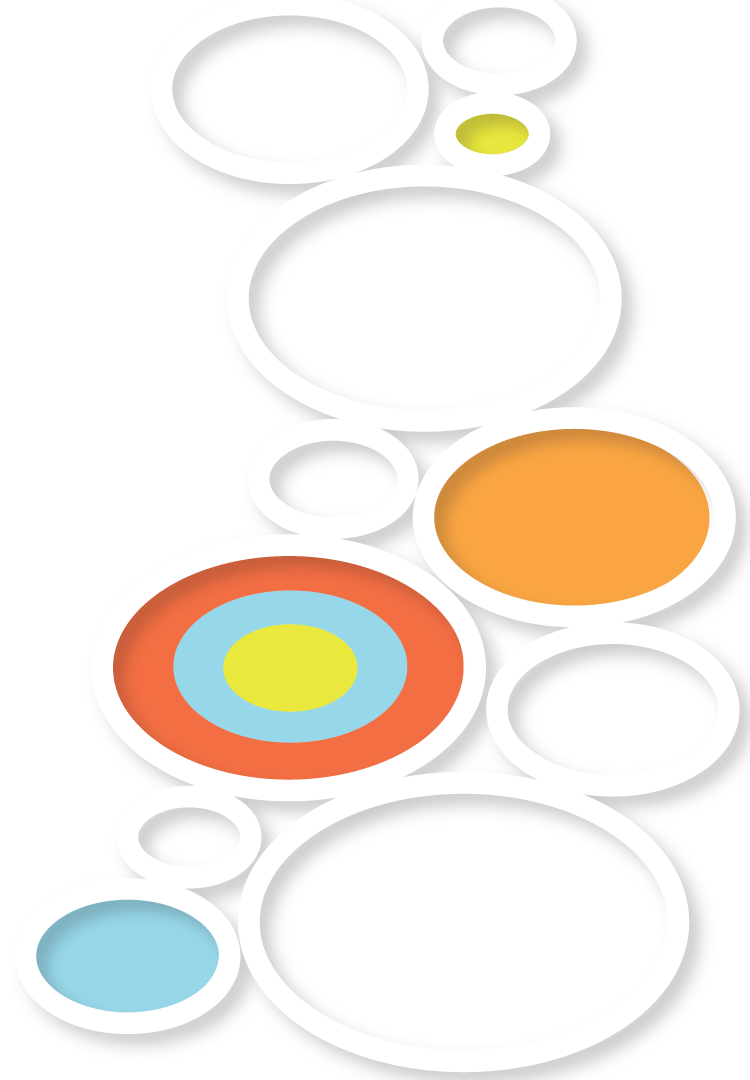


# A Strategic Approach to Information Management

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Jeroen Dijkxhoorn  
Center of Excellence Information Management & Analytics  
SAS South West Europe



