



# DOMO PALOOZA

2019

# Empowering 2,400 Employees with Visual Management

Our company's journey to data literacy

**Balfour Beatty**



**Bevan Mace**

VP, National Operations &  
Lean



**Haley Smith**

Business Development  
Director

**Balfour Beatty**

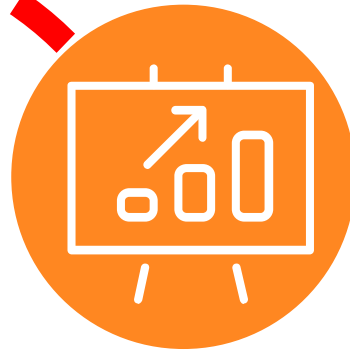
DOMOPALOOZA

# How do you spend your time?



**Process**

**Producing**



**Outcomes**

**Reporting**



**Consequences**

**Firefighting**

# Learning Objectives

- ✓ What we learned along our journey
- ✓ How we transformed 'reporting'
- ✓ How you could advance your own journey



# is a leading international infrastructure

Our US business designs and constructs civils and buildings projects that enhance how people live, work, learn and play in our communities.

## Top Market Sectors:

Corporate Office

Education

Healthcare

Hospitality

Multifamily

Transportation

**# 6 Domestic Builder** (ENR 2018)

**# 9 Top Contractors** (Building Design + Construction 2017)





# WE ARE RELENTLESS ALLIES

PEOPLE-FIRST

CLIENT EXPERIENCE

ZERO HARM

# Our Journey...

**CENTEX**  
CONSTRUCTION



**Balfour Beatty**

**Frank J. Rooney  
Construction Co.**

**Eugene Simpson &  
Brother Inc.**



1885

1966

1979-1987

2007

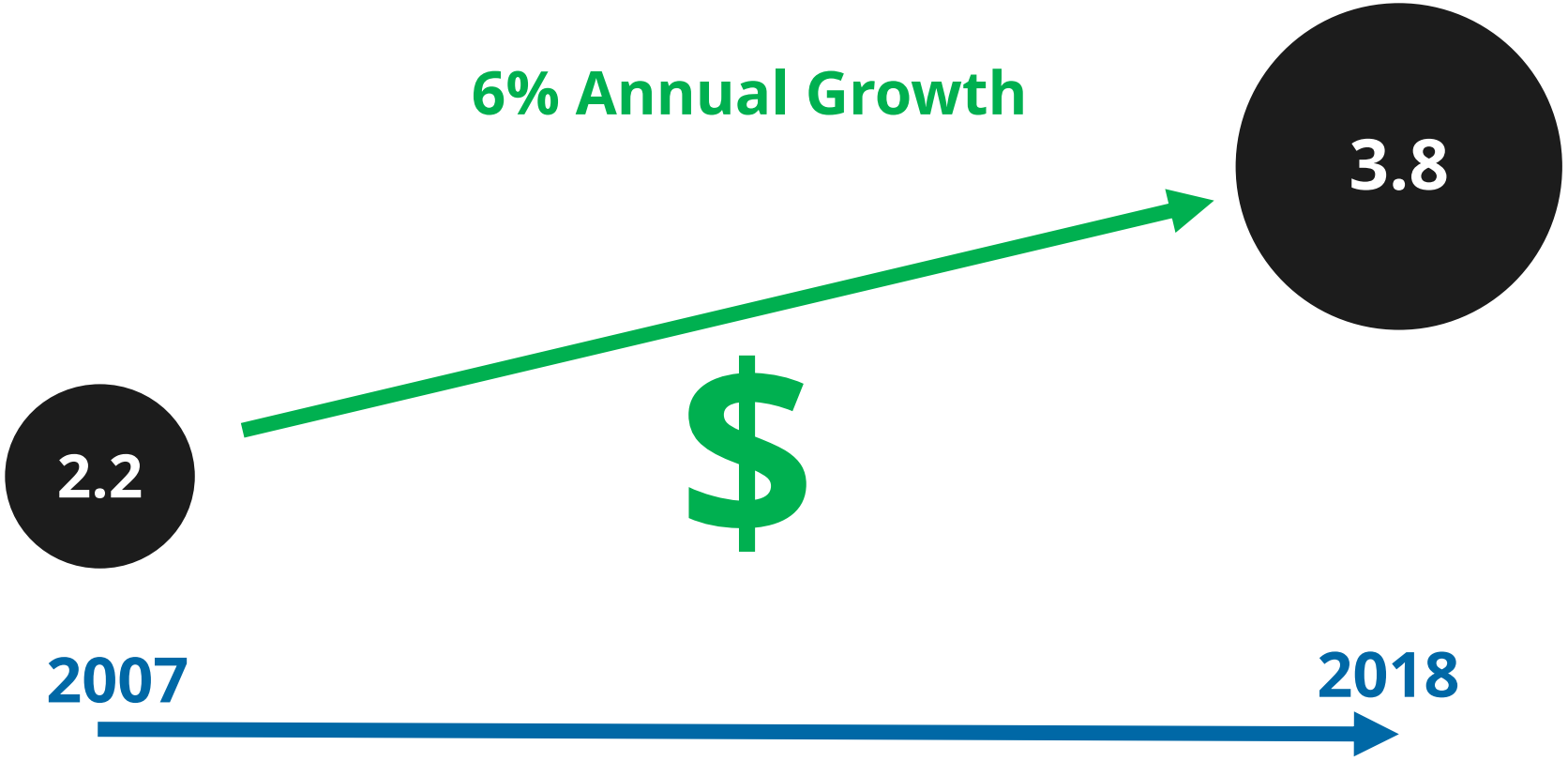
2009-2011



# Our Journey...

## Revenue

6% Annual Growth



# Our Journey...

# Recordable Injury Rate

5% Annual Reduction

INDUSTRY AVERAGE

3

2

1

TARGET

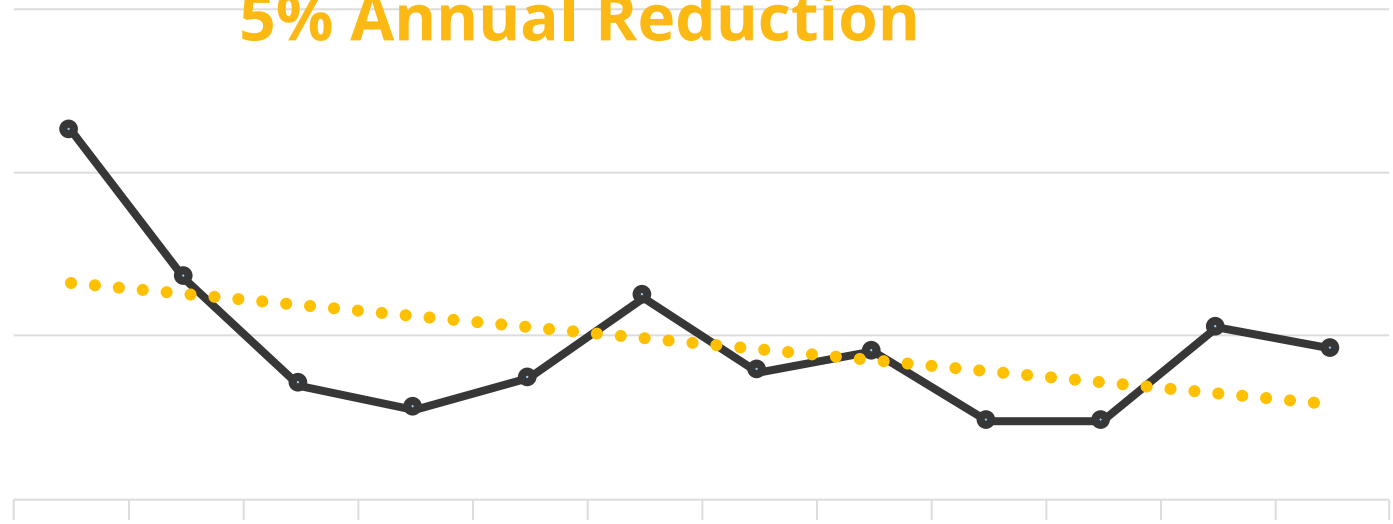
0

2007

2018

**ZEROHARM**  
MAKE SAFETY PERSONAL

DOMOPALOOZA



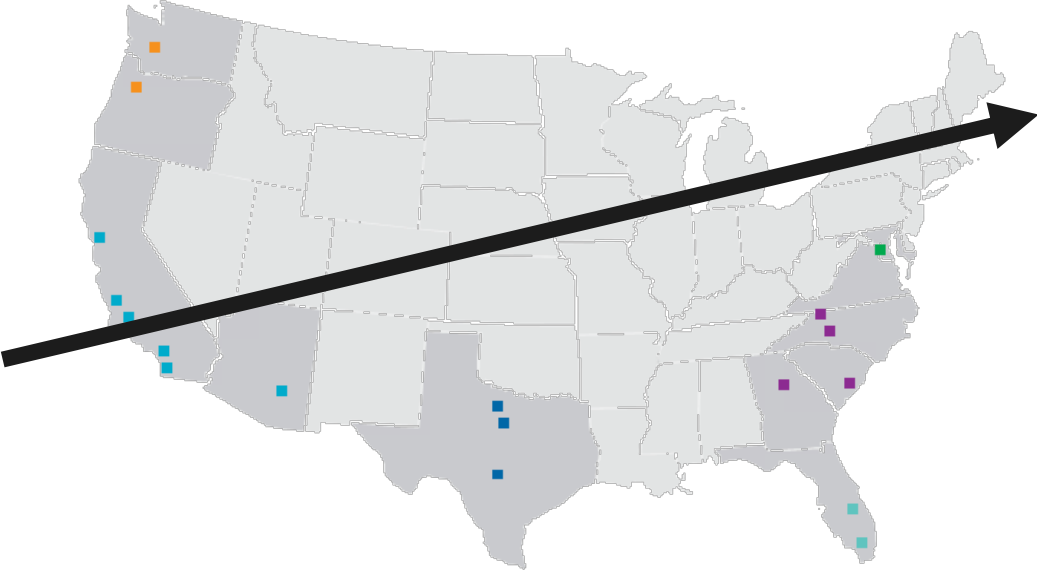
# Our Journey...

