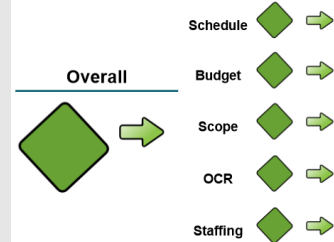
# Real World Example – Jaspersoft Studio Reports

## AMERICAN EAGLE Primary Team Forecast Vs Budget Review (Capital Only)

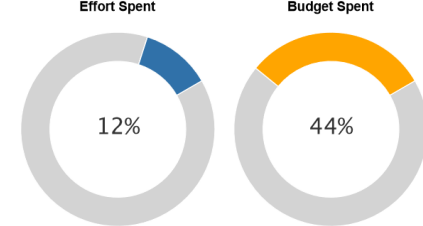
Project Code	Project	Project Manager	Capital Forecast	Capital Budget	Capital Actual
IT_116_ARIBA	ARIBA RE-IMPLEMENTATION	Richards, Daly			
AED_ATG_2017	ATG 11.2 UPGRADE / KLO	Louie, Patricia			
AED_Chatbots_17	CHATBOTS	Bell, Heather			
AED_PTC_2017	CHECKOUT & PAYMENT				
AED_CICD_2017	CI/CD				
AED_CRM_2017	CRM / DATA				
AED_DBA_2017	DBA				
AED_SYSTEMENG17	DIGITAL INFRASTRUCTURE				
AED_CLOUD_2017	ENVIRONMENTS				
AED_FLEXFILL_17	FLEXIBLE FULFILLMENT				
AED_HERITAGE17	HERITAGE COMMERCE PLATFORM DISCOVERY				
AED_INNOVAT_17	INNOVATIONS / IN STORE TECHNOLOGY				
AED_LOYAL_HUB17	LOYALTY & ACCOUNT MANAGEMENT - HUB				
AED_LOYAL_POS17	LOYALTY & ACCOUNT MANAGEMENT - POS				
AED_LOYAL_STE17	LOYALTY & ACCOUNT MANAGEMENT - SITE				

### 2017 - Enterprise Insights Foundation (HANA EDW)

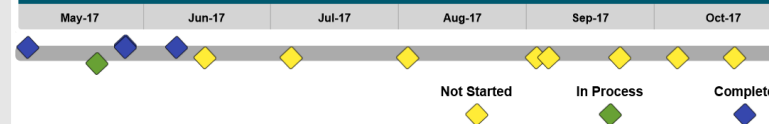
#### Project Health



#### Cost and Effort



#### Status Information



#### Key Accomplishments

- Conducted Wave 0 Test Cycle kickoff
- Continued work on finalizing Wave 1 requirements
- Conducted alignment checkpoint with Masterdata Governance
- Production system build complete and cutover plan provided to team
- First communication from SC drafted and submitted for Sponsor approval

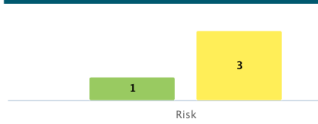
#### Project Information

**Contact** Palicki, Matthew  
**Finish Date** February 28, 2018

#### Status Report Update

Testing for Wave 0 deliverables has kicked off with expected completion and subsequent go-live in PROD by end of week 12-June. Concurrently, Wave 1 requirements are being finalized and prepared for sign-off. Communications continue to be developed along with plans for next Steering Committee (SC) update and demonstration of functionality by the Business Leads.

#### Active Risks, Issues, & Change Requests



#### Upcoming Activities

- Complete Wave 0 testing and promote to PROD upon signoffs
- Obtain signoff on Wave 1 requirements and commence build
- Distribute first communication through the SC
- Schedule next SC update (week of 10-July) and begin preparing for demo

## AMERICAN EAGLE

### Corporate Portfolio Status Update

11 April 2018

	High confidence the defined goal will be achieved.		Issues occurring for which the owner has an agreed plan necessary for bringing status back to green by a defined date/event.		Issues occurring for which there is no defined plan to bring status to Yellow. Owner is responsible for driving status to Yellow and for requesting and gathering support from everyone necessary across the business to do so in the most appropriately expeditious manner.		Project is completed. No Status to report.
--	--	--	--	--	--	--	--

