

# Preconference III: Taking Data to the Next Level

Exploring the Analytics Maturity Model:  
Capitalizing on your Investment in  
Aggregate Spend

21 October 2015

# Agenda

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Aggregate spend: History, challenges, opportunities

Analytics maturity model

Use case #1: Descriptive analytics

Use case #2: Predictive analytics

Use case #3: Prescriptive analytics

Establishing a framework for analytics

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# Aggregate spend: History, challenges, opportunities



# A brief history of aggregate spend

## March 2010

- ▶ Affordable Care Act signed into legislation
- ▶ Section 6002 establishes national disclosure program

## December 2011

- ▶ CMS proposes and solicits public comment on rule 76 FR 78742 regarding transparency reports

## August 2013

- ▶ Data collection for reporting to begin 8/1/2013
- ▶ Decision that retroactive reporting would not be required under disclosure program

## September 2014

- ▶ CMS releases first period of reportable data (8/13 to 12/13)
- ▶ ~4.3M records for \$3.5B\*

## June 2015

- ▶ CMS releases second period of reportable data (2014)
- ▶ ~11.4M records for \$6.5B

\* 2013 figures corrected in June 2015 release to reflect \$2.5B in spend

# Implementation challenges for Life Sciences companies

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- ▶ Disparate data systems and records used to support many facets of organization
- ▶ Sheer volume of data to be aggregated, cleansed, and prepared for reporting
- ▶ State by state variations in addition to federal disclosure requirements
- ▶ Substantial investments of time and money for both internal and external resources

# Capitalizing on your investment

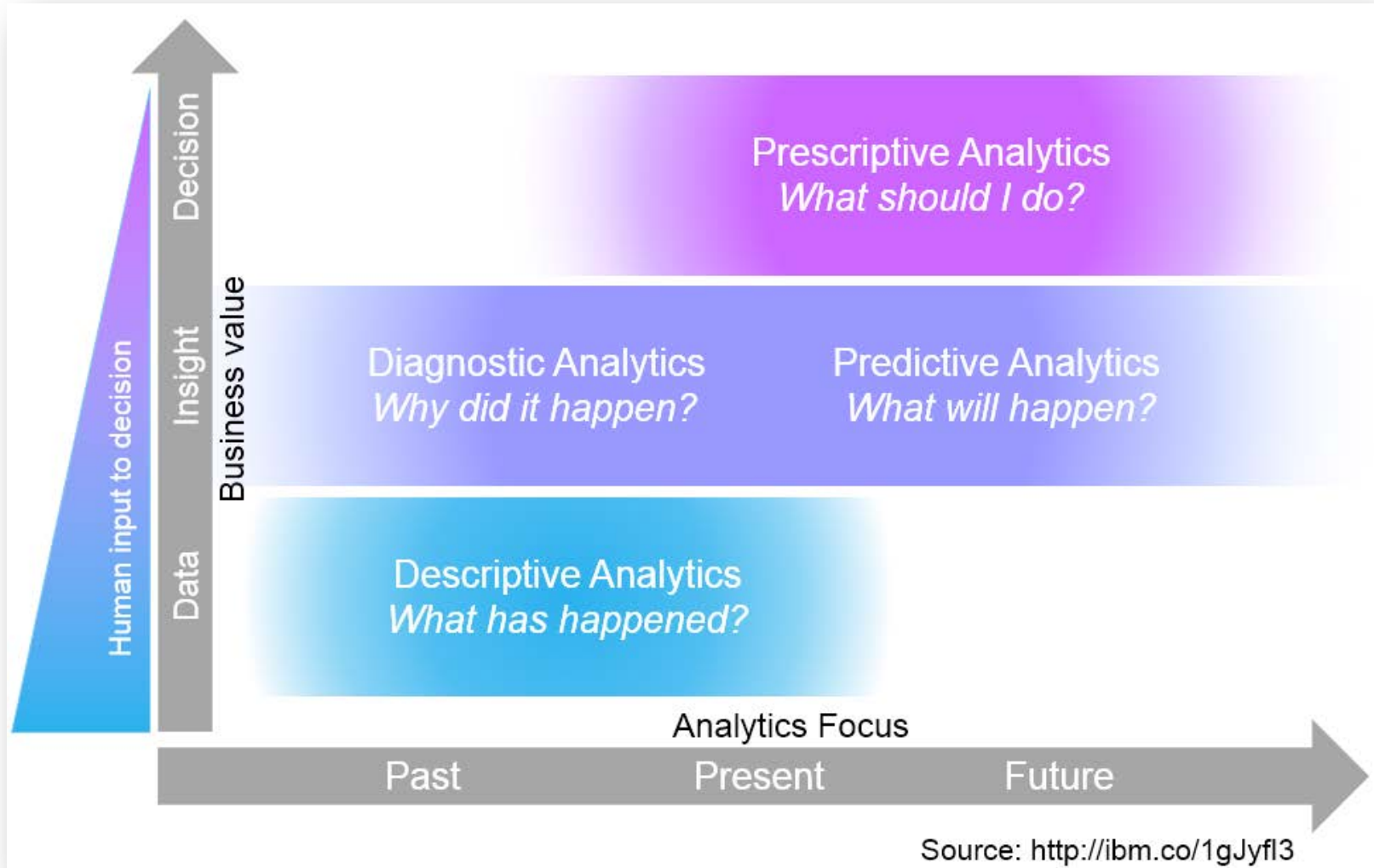
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- ▶ Data is now more accessible than ever before, allowing Life Sciences organizations to:
  - ▶ Manage public perception and protect themselves from reputational risks
  - ▶ Benchmark with their peers and learn about their competitors
  - ▶ Partner with business stakeholders to bridge the gap between compliance concerns and business insights
- ▶ ***More efficiently and effectively predict, detect, and mitigate risk across the organization***