# # Offices

16% Annual Growth

6

2007



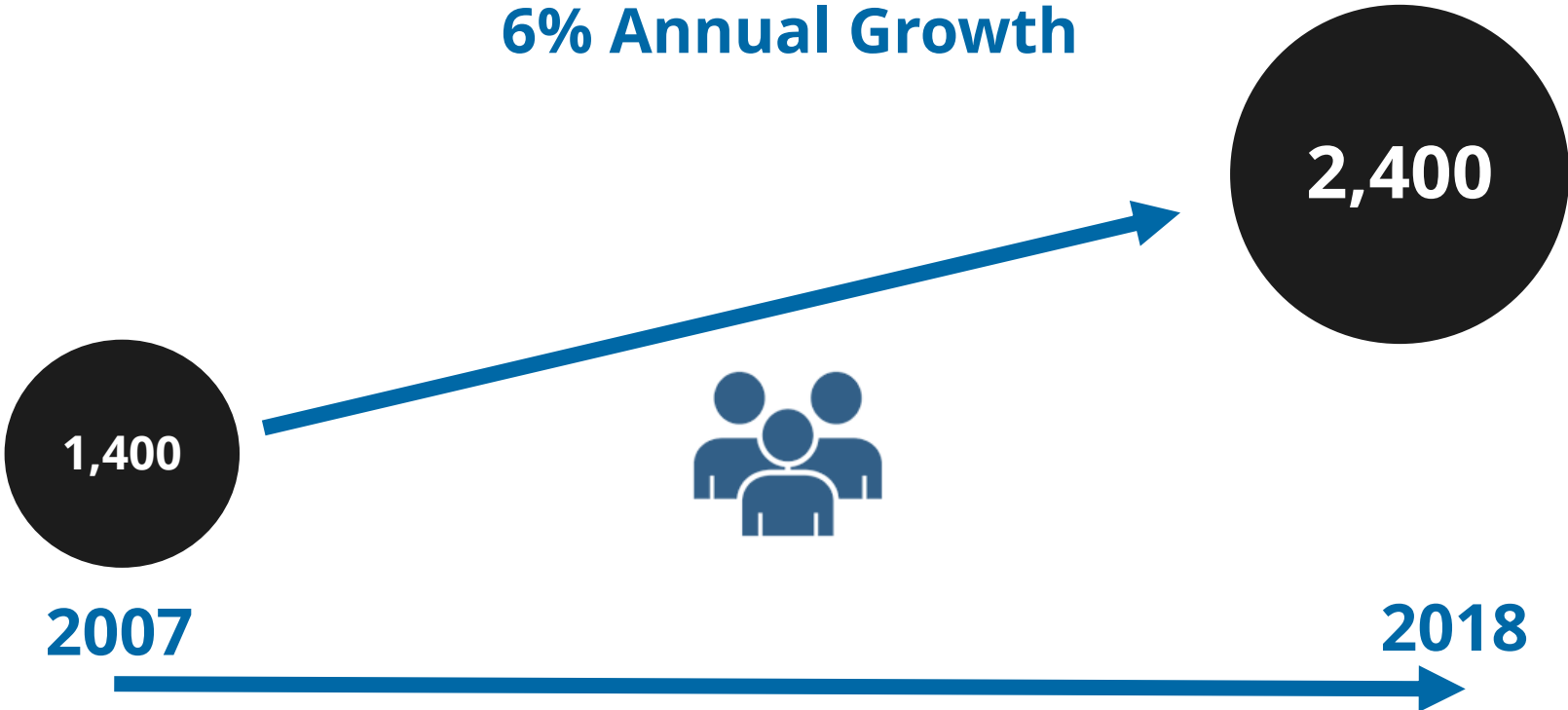
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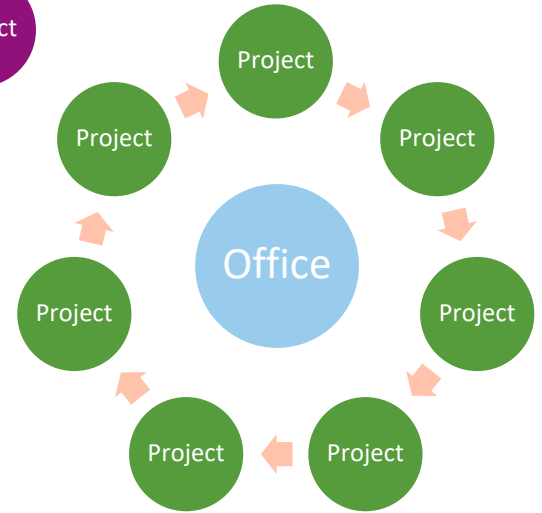
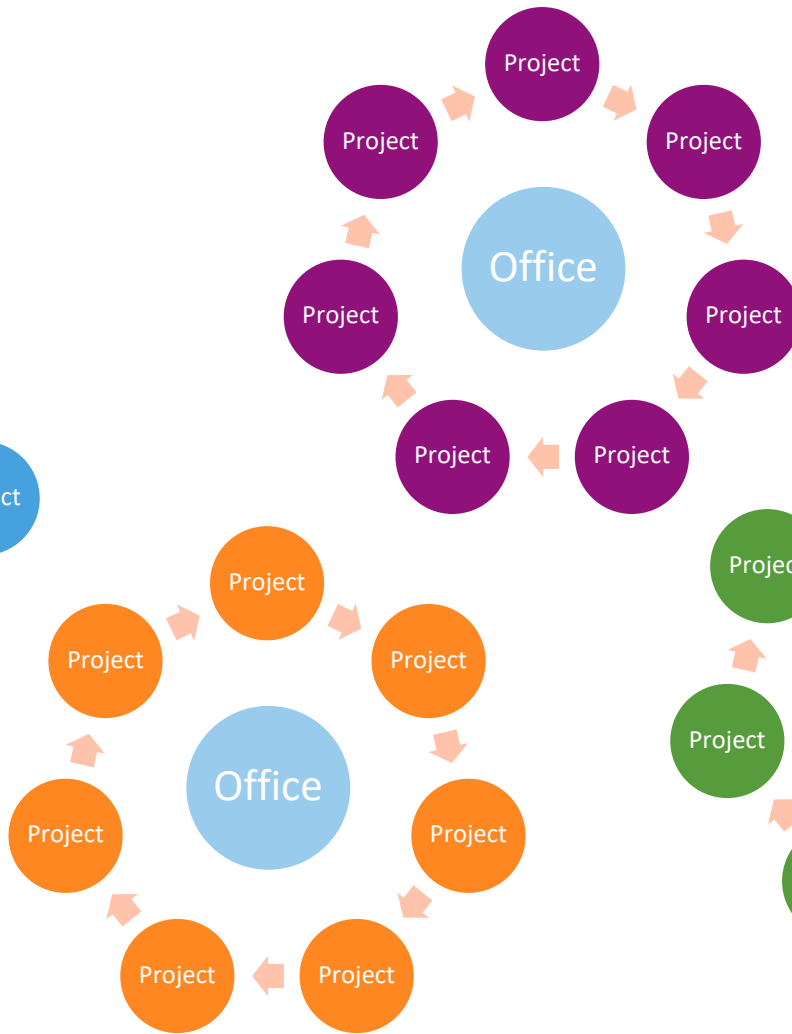
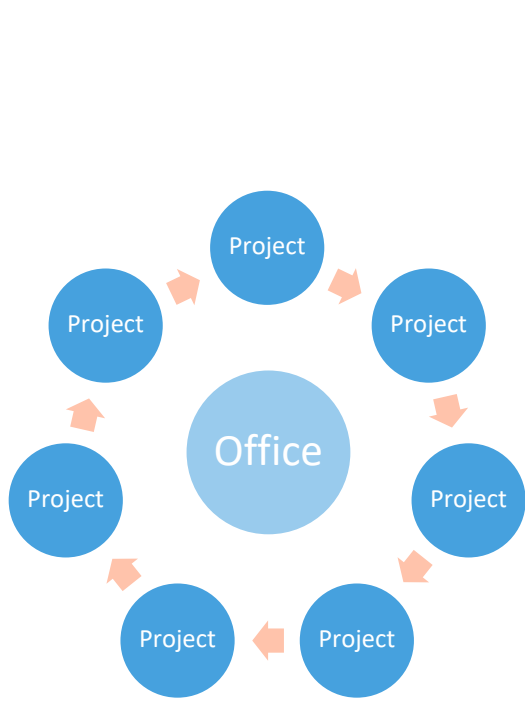
2018