Feature Summary									
Feature	Project Manager	Phase	Targeted Release	Overall Status	Executive Summary	Cost & Effort	Schedule	Scope	Spend to Date
	McClain, Keisha				The focus is completing QE for Milestone 1, continuing development and QE on Milestone 2. Requirements walkthrough is occurring for Milestone 3.				\$0
	Kumar, Vijay				The team is working on UI and Services for enrollment, profile view, CSR and All Access features. The team did not have environments for testing until 2.20.17, the team is about 4 weeks behind on...				\$0
					sen finalized, Monthly Demo mode have been finalized, toward Demo2 goals. 2017				\$0
					In 2018 discussions for on...				\$0
					activity model went live in 17th timer enabled successfully in				\$0
					work on the Governance Risk framework				\$0
					Green Week Technical issues: Sections data from 3				\$0
					Completed on 1/11. Currently for Procure to Pay. Final cost, implementation plan 2/22.				\$0



# Recent Jaspersoft Improvements

- 15.3
  - Re-Introduction of Reports and Jobs – moving the ability to quickly access and schedule reports out of the Advanced Reporting link
  - Ability to have “My Reports” again
  - Jaspersoft reports now utilize the Parameters native to CA PPM
  - The ability to run a report via the *Actions* menu on an Object is back
- 15.4
  - New version of Jaspersoft (6.4.2)
  - Running reports via Reports / Jobs output can now output to XLS (previously just ppt and pdf)
  - Dashboard enhancements
- 15.5.1
  - New version of Jaspersoft (7.1)
  - New Roadmap Timeline report
- 15.6
  - New trending reports