# Analytics maturity model



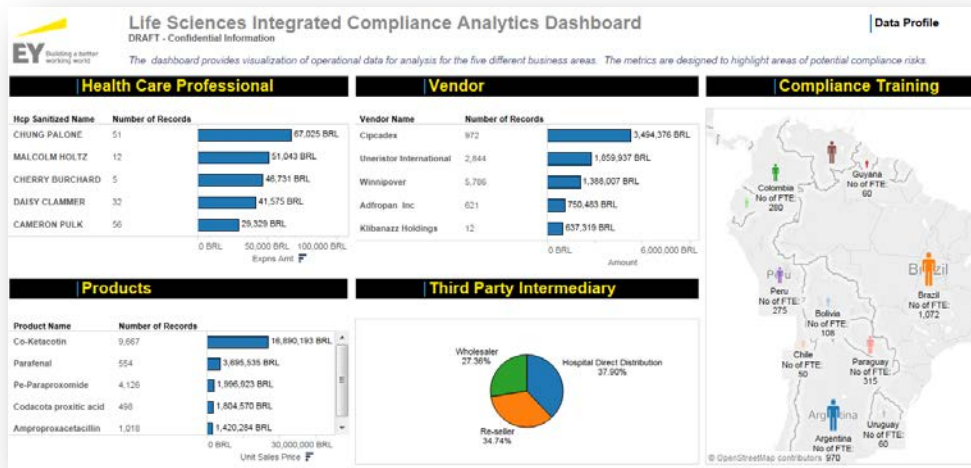
# Analytics maturity model



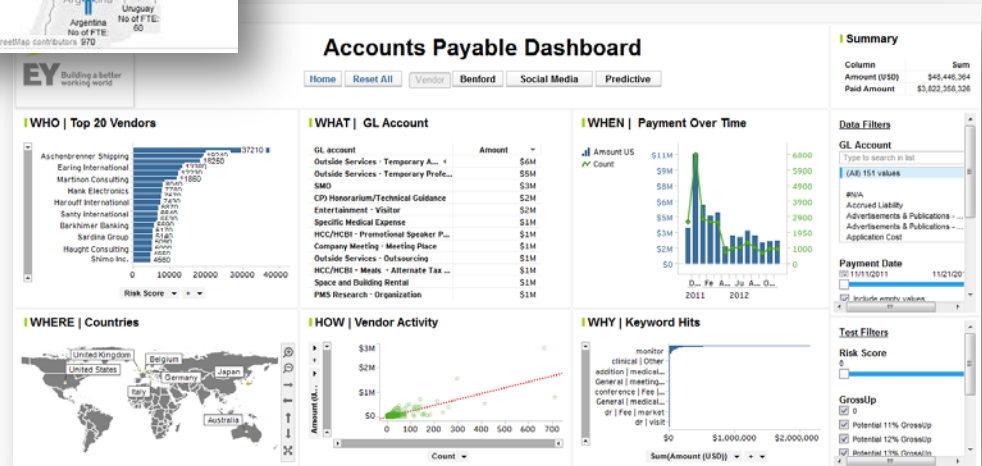
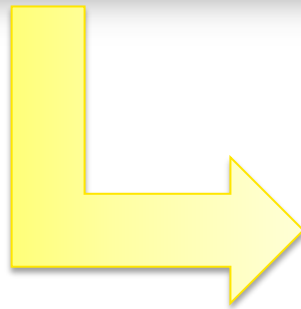


# Use case #1: Descriptive analytics

An effective descriptive analytics deployment typically will result in the consolidation of large, disparate data sources in a manner that provides Compliance and business stakeholders a clear line of sight into how transactional activity is distributed by entity over geography, time and other categorical dimensions.



Typical descriptive analytics deployments will aggregate multiple data sources across the business, while also providing the ability to drive down into the details of a single data source.



# Use case #2: Predictive analytics

Predictive analytics will leverage insights, for example those identified during descriptive analytics, to define and test against specific metrics that allow end users to predict outliers and items for further review in an automated and repeatable fashion.

**EY Building a better working world**  
**FIDS LS Integrated Compliance Dashboard**

**Meal Interaction Metric Weights**  
 ME.2: Identify reps with high volume of weekend/holiday events/interactions (rank by frequency)  
 Slider: 0 to 5, value at 1

**Speaker Program Metric Weights**  
 SP.3: Rank reps by number of events high percentage of non-prescriber attendees  
 Slider: 1 to 5, value at 3