# Our Journey...

## # Employees

6% Annual Growth



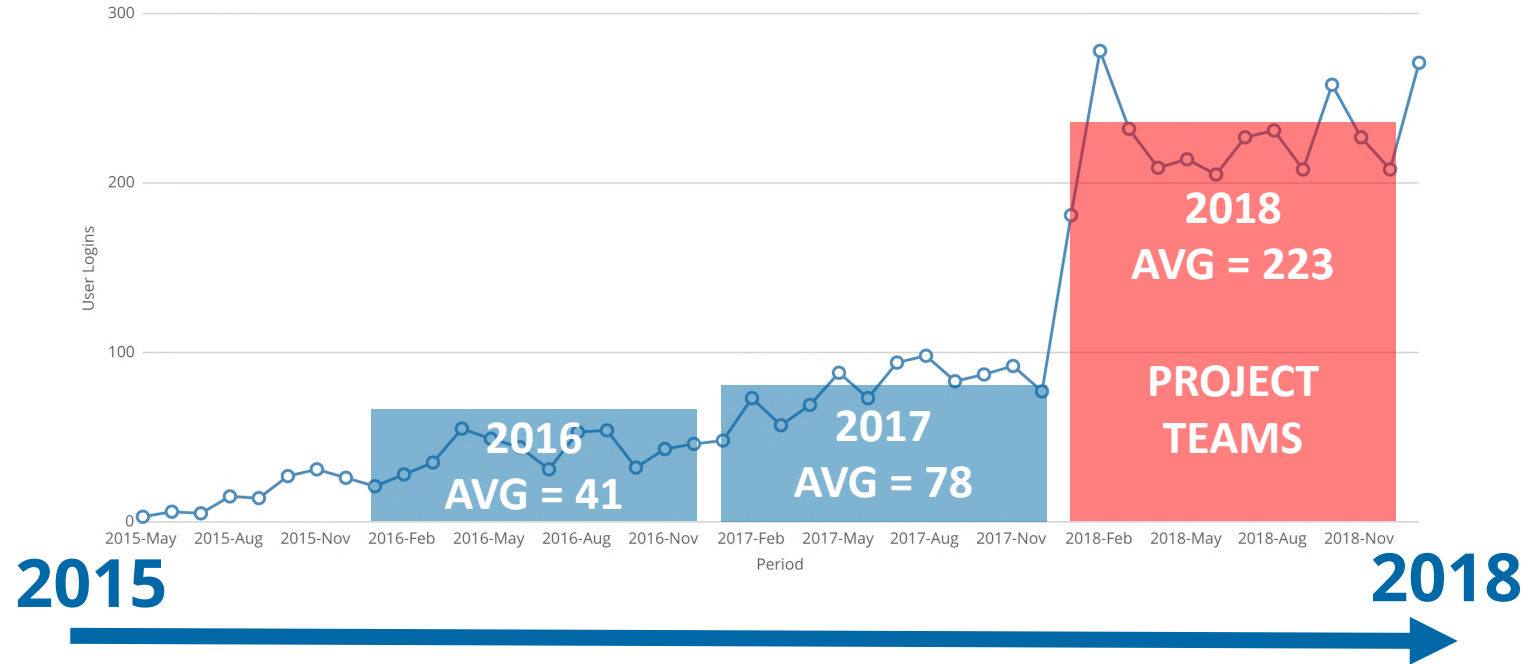




# Our Journey...

# # DOMO Users

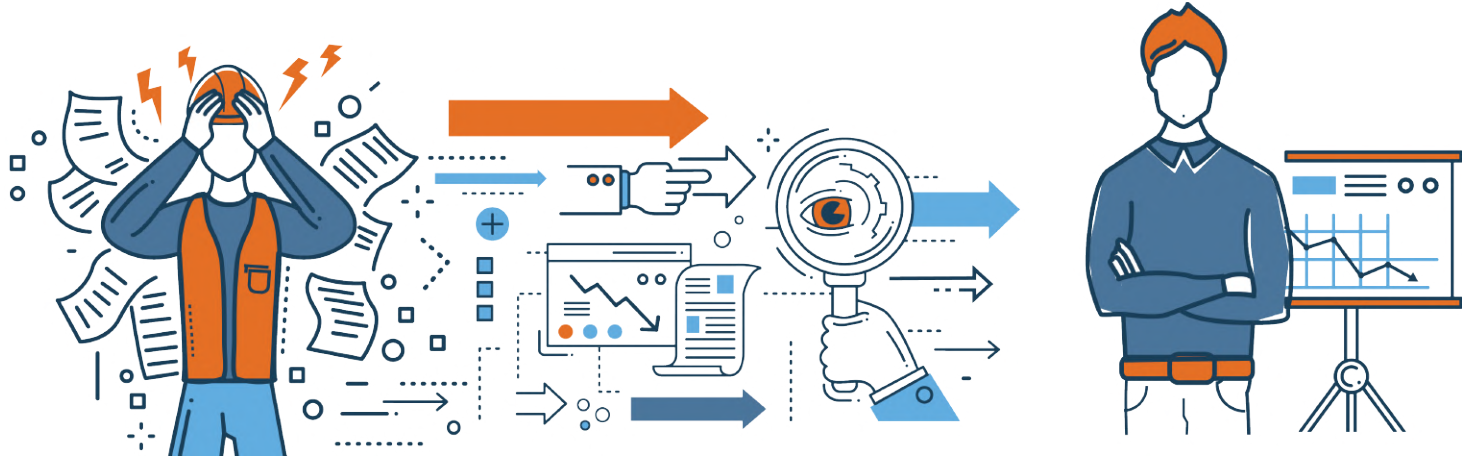
## 150% Annual Growth



2015

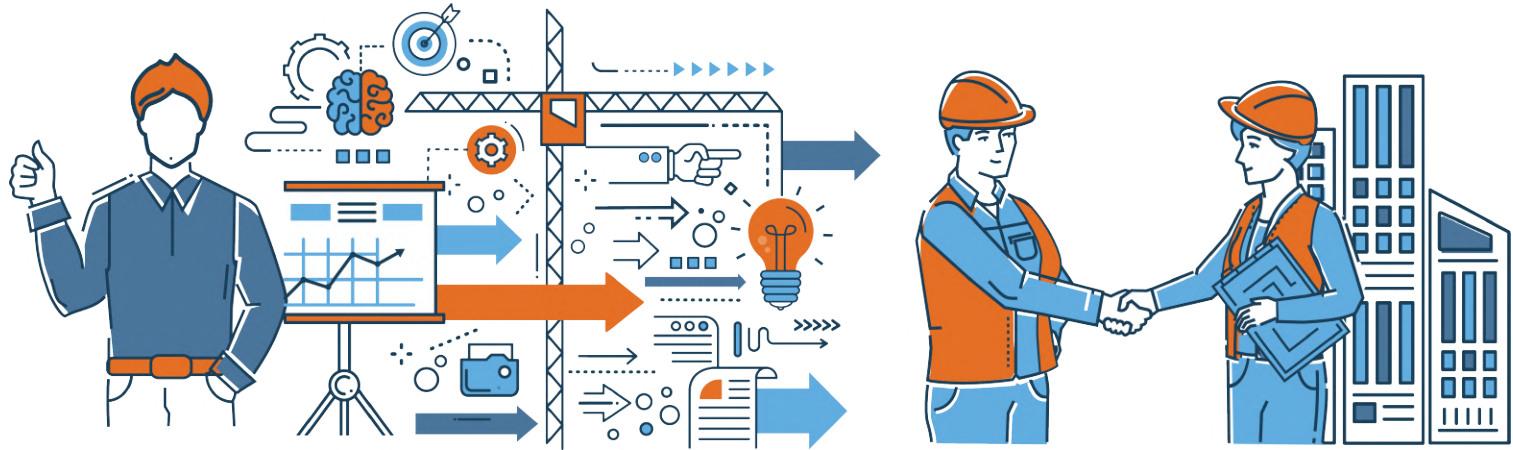
2018

# Key enablers: Culture/ Leader Behaviors



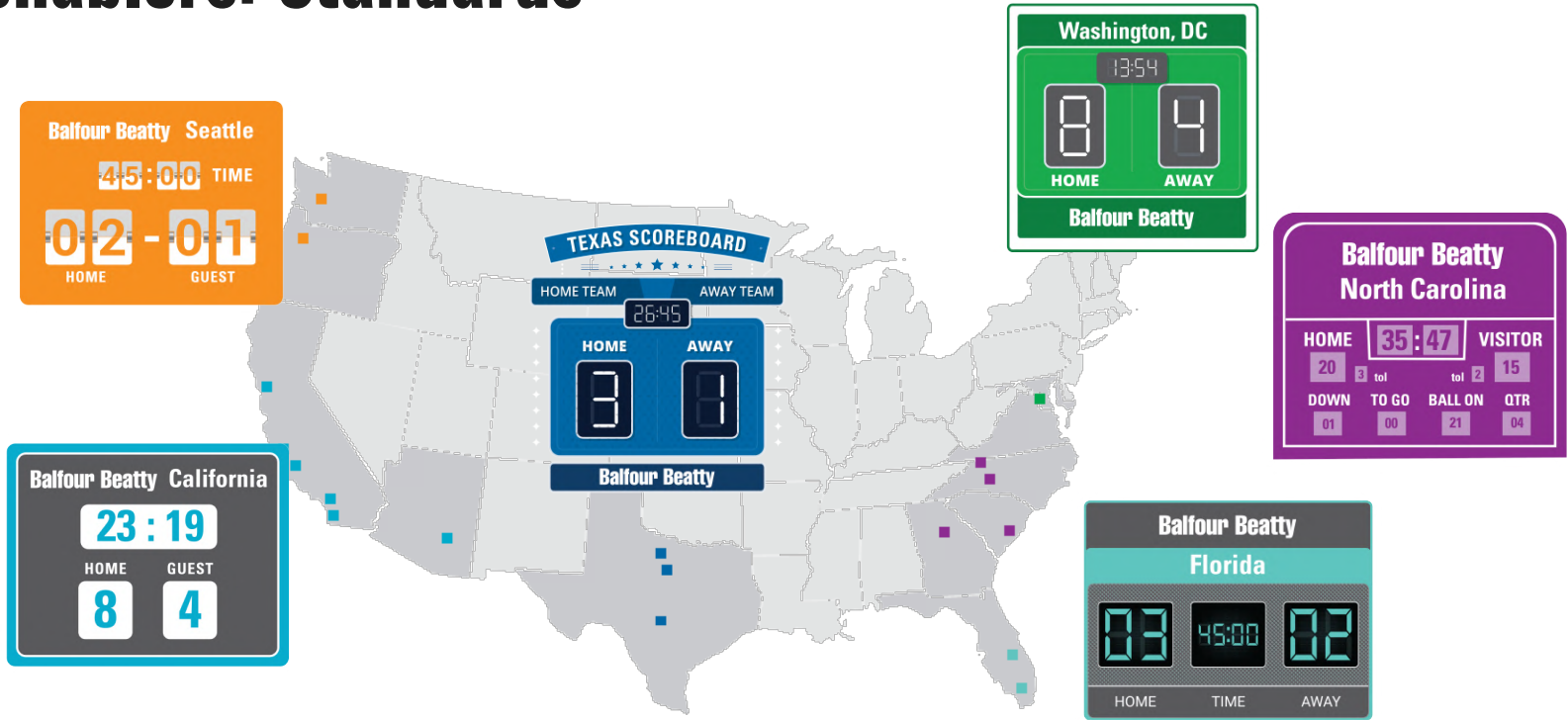
**Before: Reporting info up to leaders to act**

# Key enablers: Culture/ Leader Behaviors



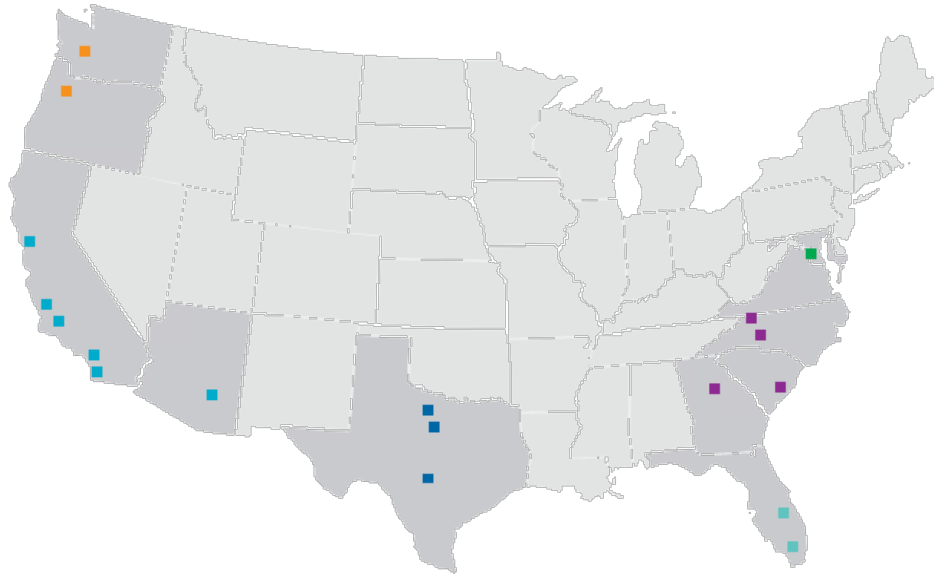
**After: Empowering front lines to act**