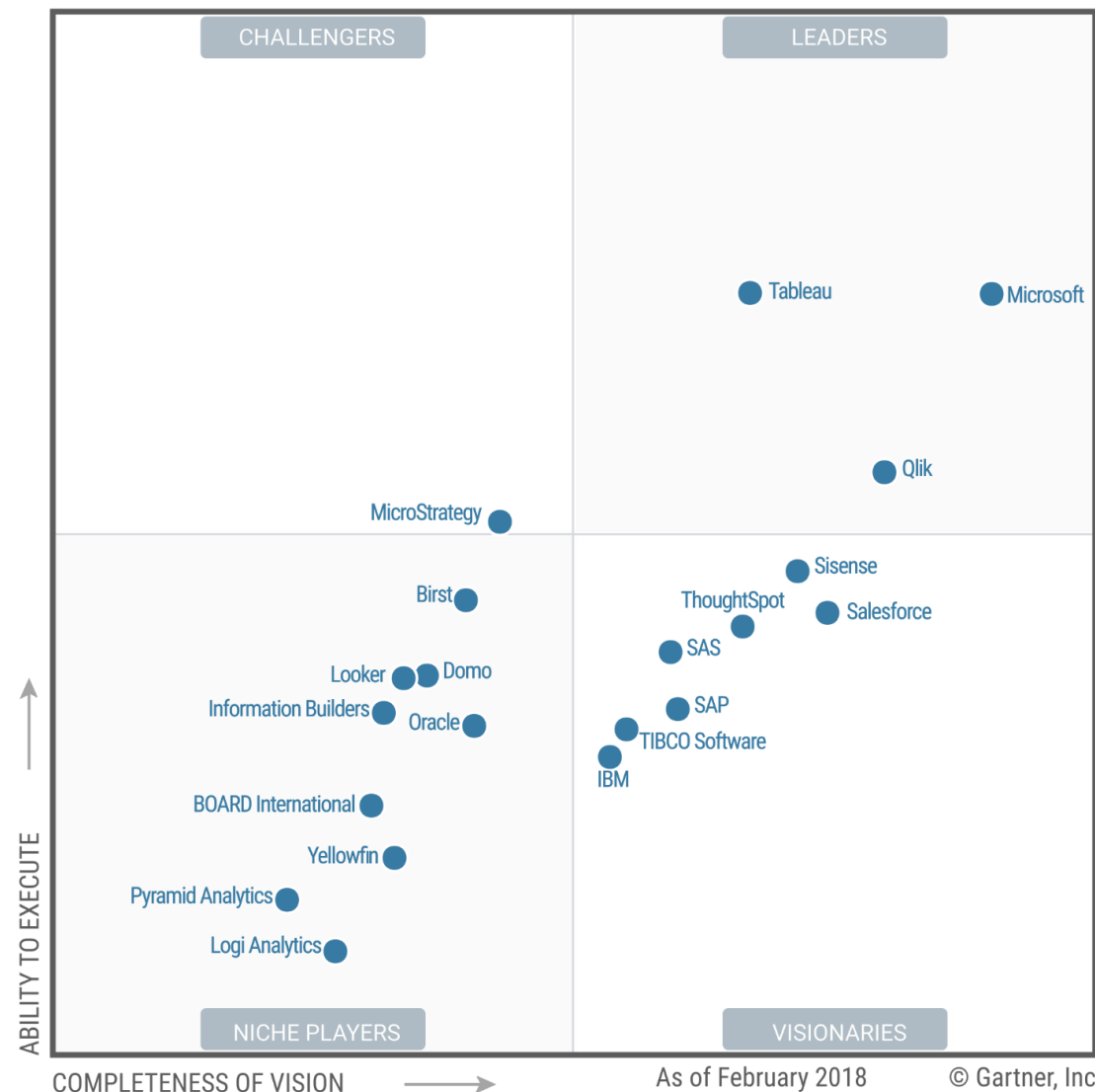


# External BI Tools

# Enterprise BI

- Many organizations have an enterprise BI tool within their reporting landscape, and it is important to establish how CA PPM fits into the reporting solution.
- Gartner magic quadrant BI platforms include:
  - Microsoft PowerBI
  - Tableau
  - Qlik View
- If you are an on-premise implementation you can connect directly to the built-in data warehouse
- If you are a SaaS implementation, you have several options for connecting:
  - Flat file extracts & report directly against files
  - Flat file or API-based extracts loaded into on-premise or cloud database (3<sup>rd</sup> party ETL tools help)
  - OData Connection

*NOTE: Recommended to use Power BI, as OData support in Tableau and Spotfire is limited*



# OData Direct Connection



- As of 15.3, on Demand customers have the ability to use an OData connector to point a BI tool at the CA PPM DWH. This will enable the use for Spotfire, Tableau, PowerBI, QlikView, etc
- The connector will only go against the updated Data Warehouse
- The connector was optimized to work with PowerBI, but can be used with other reporting BI tools – even Microsoft Excel

*NOTE: Recommended to use Power BI, as OData support in Tableau and Spotfire is limited*

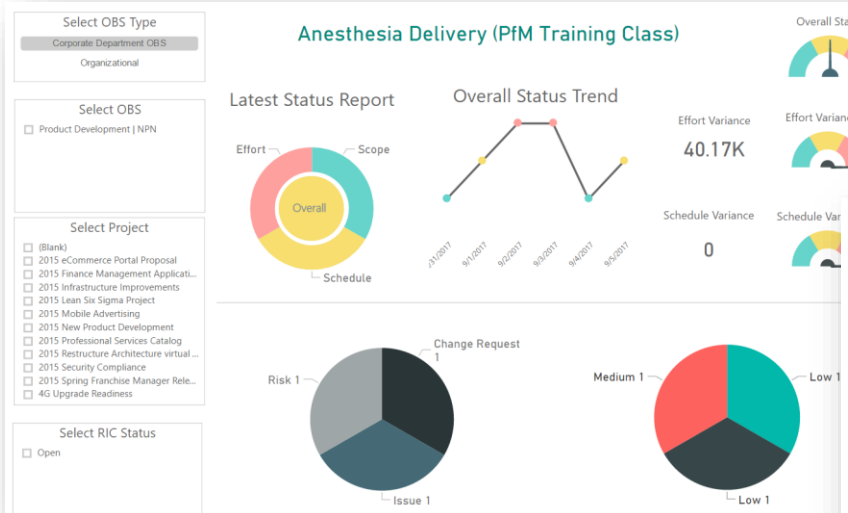
- Row level security possible with custom BI User ID on the CA PPM Resource
- In 15.4, CA added the ability to have individual logins for OData access