**Sample Distribution Metric Weights**  
 SD.5: Identify reps with high percentage of total samples provided to single HCP or institution  
 Slider: 0 to 5, value at 3

**MIR Metric Weights**  
 MIR.5: Identify reps with high volume of PIR request in comparison to peer set (at TA level)  
 Slider: 0 to 5, value at 2

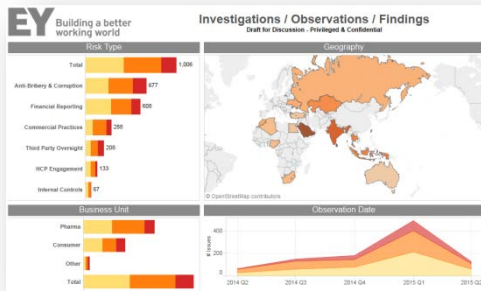
Third Party Payments			Risk Score	Change
Number of Vendors	Number of Records	Amount	291	↓ -2.9%
88	53,165	\$1,428,094,969.14		
Travel and Entertainment			612	↑ +4.6%
Employees	Number of Records	Amount Disbursed		
50	7,690	\$762,438.36		
Sanction and Political Exposure Risks			451	↑ +9.7%
Number of Records	Avg. Similarity	Amount USD		
381	86.33%	\$2,811,067.04		
Speaker Programs			406	↓ +1.2%
Events	Honoraria Paid			
135	409	\$313,527.42		
Sample Distribution			185	↑ -12.7%
Products	Number of Records	Product Volume		
31	23	7,883		42,660
Medical Information Request			346	↓ -5.6%
HCPs	Products	Requests	Approved	Denied
117	20	443	292	151
Fee For Service			509	↑ +15.2%
HCPs	Representatives	Participants	Number of Records	Expense Amount
128	233	7,402	409	\$780,862.51
Meals			494	↑ +3.2%
HCPs	Representatives	Number of Records	Expense Amount	
144	388	1,226	\$547,219.98	
Distributor Monitoring			396	- ±0.0%
Customers	Revenue	Counter-Revenue		
49	Null	(\$985,398.59)		
Unit Price/Margin Analysis			276	↓ -0.6%
Products	Average Unit Price	Average Margin		
12,091	\$399.73	37%		