# Key enablers: Standards



Before: **Varying expectations and accountability**

# Key enablers: Standards

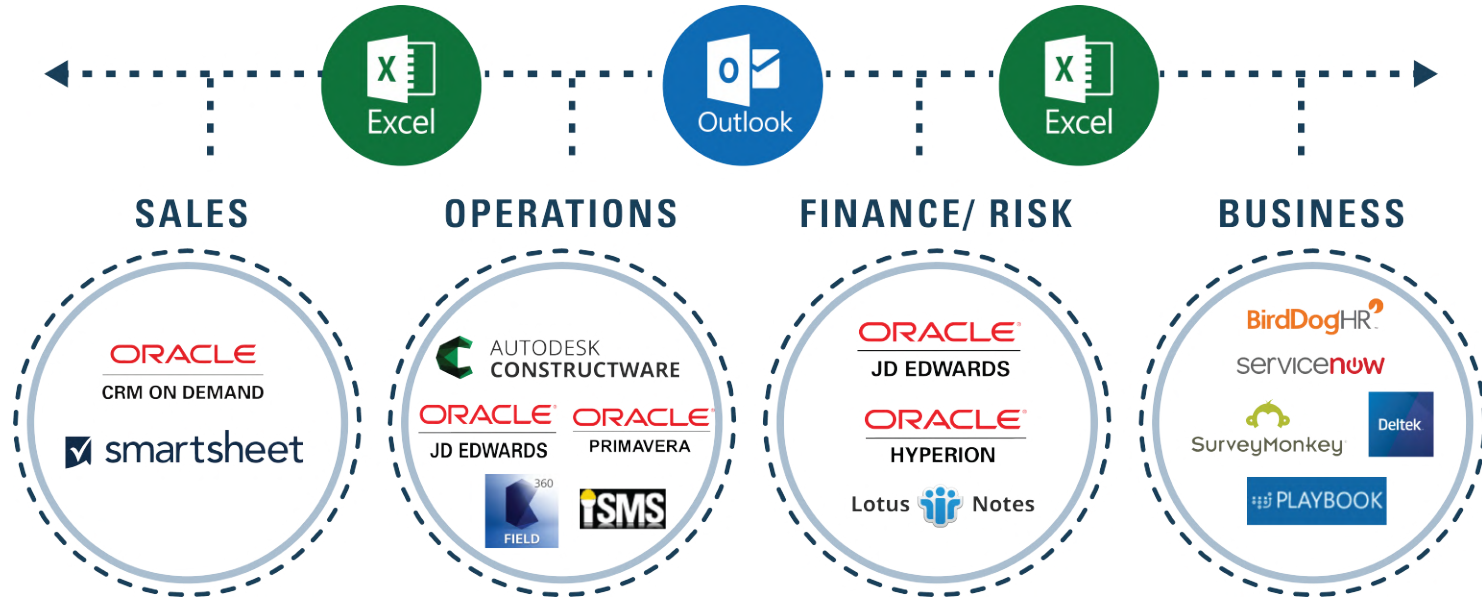


Balfour Beatty National Scoreboard				
TIME	LOCATION	HOME	GUEST	BONUS
30:05	SEATTLE	08	03	02
15:44	PORTLAND	15	05	00
22:11	SAN DIEGO	06	04	01
18:30	SAN FRANCISCO	14	09	00
10:06	AUSTIN	12	08	00
06:03	DALLAS	08	04	04
50:14	FORT WORTH	06	02	00
42:25	PHOENIX	17	12	01
09:48	RALEIGH	09	08	04
28:07	WASHINGTON DC	12	07	02
40:02	CHARLOTTE	06	04	01
38:12	ATLANTA	08	02	00
15:25	ORLANDO	18	10	02
29:04	FORT LAUDERDALE	15	04	00

After: **Simply and consistently keep score**

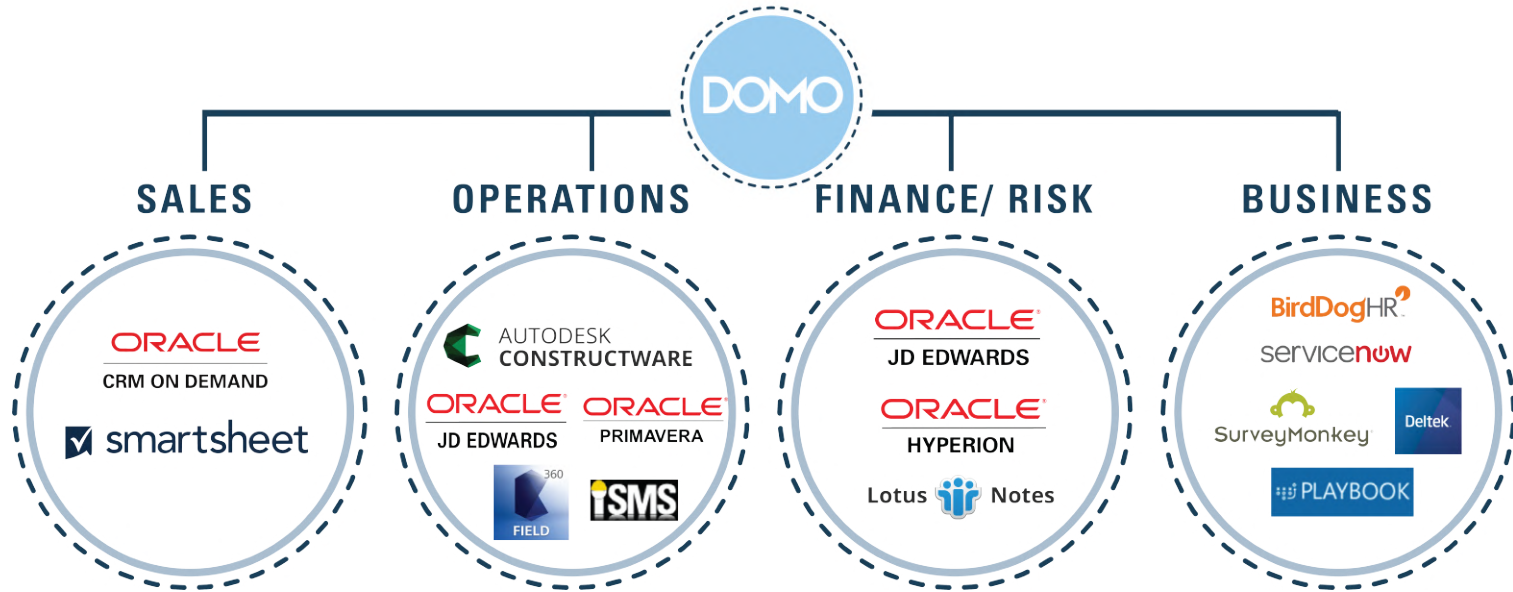


# Key enablers: Data Architecture



**Before: Siloed and manual data transfer**

# Key enablers: Data Architecture

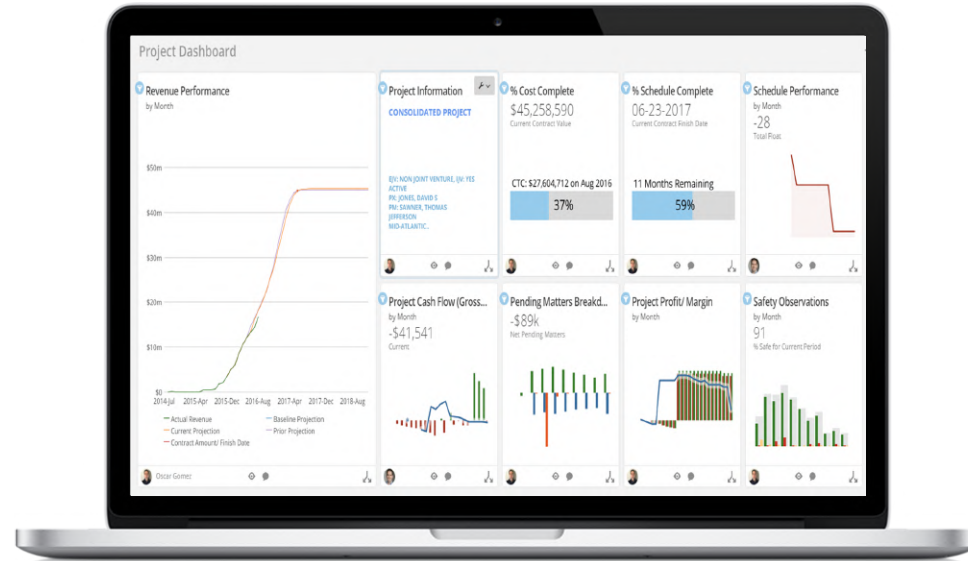


After: **Integrated and automated data**

# 2016: Getting Started

# Project Dashboard (Leader)

- 'At-a-glance' project health
- Automate information flow
- Prompt better dialog
- Identify issues/ risks earlier



*Sample data for demonstration purposes only*

# Sales Reporting

Preferred Bidder Last 7 Days  
(Opportunity wins last 7 days)

Owner Delivery Unit	Sales Lead	Opportunity Name	Account Name	Category	Project Value	Submission Margin % (Financial Projection Fee %)	Stretch Margin Value	Primary Contract Award Date	Max Negative Cash Amount	# Weeks Negative Cash	Duration (Months)	Stretch Margin %	Contract Award Value	
Georgia	Vince Price	Georgia Institute of Technology - Task Order 2017 - TCI - Cherry Emerson CW Piping Replacement	Georgia Institute of Technology	Task	381,820	7.50	28,844	3/30/2017	20,000	8	3	7.50	381,926	
Georgia	Vince Price	Georgia Institute of Technology - Task Order 2017 - TO15 - Love Shorefront Repairs	Georgia Institute of Technology	Task	411,815	7.50	30,886	3/30/2017	28,500	8	3	7.50	411,815	
Northwest	John Hear	CONFIDENTIAL - PDX-1 Fire Water - Client Ruby	Client Ruby	Task	1,397,021	4.08	56,998	4/4/2017	6,444	8	5	4.08	1,397,021	
Northwest	Jeffrey Longacre	Davis Wright Tremain Law Offices TL - Madison Centre	Davis Wright Tremain LLP	Standard	17,000,000	3.76	639,200	4/5/2017	54,197	8	10	3.76	17,000,000	
Northwest	Josh Condon	PeaceHealth Broadway A Child's Place	PeaceHealth	Task	224,594	4.43	9,950	4/30/2017	11,996	8	2	4.43	224,594	
<b>Grand Total</b>													<b>4.43</b>	<b>39,215,356</b>

Tender Submitted Last 7 Days  
(Opportunities submitted last 7 days)

Owner Delivery Unit	Sales Lead	Project Manager	Gate 3 Approved By	Opportunity Name	Account Name	Category	QQ Flag	Max Cash Amount	# Weeks Negative Cash	Duration (Months)	Submission Margin % (Financial Projection Fee %)	Stretch Margin %	Contract Award Value
California	David Christensen	John Siquiera Jr.	Capil Brian	Irvine Unified School District E.S. Modernization (\$16.3M)	Irvine Unified School District (USD)	Standard	good	11,131	7	14	34.95	34.90	1,548,801
California	David Christensen	Danny Valderama	Capil Brian	Springbrook & Westpark E.S. Modernization (\$15.0M)	Irvine Unified School District (USD)	Standard	good	14,844	7	27	33.76	33.70	2,432,862
California	Emily Kay	TBD		CCUSD - Summer 2017 Projects	Culver City Unified School District (CCUSD)	Task	good	0	0	0	0.00	0.00	1,800,000
Florida	Kent Long	Mike Carlin		Encore   The Rise at Flagler Village	Encore Capital Management	Standard	good	0	0	24	0.00	4.40	71,000,000

Manual, Static, Siloed

The dashboard displays the following sections:

- Orders Won (Contracted) ...**: \$0.00 (Sum of BBC Value)
- Preferred Bidder (Awards) ...**: \$144.63M (Sum of BBC Value)
- Lost Tender Last 7 Days**: \$139.03M (Sum of BBC Value)
- What's due to close next ...**: \$730.67M (Sum of BBC Value)
- 7 Day Orders Won Headl...**: \$0.00 (Sum of BBC Value)
- What's due to close next 30 days?**: \$1.22B (Sum of BBC Value)
- Tenders Backlog**: \$4.54B (Sum of BBC Value)
- Expected Contract Date Past**: \$390.58M (Sum of BBC Value)

Summary of Tenders Backlog:

Division	Count	BBC Value
CALIFORNIA	22	368,607,281.00
CAROLINAS	16	533,488,422.00
FLORIDA	9	1,274,566,936.00
GEORGIA	5	219,254,000.00
MID-ATLANTIC	5	384,088,783.00
NORTHWEST	7	973,443,698.00
TEXAS	16	787,003,632.00

Automatic, Real-time, Global

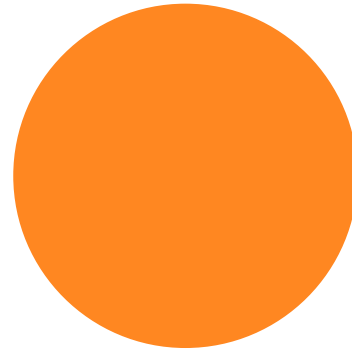
Sample data for demonstration purposes only



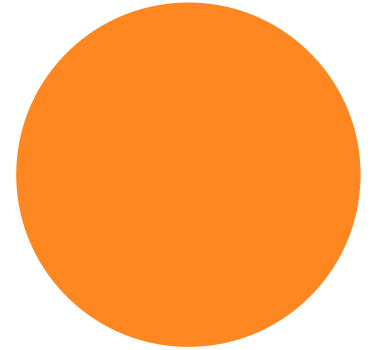
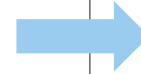
# How did we use our time differently?



**Process**



**Outcomes**

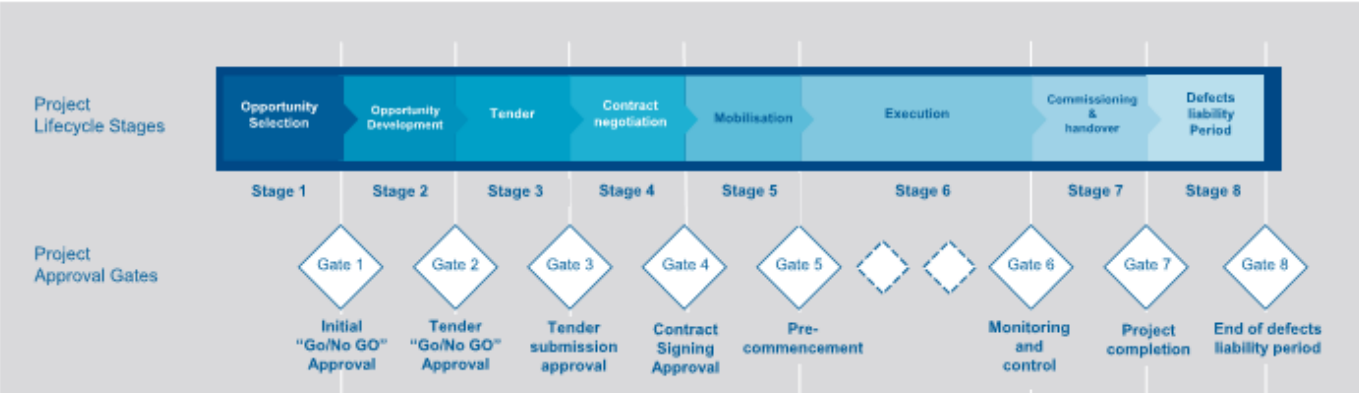


**Consequences**

**Improving**

# 2017: Getting Comfortable

# Value Stream & Standard Work



## Operational Excellence Top 10 Success Factors

Balfour Beatty

- Zero Harm
- Communication & Information Flow
- Issue Resolution
- Cost & Cash Strategy
- Quality & Compliance
- Planning
- Risk Management
- Learning & Innovation
- Team Health & Performance
- Client/ Customer Expectations

# Streamlining Processes with DOMO

File National BA Gated Tracker Report - California

Grid View Report Builder

	Opportunity / Project Name	Gate Category	Contract Value	Percent Comple...	Stretch Profit	Gates Pass...	Gate 1 Approval Date	Gate 1 Approval By	Gate 2 Approval Date	Gate 2 Approval By	Gate 3 Approval Date	Gate 3 Approval By	Gate - Appro Date
13	Chino HS Recon Ph 1&2 Precon		\$747,150			1							08/21
14	CM Services for Hermosa Beach City SD Mod & New Construction projects (59M)	Task - Pool/Prequ	TBD			1	07/26/16	N/A (Task)					
15	Colton High School Stadium Modernization	Standard	\$10,000,000			1	03/27/17	DP					
16	COSD CTRL JAIL ELEVATOR MOD		\$114,555			1							12/03
17	County of Santa Clara Main Jail East	Complex	\$220,000,000			1	12/02/16	CEO					
18	County of SD Vista Detention		\$97,578			1							08/15
19	CVESD - New Eastern Urban Center Millennia ES	Task \$2 million +	\$2,700,000	36.0%		1	11/09/15	N/A (Task)					
20	CVESD Sunnyside ES Mod		\$1,458,279			1							12/02
21	Dos Lagos - 3102 Main St Apts	Standard	\$12,000,000			1	08/29/16	BUL/V P Ops					
22	DSUSD Kennedy ES		\$1,527,080			1							08/09
23	DSUSD Kennedy ES Modernization		\$1,527,080			1							08/09
24	Hotel Indigo (Riverside, CA)	Standard	\$20,000,000			1	08/29/16	BUL/V P Ops					
25	IUSD Construction Management Services (Pool Selection)	Task - Pool/Prequ	\$0			1	09/26/16	N/A (Task)					

## CRM + SmartSheet

Two points of data entry

Gated Stages 1-4 Mar 17, 2012 - Jan 25, 2019

Filters (1)  
Division is CALIFORNIA

77 Number of Opportunities

Links	Opportunity Name	Owner Account	BBC Value	Base Profit %	Stretch Profit %	Sales Stage	OO Scores (Colored)	Pursuit Leader	Gate 1 Approved	Is Gate 2 Approved	Is Gate 3 Approved
CRM   Egrity	Adelanto Correctional Facility Expansion	GEO Care, Inc.	100,000,000	7.16	7.16	Stage 2 - Develop	90/10/10	Justin Maletic	Yes	No	No
CRM	Sweetwater New Middle School (MS #12)	Sweetwater Union High School District	65,000,000	0.00	3.50	Stage 2 - Develop	70/10/20	Justin Maletic	Yes	No	No
CRM	MiraCosta (MCC) Allied Health + Gym + Surface Parking with Solar	MiraCosta College	60,000,000	4.50	4.50	Stage 2 - Develop	91/23/20	Anton Greenville	Yes	No	No
CRM   Egrity	Grossmont College Arts and Communications Complex Phase 2	Grossmont-Cuyamaca Community College District	60,000,000	3.45	3.75	Stage 2 - Develop	75/8/10	Anton Greenville	Yes	No	No
CRM   Egrity	COSD Southeastern Live Well Center	County Of San Diego	58,000,000	5.50	5.50	Stage 2 - Develop	86/61/20	Kyle Frandsen	Yes	No	No

## CRM → DOMO

Single point of data entry

Sample data for demonstration purposes only

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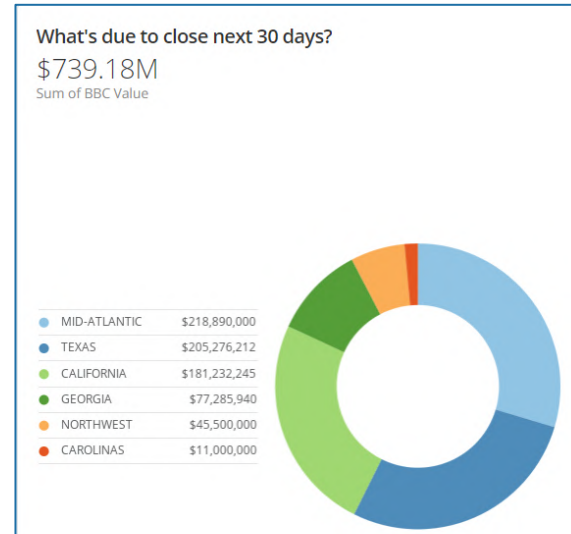
# Same Information, Different Outputs

Deals over \$150 Million

19  
Number of Opportunities

Links	Opportunity Name	Owner Account
<a href="#">CRM   Egnyte</a>	Microsoft Puget Sound Campus Refresh	Microsoft - CONFIDENTIAL
<a href="#">CRM</a>	Broward County   Convention Center Expansion and Headquarters Hotel	Matthews Southwest
<a href="#">CRM   Egnyte</a>	Project 89	Confidential
<a href="#">CRM</a>	KDC - Project McLemmon	KDC
<a href="#">CRM   Egnyte</a>	Block 216	BDC Advisors, LLC
<a href="#">CRM</a>	The Wharf Phase II - Garage	PN Hoffman
<a href="#">CRM</a>	Forth Worth ISD 2017 Bond Program - Parent	Fort Worth Independent School District (FWISD)
<a href="#">CRM</a>	Round Rock ISD November 2018 Bond	Round Rock ISD
<a href="#">CRM</a>	Frisco ISD - 2018 November Bond - Parent	Frisco ISD