# Rego Data Extractor

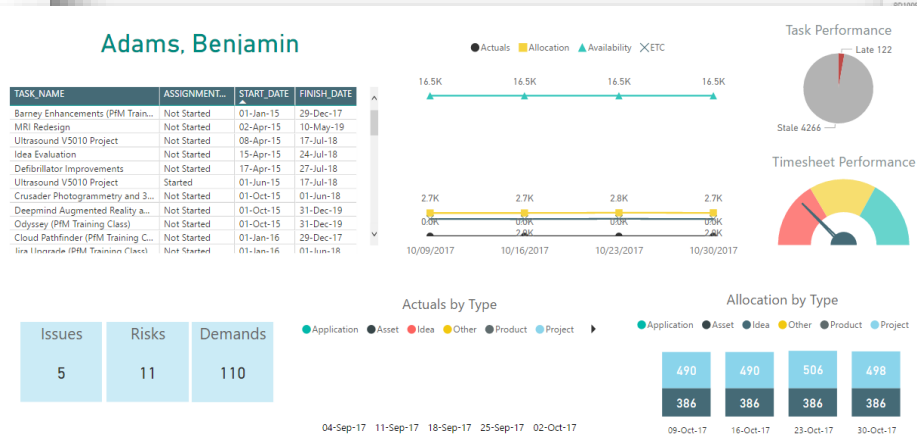
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- Extract data using SQL language
- Create and schedule multiple extractions depending on business need
- Flexible options
  - Batch data for large exports
  - Zip files
  - Custom data and line separators
  - Dynamic filenames with flexible date formatting
  - Flexible distribution of extracts including email and Knowledge Store
- Performance metrics
  - The amount of data extracted
  - Time of extraction
  - Success Failures
- Test cases for extracts up to
  - 40 million records per day
  - 100+ extracts per day

# Real World Example - PowerBI



Investment ID	Investment Name	Risk Name	Investment Manager	Risk ID	Owner	Status	Priority	Target Resolution Date
PN1011	Anesthesia Delivery (Pm Training Class)	Test Risk Objectives	Tennison, Peter	RS1077	Joshi, Navdeep	Open	Medium	Friday, October 23, 2015
PR1016	Automated Security Enhancements	Key Resource not available	Berks, Paul	RS1073	Administrator, System	Open	High	Saturday, October 10, 2015
PR1052	Test-MK	Requirements to be freed on time	Administrator, System	RS1074	Administrator, System	Open	High	Tuesday, October 13, 2015
PR1052	Test-MK	Resource availability	Administrator, System	RS1075	Administrator, System	Open	Medium	Tuesday, October 13, 2015
PR1083	JH Project-Financial Mgmt Overview	Risk 1	Hoaldridge, Jon	RS1082	Hoaldridge, Jon	Open	High	Thursday, February 11, 2016
PR1083	JH Project-Financial Mgmt Overview	Risk 2	Hoaldridge, Jon	RS1083	Hoaldridge, Jon	Closed	Low	Thursday, February 11, 2016
PR1114	Bigfish Automation (Pm Training Class)	may run over allocated budget	Scarlato, Jennifer	RS1084	Calderon, Mindy	Open	High	Friday, June 3, 2016
PR1165	CLR Demo Project	new risk	Rice, Christi	RS1085	Rice, Christi	WIP	Medium	Monday, April 24, 2017
PR51000	A Fantastic Project (Pm Training Class)	High Risk Sample	Flanagan, Christopher	RS1080	Administrator, System	Open	High	Tuesday, November 10, 2015
PR51000	A Fantastic Project (Pm Training Class)	Low Risk Sample	Flanagan, Christopher	RS1078	Administrator, System	Open	Low	Tuesday, November 10, 2015



Investment ID	Issue ID	Issue Name	Target Resolution Date	Probability	Priority
PR1052	IS1089	Requirements to be freed on time		Low	Low
PN1011	IS1090	Test Issue Objectives from Risk	23-Oct-15		Low
PR1083	IS1091	Risk 1 to Issue 1	11-Feb-16		High
PR1084	IS1092	a spodgajidj	27-Apr-16		Low
PR1165	IS1094	new issue from the risk	24-Apr-17		Medium