*Defined metrics are weighed in terms of significance to the overall model to develop and trend risk profiles across activities over time.*

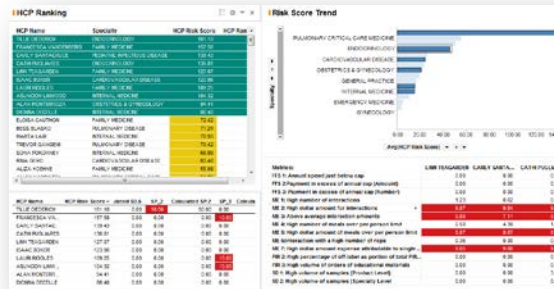


# Use case #3: Prescriptive analytics

## WHAT HAPPENED?

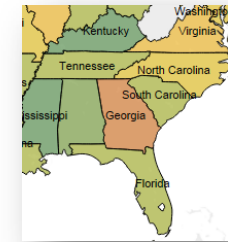


## WHY DID IT HAPPEN? WHO WILL BE NEXT?



## WHAT ACTIONS SHOULD WE TAKE?

Outcome #1: Predictive analytics overlaid with sales territories indicating who should receive training



Outcome #2: Employees tiered by level of risk with corresponding controls implemented, i.e. top tier of employees placed on close monitoring plans.

Representative Full Name	REP Risk Score	REP Rank
VICTORIA GIBSON	181.87	1
GLENDIA FRAZIER	156.49	2
MARCELLA LINDSEY	148.84	3
GABRIELLE LOWERY	147.29	4
SUSANNE ROBLES	143.49	5
URSULA HENSON	117.86	6
BROOKE MALONE	115.96	7
ELVA MCCLELLAN	113.71	8
SALLY PERCE	111.16	9
CAROLYN PEREZ	110.83	10
AVA BLANCHARD	107.82	11
ADA HARDY	106.89	12
MARSHA DOUGLAS	104.86	13
MARGO KENT	103.76	14
MARIE TURNER	99.71	15
CORINNE FISCHER	99.42	16
SHELBA STRICKLAND	98.02	17
COLLEEN BURTON	97.19	18
LEANN BLEVINS	96.56	19
FRIDOLLA LOVE	95.78	20

Descriptive analytics used to understand what historical issues are most prevalent within the organization. For example, in Q1 of 2015, customer interaction violations represented the highest number of observations for your field force.