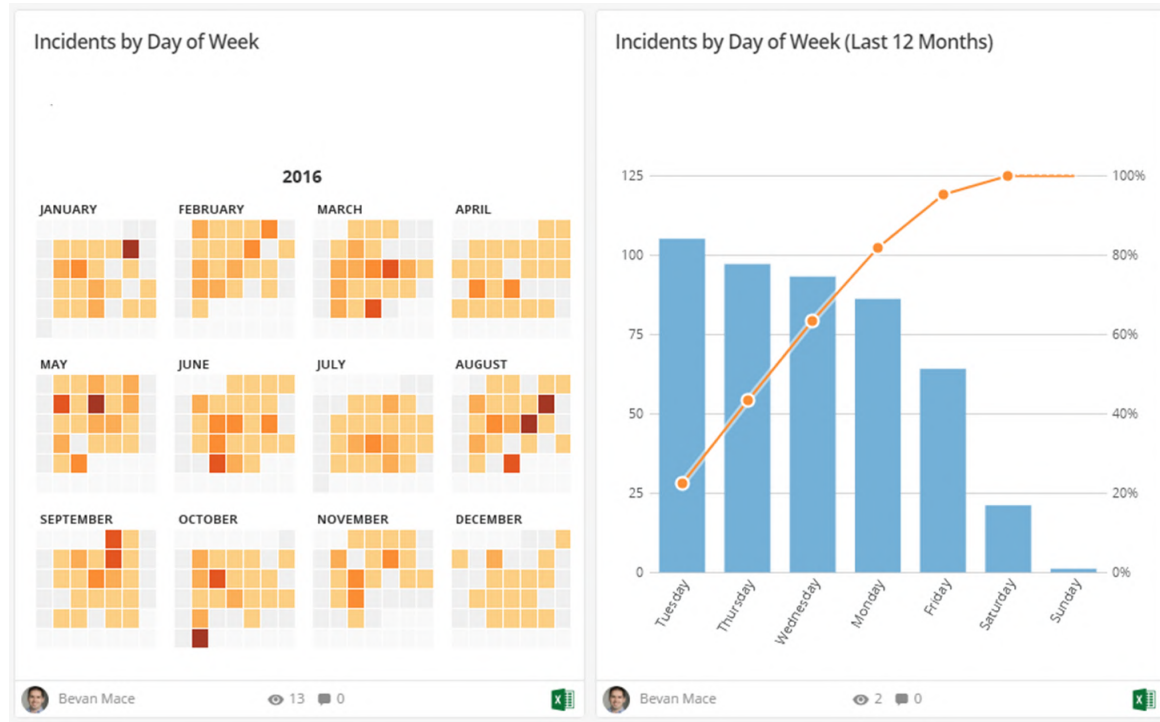
## Leadership



## Sales Teams

Sample data for demonstration purposes only

# Executive Leader “Aha”



Sample data for demonstration purposes only

# Transforming how we operate to improve

Productivity



Individuals

Proactive dialog



Teams

Alignment & transparency



Business

# Hacking our Project Review Process

## CoS Hack #6: Monthly Project Review (MPRv3)

**Owner:** BBUS LT (Rep: Pleas Mitchell)  
**Area of Excellence:** Operational Excellence  
**Format:** Single day, focused Hack process; non compete

**Advisory Board:** Pleas Mitchell, Steve Smithgall, Bevan Mace  
**Facilitation by:** Bevan Mace  
**Hack Team:** See Hack Participant page (draft)

### Conditions of Satisfaction

- Behaviors: Align on / identify value add for project teams (win hearts & minds); Leaders create safe environment to raise issues/ share bad news
- Identify what is most important to drive good dialog/ must be standard (align metrics throughout business, remove ambiguity – clear understanding of metrics)
- Optimize use of information/ Maximize use of DOMO to provide visual metrics and eliminate duplicate data entry/ self-reporting (ID duplicate entry and plan to address within MPR and to support other business upwards reporting)
- Reduce effort by 50%; Increase forward looking dialog by 100%
- Meet critical business information needs (narrative, actions) and satisfy with least effort GBL requirements (gate approvals)

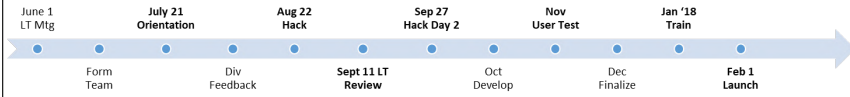
### Expected Outcomes

- Connectivity across business
- Commitment to solution
- Create MPR DOMO page with key questions & metrics**
- Identify key processes that need to be standard nationally
- Update MPR Playbook standard & OpEx template

### Stretch Goals

- Integrate other business information requests throughout month (reduce distractions)

### Timeline





# How do we simplify this?

**Agenda**

**Data**

**Questions**

**Assessments**

**Actions**

Question	Score	Action Item
Not in contact with our work.	3	Item is being tracked correctly and outcome is sufficient.
Item is being tracked correctly but outcome is not sufficient. Team has created / provided a plan to correct.	2	
Item is not being tracked correctly and outcome is not sufficient. No plan has been created / provided to correct	1	
<b>Safety Walks / Visits</b>	2	<b>Action Item</b>
Are project team members and key subcontractors participating as required?	Yes	
Are inspections generating sufficient data to identify unsafe?	Yes	
Are all Balfour Beatty team members and key subcontractors participating as required?		
Are consistent Officer Safety Reviews being performed on this project?		
Is the BBC SHE representative visiting the project at the correct intervals and effectively?		
<b>Tracking Safety Issues</b>		<b>Action Item</b>
Is the team tracking safety issues and closing them on a regular basis? (Supported by SLP)		
Are Subcontractors engaged and closing items timely?		
<b>PTP being done correctly</b>		<b>Action Item</b>
Are Pre-Task Plans (PTPs) being completed by all trades?		
Is the information on the PTPs adequately identifying and addressing the activity's exposure to hazards?		
<b>Site Logistics for Safety</b>	2	
Is the site Clean and Organized?		
Is the Site Logistics Plan (SLP) being used to identify areas of safety risk? (Supported by SLP)		
Does the site have Controlled Point Entry, Exclusion Zones and Controlled Access? Are these shown on the SLP?		
Is the SLP being communicated to the entire staff and out to all trades?		
<b>RIR &lt;= 1 (RIR = (# Incidents (by type, e.g. lost time, restricted/transfer, recordable) x 200,000) / (# mhrs))</b>	3	
What is the current RIR for the project? Enter here ----->	0	

# Can we bring all pieces together?

The screenshot shows a project management dashboard for 'MPR v3'. The dashboard is divided into several sections:

- Project Overview:** Contains four summary cards: 'Project Information' (CONSTITUTION SQUARE OB4), 'Recordable Incident Rate' (0 by Month), 'Schedule - Contract Com...' (10-01-2018, 13 Months Remaining, 44%), and 'Cost - Contract Value & C...' (\$86,062,802, 25%).
- Zero Harm:** Includes a table of 'Zero Harm Questions', a 'Safety Inspections v2' bar chart (75% safe), and a 'Safety Compliance Issues' bar chart (66 issues).
- Callout Cloud:** A blue cloud contains the text 'Mgmt App in overview (summary) and each OpEx collection (focused)'. Two blue arrows point from the cloud to a 'Takeaways/Decisions' pop-up window and a 'Work Register' table.

**Takeaways/Decisions Pop-up:**

Date	Comment
10/01/2018	Difficulty reaching final settlement with...
10/01/2018	
10/01/2018	
10/01/2018	

**Work Register Table:**

ID	Item	Status	Priority
10001			
10002			
10003			
10004			
10005			
10006			
10007			
10008			
10009			
10010			
10011			
10012			
10013			
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Sample data for demonstration purposes only

# How did we use our time differently?



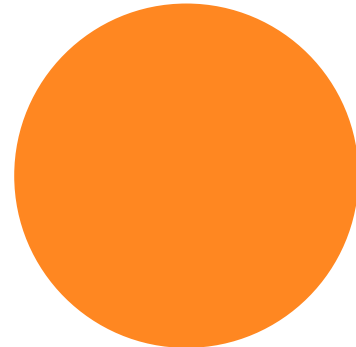
**Process**

**Improving**



**Outcomes**

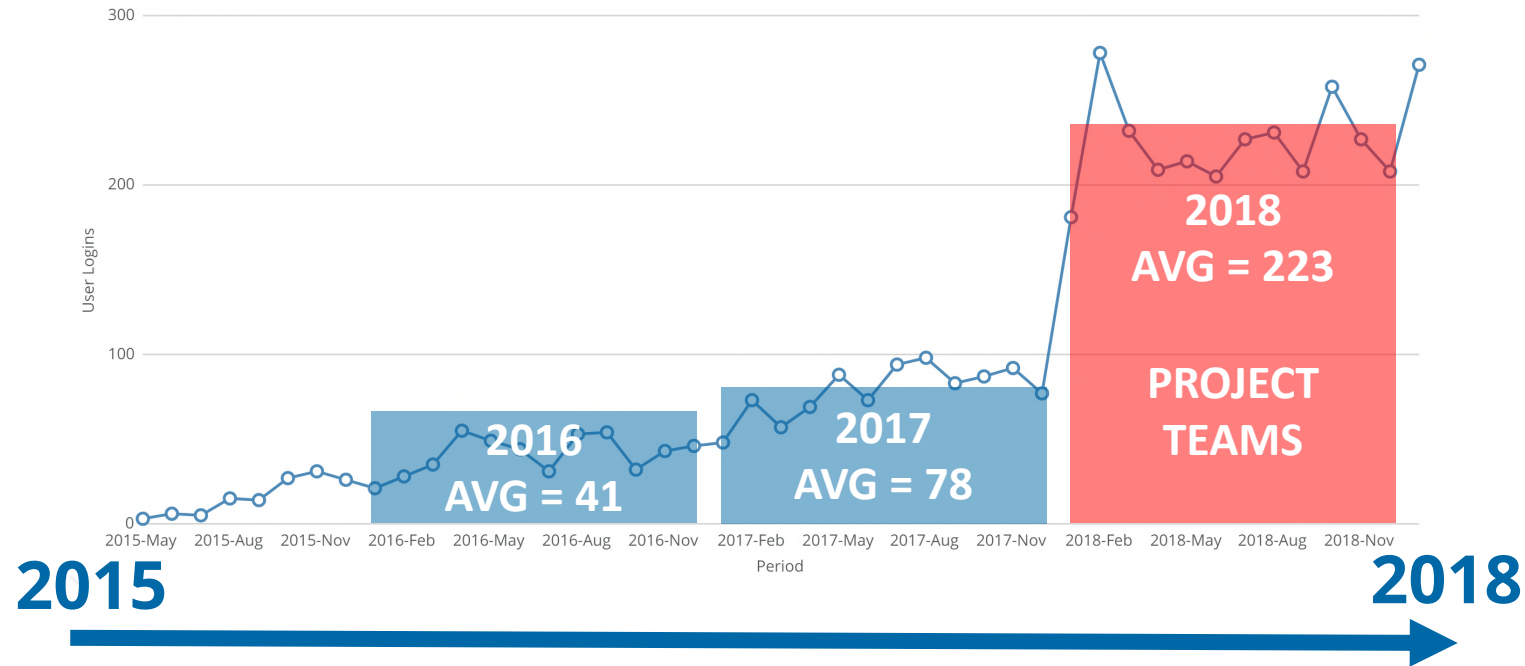
**Analyzing**



**Consequences**

**2018: Making Actionable**

# Moving to the front lines...





# Transformed Project Review: Typical Collection

Agenda item

Open ended questions

Automated data

Team assessments

Team actions

## 1. Zero Harm (Safety)

Nothing less than Zero Harm for anyone who comes in contact with our work

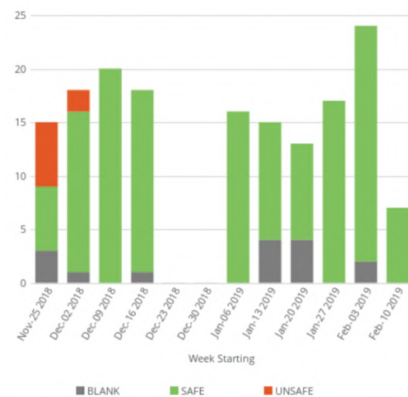
### Zero Harm Questions

#	Category	Question
1	Safety Incidents/ Fatal Four Hazards*	What safety trends are we seeing nationally/ locally and how might they relate to work on our project?
2	Safety Walks*	How well are we performing weekly project safety inspections?
3	Safety Observations*	How are we doing at recognizing positive safety behaviors and identifying un-safe issues?
4	Safety Issues*	How timely are trades closing safety issues? Which safety issues continue to occur?
5	Site Logistics Planning	What are the upcoming activities in the next 1-3 months that will affect the "current" conditions?
6	Pre-Task-Planning	How complete are subcontractor PTP's and weekly Tool Box Talks?