Investment ID	Risk ID	Risk Name	Target Resolution Date	Probability	Priority
PR1016	RS1073	Key Resource not available	10-Oct-15	Low	High
PR1052	RS1074	Requirements to be freed on time	13-Oct-15	Medium	High
PR1052	RS1075	Resource availability	13-Oct-15	High	Medium
PN1011	RS1077	Test Risk Objectives	23-Oct-15	High	Medium
PR51000	RS1078	Low Risk Sample	10-Nov-15	Low	Low
PR51000	RS1079	Medium Risk Sample	10-Nov-15	Medium	Medium
PR51000	RS1080	High Risk Sample	10-Nov-15	High	High
PR1083	RS1082	Risk 1	11-Feb-16	Medium	High

**Late Milestones**

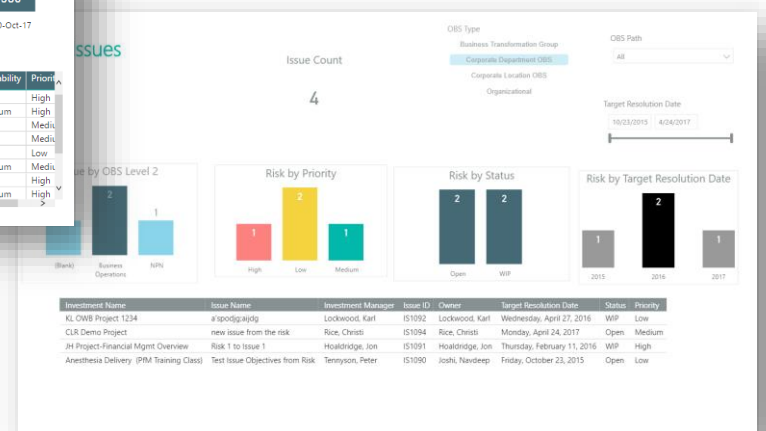
OBS Type: Corporate Department OBS

OBS Path: All

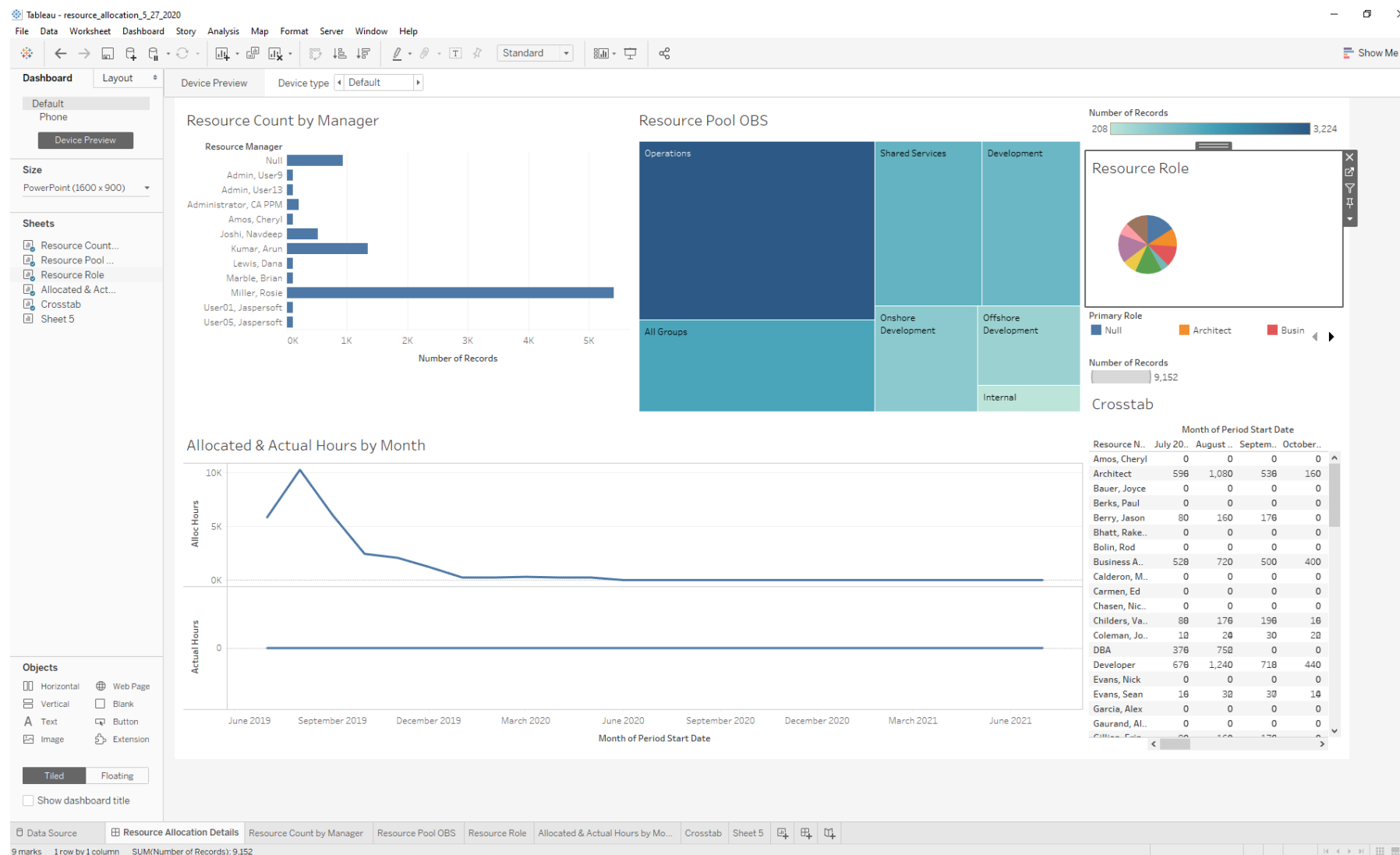
Investment Manager: All

Investment Name: All

Investment ID	Investment Name	Milestone Name	Investment Manager	Status	Start Date	End Date	Open Date	Days Left
PR51000	A Fantastic Project (Pm Tr...	Analyze Phase Complete	Flanagan, Christopher	Not Started	Monday, April 20, 2015	Friday, May 8, 2015		819
PR1012	Atropia Retina Scan - Proje...	Business Case Complete and Go to Development	Miles, Paul	Not Started	Monday, April 13, 2015	Monday, April 13, 2015		844
PR1002	Aurascopie XA - Project	Business Case Complete and Go to Development	Miles, Paul	Not Started	Monday, August 10, 2015	Monday, August 10, 2015		723
PR1003	Brightlight 3000 - Project	Business Case Complete and Go to Development	Miles, Paul	Not Started	Friday, October 9, 2015	Friday, October 9, 2015		665
	Diagnostic ECG - Project	Business Case Complete and Go to Development	Angelo, Michael	Not Started	Thursday, September 10, 2015	Thursday, September 10, 2015		694
	Echo Cardiography 3000 - ...	Business Case Complete and Go to Development	Angelo, Michael	Not Started	Thursday, September 10, 2015	Thursday, September 10, 2015		694
	Fluorescein Imaging 1000 - ...	Business Case Complete and Go to Development	Angelo, Michael	Not Started	Tuesday, August 11, 2015	Tuesday, August 11, 2015		724