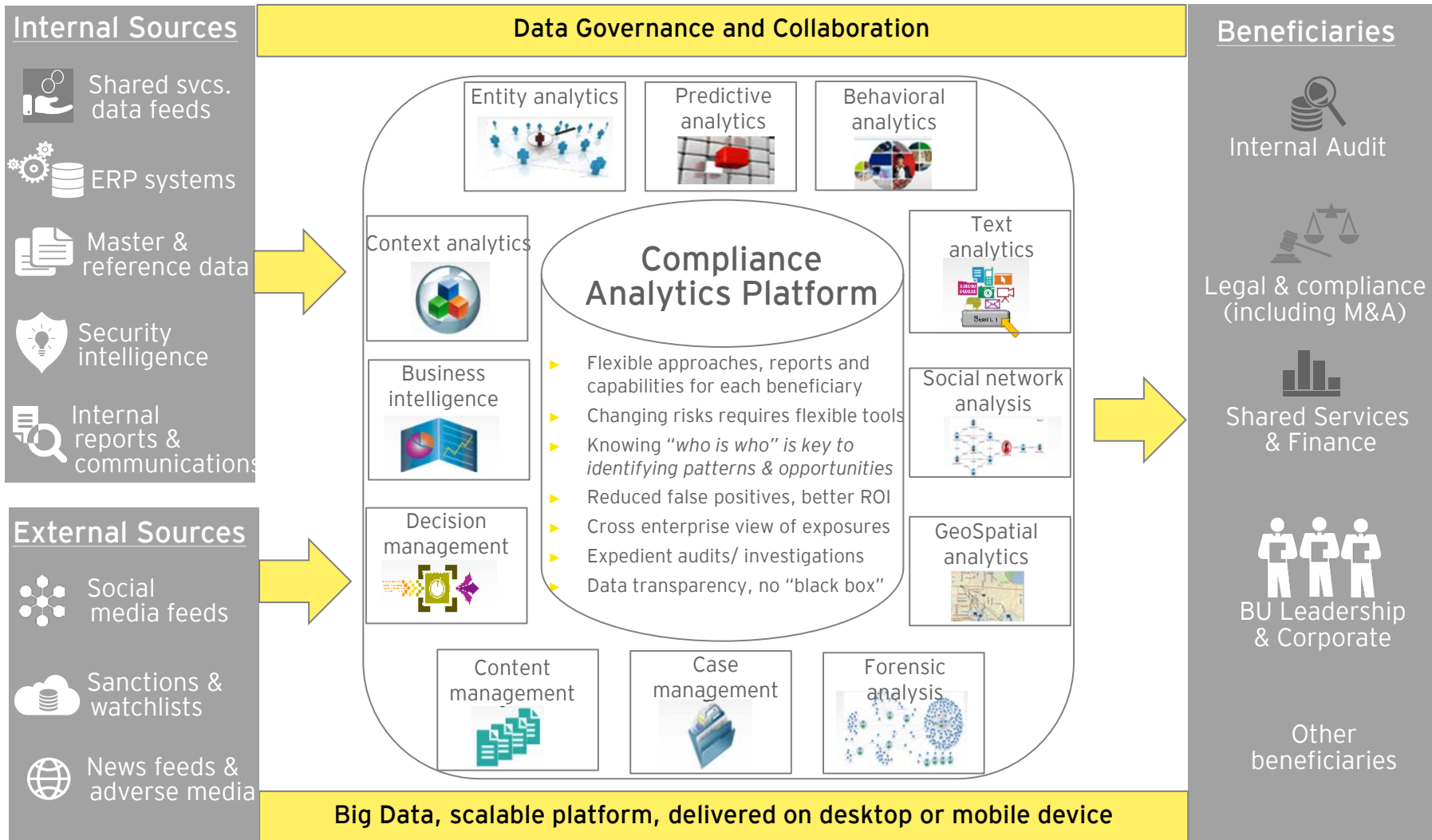
Predictive analytics developed to flag interactions between employees and customers that have higher probability of violation. For example, employee's who sample Obesity related products and have two or more incomplete training courses represent a higher risk of violation.



# Establishing a framework for analytics



# Putting the appropriate approach in place



# Components of a successful compliance monitoring program

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## CONSISTENCY

Develop a consistent monitoring approach

## FOCUS

Improve the depth and breadth of monitoring with a forensic perspective and risk-based targeting (*beyond just policy compliance*)

## GOVERNANCE

Establish a governance model to identify issues, report results and track remediation across the business, ensuring the appropriate actions are taken

## SPONSORSHIP

Partner with the business to solicit sponsorship at the onset and drive value beyond the Compliance organization

# Contact information

**Corey Dunbar**

Senior Manager, Ernst & Young

Fraud Investigations & Dispute Services

Office: +1 212 773 1808

[Corey.Dunbar@ey.com](mailto:Corey.Dunbar@ey.com)

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