### Safe & Un-Safe Observations

by Week

86% Safe Observations



### Zero Harm Summary

#### February 2019

Weekly safety walks continue. PPE & bad extension cords were discussed as main safety issues for the past month. Supervisors are to be written up for crews inability to follow safety requirements. There will be some changes in the site plan in the next week and following weeks as the foot print for the lot is reduced to minimum area where construction activities will be acceptable.

#### January 2019

Safety walks continue and housekeeping remains as a top priority. Housekeeping is improving due to a night time cleaning crew. Travis to help clean up items with a blank category.

#### December 2018

Continue to watch housekeeping as a team and Travis to take over weekly safety walks.

#### November 2018

Continue to make sure weekly reports are correctly entered

### Key Issues & Actions

#### Weekly Safety Inspections & Reporting

**ACTION**  
Assign observations to Safe and Unsafe and Travis to help with weekly reporting.

**DUE** Dec 7  
**BALL IN COURT**  
Travis Powell

#### Missing Reports

**ACTION**  
Add all missing reports

**DUE** Feb 8  
**BALL IN COURT**  
Travis Powell

#### BB Participation for Safety Walk

**ACTION**  
Enter BB Participation for Safety walks in January

**DUE** Feb 15  
**BALL IN COURT**  
Travis Powell

#### No Blank Status for Safety Observations

**ACTION**  
Travis to recategorize statuses listed as "Blank"

**DUE** Feb 15  
**BALL IN COURT**  
Travis Powell

Sample data for demonstration purposes only

DOMOPALOOZA

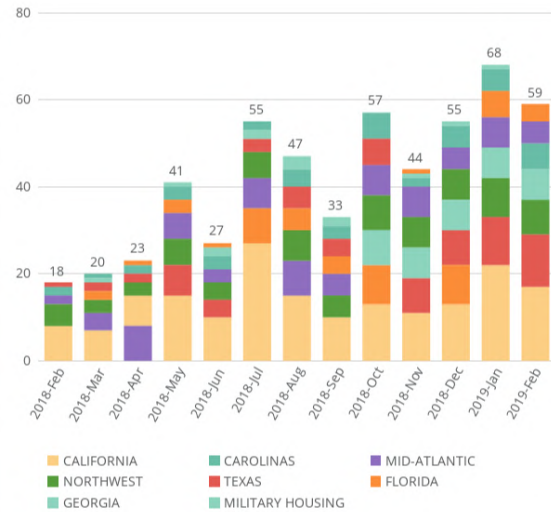
# For our Operations Leaders

## When are MPRs being conducted?

by Month

44

Current



Bevan Mace

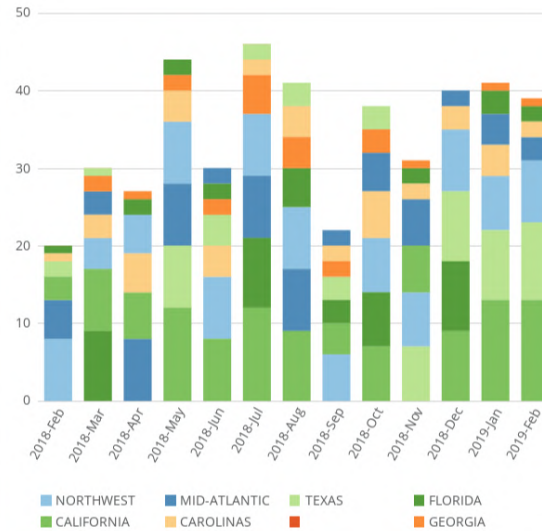
4,287 0

## MPR Actions by Project

by Month

39

Current

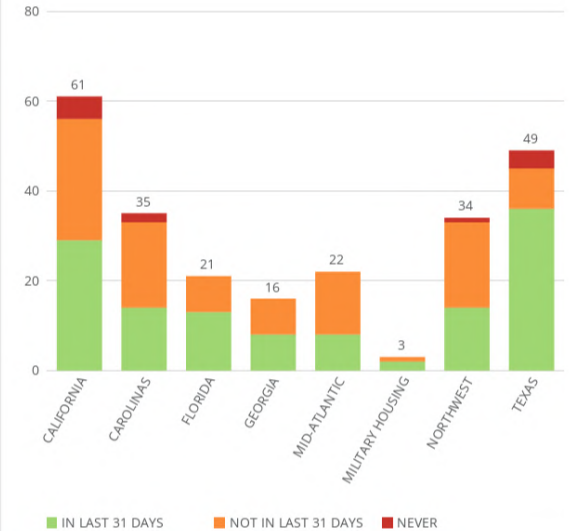


Bevan Mace

1,462 0

## How many PMs have accessed DOMO (MPR) in last month...

52% of 238 Total



Bevan Mace

2,530 0

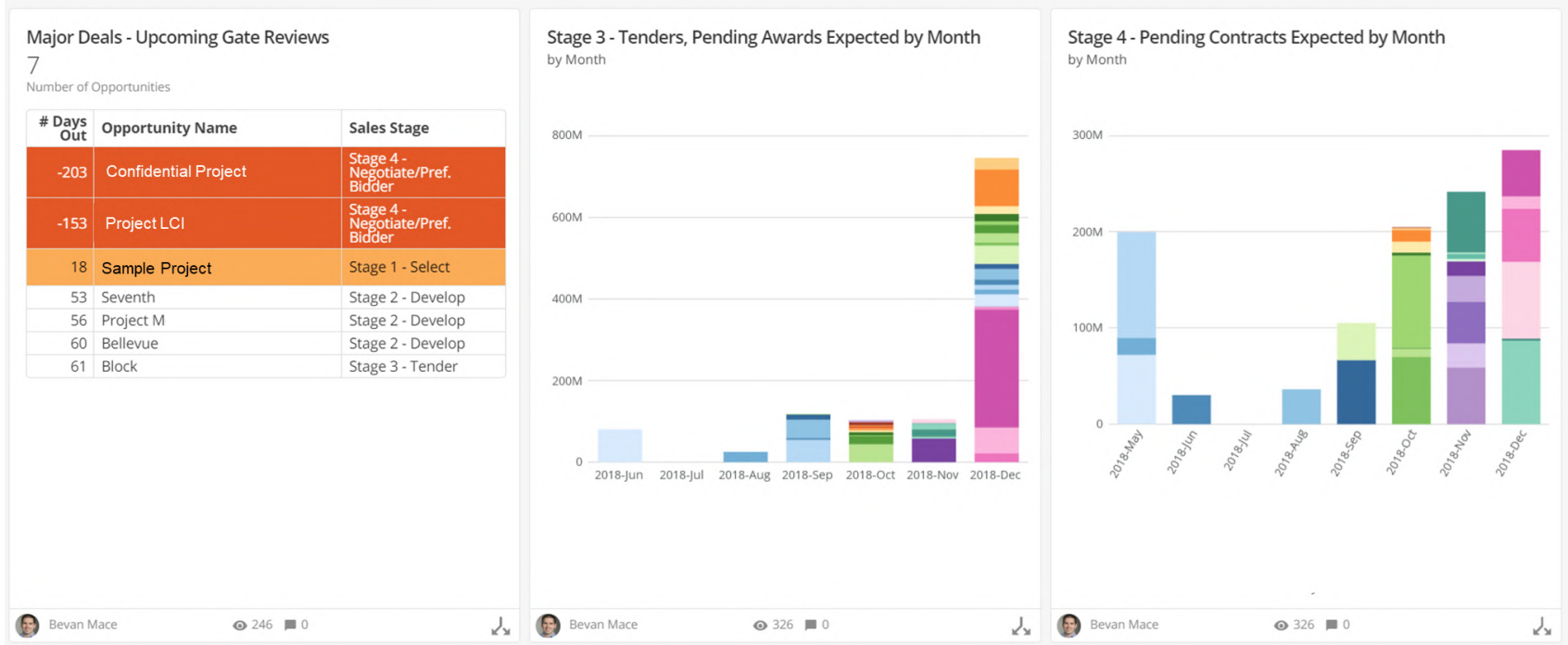
Sample data for demonstration purposes only

DOMOPALOOZA





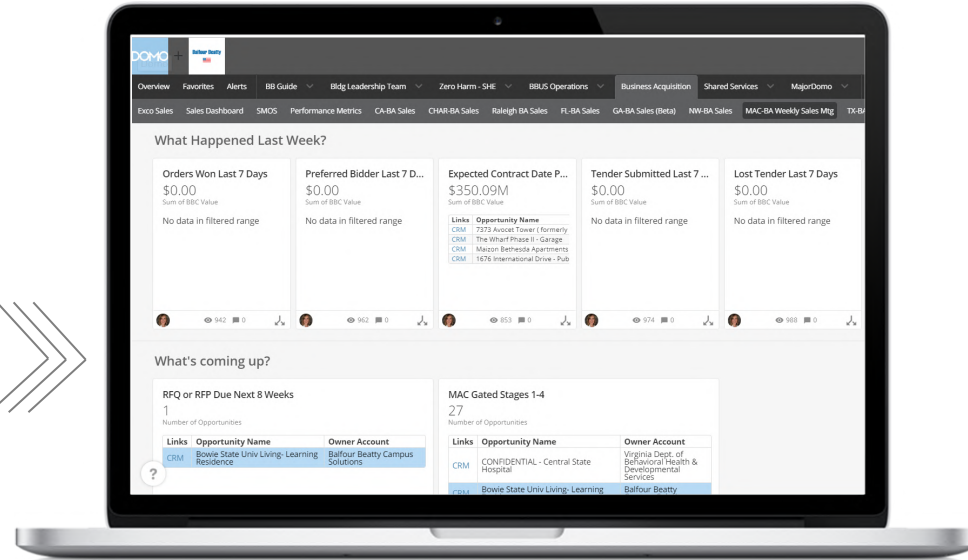
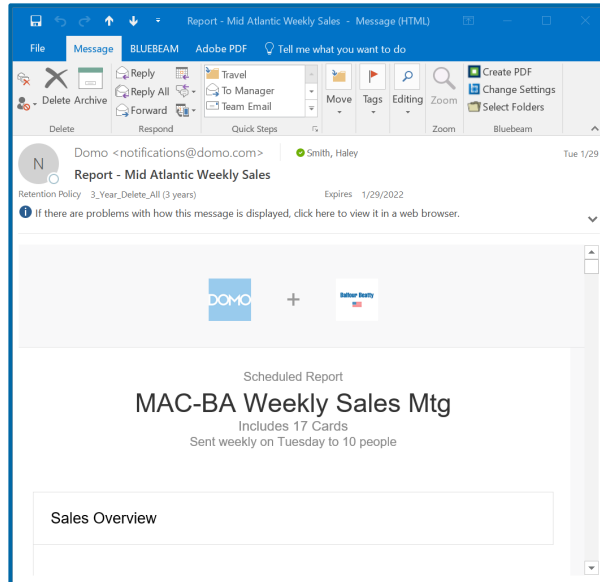
# For Our Leadership