	Milegela 4000 - Project	Business Case Complete and Go to Development	Angelo, Michael	Not Started	Tuesday, August 11, 2015	Tuesday, August 11, 2015		724
	Molecular Imaging 4000 - ...	Business Case Complete and Go to Development	Angelo, Michael	Not Started	Tuesday, August 11, 2015	Tuesday, August 11, 2015		724
	Molecular Imaging 4000 - ...	Business Case Complete and Go to Development	Nunes, Angie	Not Started	Tuesday, August 11, 2015	Tuesday, August 11, 2015		724
	MFI 3000 - Project	Business Case Complete and Go to Development	Tennison, Peter	Not Started	Tuesday, August 11, 2015	Tuesday, August 11, 2015		724
	Nuclear Cardiology 2200 - ...	Business Case Complete and Go to Development	Angelo, Michael	Not Started	Tuesday, August 11, 2015	Tuesday, August 11, 2015		724
	PET 4x - Project	Business Case Complete and Go to Development	Craig, Allen	Not Started	Tuesday, June 9, 2015	Tuesday, June 9, 2015		787
	Terima XT - Project	Business Case Complete and Go to Development	Miles, Paul	Not Started	Tuesday, August 11, 2015	Tuesday, August 11, 2015		724
	Ultrasound V4000 - Project	Business Case Complete and Go to Development	Angelo, Michael	Not Started	Tuesday, August 11, 2015	Tuesday, August 11, 2015		724
	Ultrasonix 2000 - Project	Business Case Complete and Go to Development	Craig, Allen	Not Started	Monday, November 9, 2015	Monday, November 9, 2015		434
	2015 eCommerce Portal Pr...	Closing Phase Gate Complete	Arya, Vishal	Not Started	Friday, February 19, 2016	Friday, February 19, 2016		532
	4G Upgrade Readiness	Closing Phase Gate Complete	Reed, Harry	Not Started	Tuesday, September 15, 2015	Tuesday, September 15, 2015		689
	Automated Security Enhanc...	Closing Phase Gate Complete	Berks, Paul	Not Started	Thursday, September 17, 2015	Thursday, September 17, 2015		687



# Real World Example - Tableau





# Best Practice Recommendations



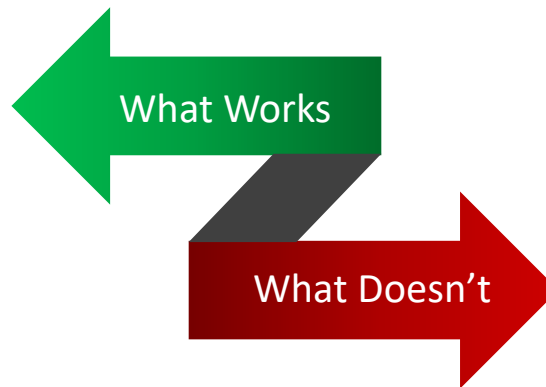
# Diverse Strategy

**In most cases, the reality is not a single reporting solution, but a mix of tools**

- Case 1 (SaaS, 1,000 Users)
  - Portlets – data governance & exception reporting
  - Jaspersoft Ad-Hoc – end user ad-hoc requests, semi-“standard”
  - Enterprise BI (Tableau) – Standard reports / dashboards
- Case 2 (SaaS, 200 Users)
  - Mostly OOTB or RegoXchange portlets and Jaspersoft reports
  - Set of executive-level PowerBI dashboards using OData connection
- Case 3 (On-Prem, 5,000 Users)
  - Built on on-premise DWH. Data extracted from CA PPM, VersionOne, JIRA, ServiceNow, etc.
  - Instead of integrating tools, combined on the reporting side
  - Not a single enterprise BI tool, but tool agnostic – PowerBI, Excel, Cognos all pointing to the same DWH

# Best Practices

- With any report, identify the top question(s) that the report should answer
- Use the right report technology for the job (Portlets, Jaspersoft, Enterprise, etc..)
- Converting excel reports that are already operationalized and moving them into the tool can gain big benefits
- Automation of report delivery
- Having leadership adopt the tool and utilize the tool's dashboards (eventually moving away from "receiving" dashboards to "using" dashboards)
- Ensure that the reports are designed for 'Easy Reading'
- Ensure the data definition of data is the uniform for all reports



- Having people go into the tool to pull out extracts and fish for the data
- Developing reports that have too many data columns, which can cause the report to lose its purpose
- Having scenarios where the user is taking a report from the system, copying and pasting parts of it into a ppt/excel, and generating another report outside of the tool
- Creating different versions of the same report for different business units. This should be handled with thoughtful filters
- Creating reports with data that is inconsistent with other systems, and not having a clear understanding of ownership of data

# Questions?



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- Class Name = **regoUniversity**
- Course Number = **Session Number**
- Date Started = **Today's Date**
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