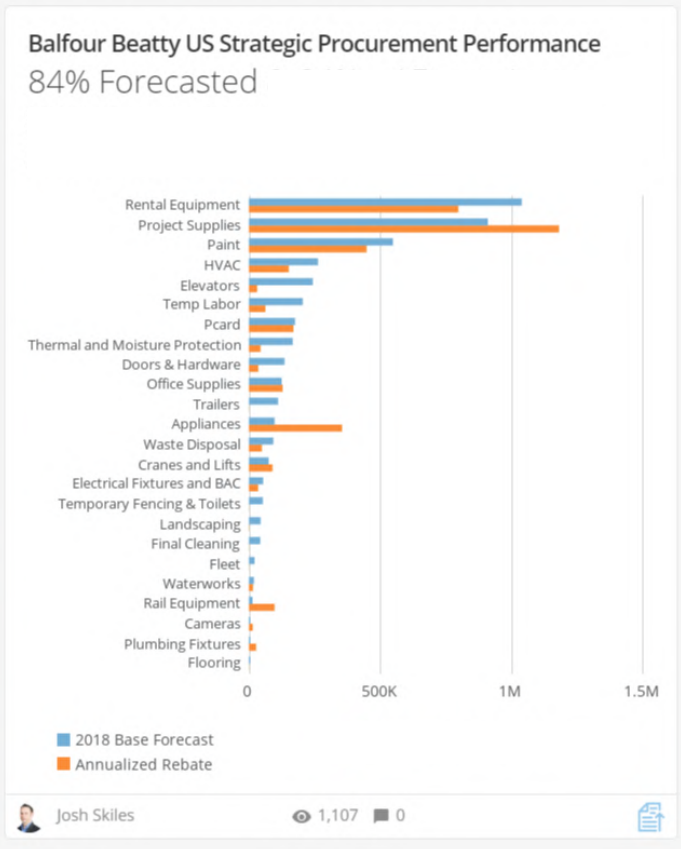
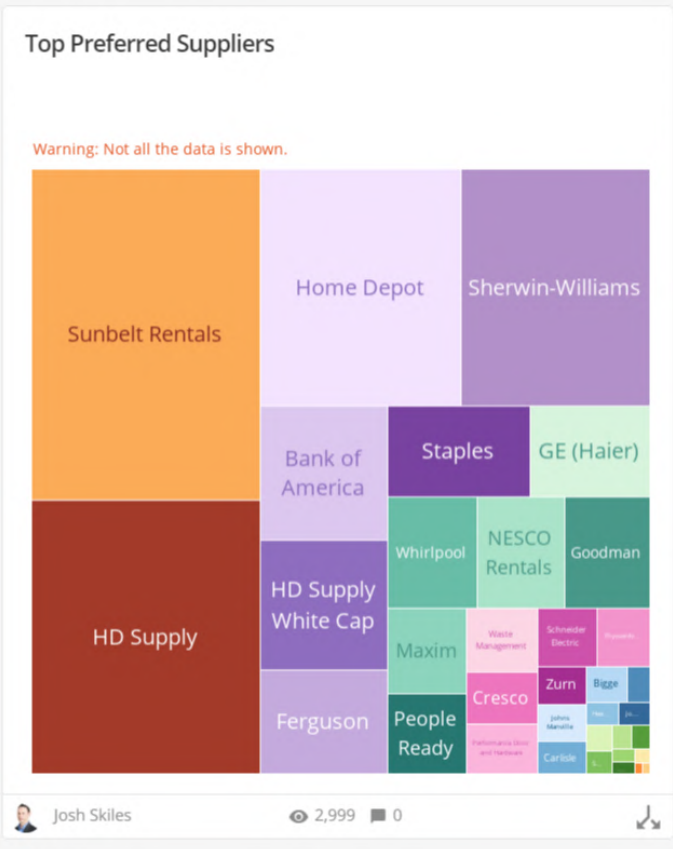
Sample data for demonstration purposes only

# Weekly Reports

- Pulling people into the data
- Transparency across departments
- Increased data quality



# Strategic Procurement



Sample data for demonstration purposes only

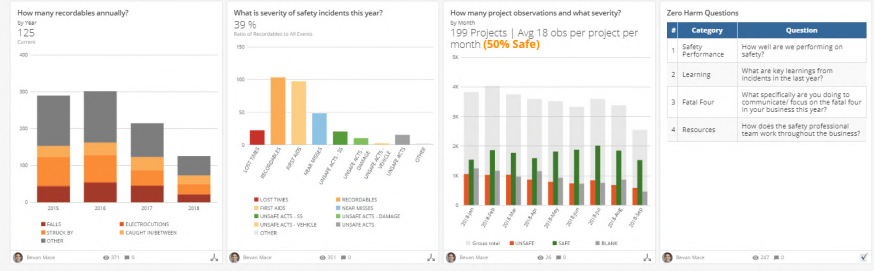
# Business Reviews

Project Name	Fiscal Year	Q1				Q2				Q3				Q4				FISCAL YEAR TOTAL	PHASES
		Actual	Budget	Variance	%	Actual	Budget	Variance	%	Actual	Budget	Variance	%	Actual	Budget	Variance	%		
Project Name	Fiscal Year	\$ 100,000	\$ 100,000	\$ 0	100%	\$ 100,000	\$ 100,000	\$ 0	100%	\$ 100,000	\$ 100,000	\$ 0	100%	\$ 100,000	\$ 100,000	\$ 0	100%		
Sub-Category	Fiscal Year	\$ 50,000	\$ 50,000	\$ 0	100%	\$ 50,000	\$ 50,000	\$ 0	100%	\$ 50,000	\$ 50,000	\$ 0	100%	\$ 50,000	\$ 50,000	\$ 0	100%		
Item	Fiscal Year	\$ 10,000	\$ 10,000	\$ 0	100%	\$ 10,000	\$ 10,000	\$ 0	100%	\$ 10,000	\$ 10,000	\$ 0	100%	\$ 10,000	\$ 10,000	\$ 0	100%		

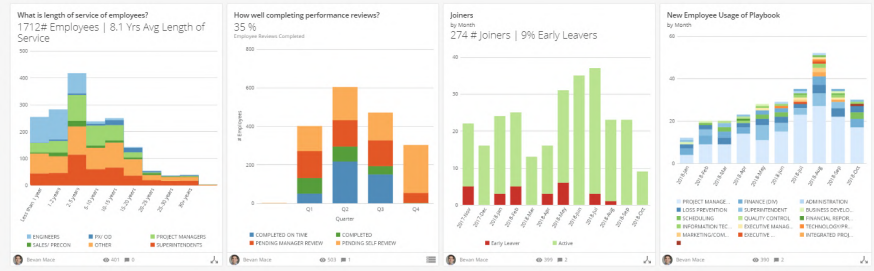


## 1. Geo Review - Opening Comments/ Progress Since Last Geo Review

## 2. Safety



## 3. Talent



## 4. Sales

## 5. Operations

## 6. Finance

## 7. Geo Review - Closing Takeaways/ Action Items

Sample data for demonstration purposes only

# How did we use our time differently?



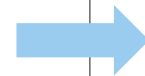
**Process**

**Improving**



**Outcomes**

**Analyzing**

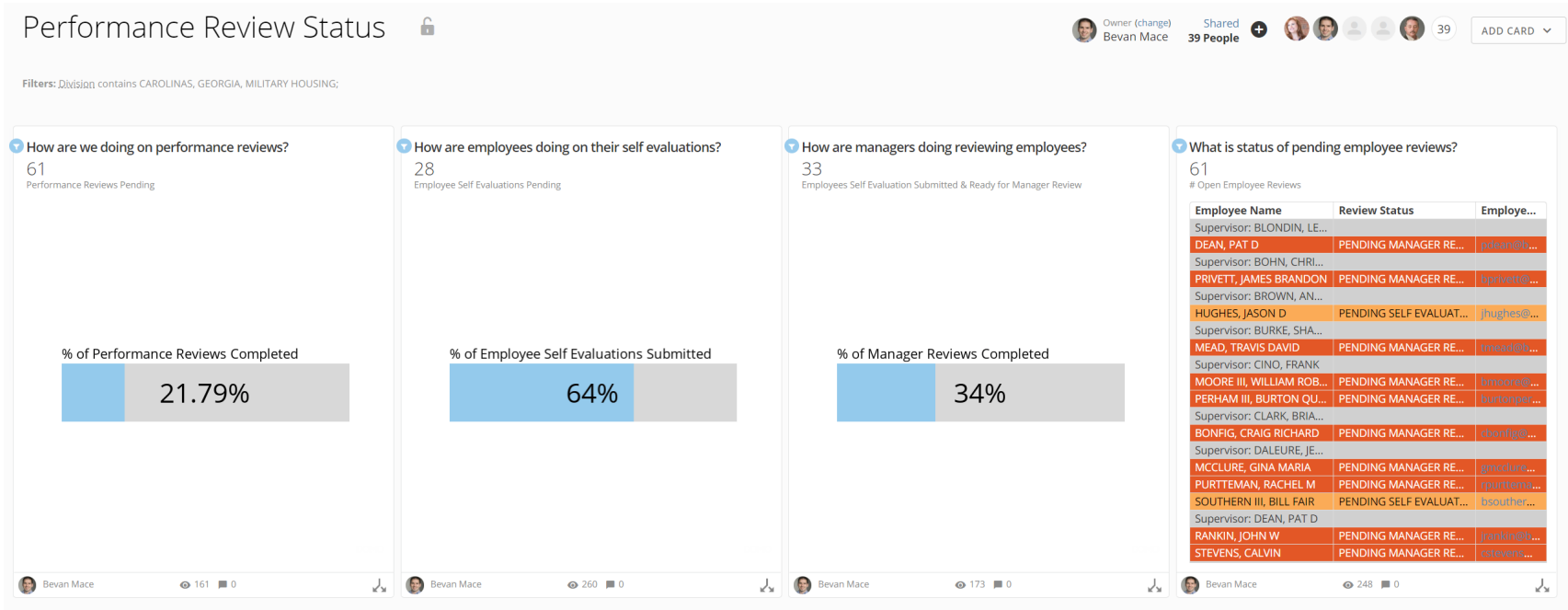


**Consequences**

**Fire  
Preventing**

**2019: How do  
we get more  
VALUE?**

# Focus on people



Sample data for demonstration purposes only



# Key Enablers

- ✓ Culture/ Leader Behaviors
- ✓ Standards
- ✓ Data Architecture

# How can you apply this tomorrow?



## Start small

What's most important to your people or business?



## P-D-C-A

Identify how measure, set targets and standardize work



## Coach

Ask open ended questions... be curious about variances

# Contact us



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m



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m

**Balfour Beatty**

DOMOPALOOZA

**QUESTIONS?**

**THANK YOU**