# INFORMATION MANAGEMENT

## MARKET EVOLUTION LEADS TO STRATEGIC INFORMATION MANAGEMENT APPROACH



**INFORMATION  
MANAGEMENT**

**THE NEW OPPORTUNITY**



# KEY CUSTOMER OBJECTIVES

## TOP OF MIND OBJECTIVES AND REQUIREMENTS

Manage data as a strategic information asset for business value

Optimize decision making to gain competitive advantage

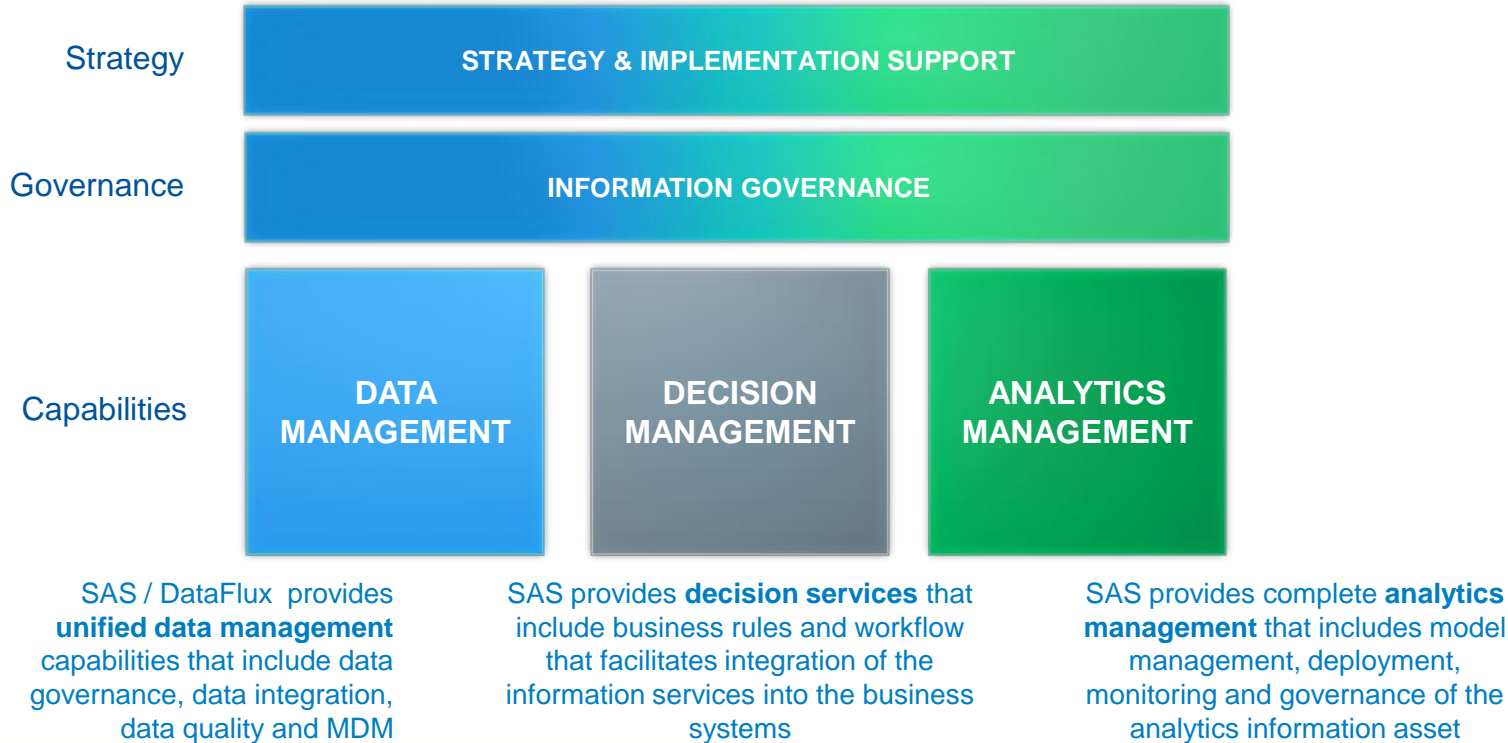
Implement an information management approach that results in competitive differentiation

Fast time to value generating decisions with minimal resources

Apply analytics more pervasively to a broader range of decisions



# SUPPORT FOR ENTIRE INFORMATION MANAGEMENT CONTINUUM



### Data Integration Toolbox

Data Services SOA

Metadata Management & Metadata Exchange

Data Integration Tools

ETL/ELT

Data Federation

Data Exploration

Data Profiling

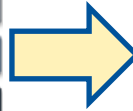
Metadata Management

Data Quality

Master Data Management

Data Access

Administration, Scheduling, Versioning, Deployment



### Data Management Platform

Metadata Exchange and Collaboration

#### Data Quality

- Data Exploration
- Data Profiling
- Entity Resolution
- Business Rule Creation and Management
- Verification, Normalization, Standardization, Transformation
- Data Monitoring
- Hierarchy Management
- Data Enrichment

#### Data Integration

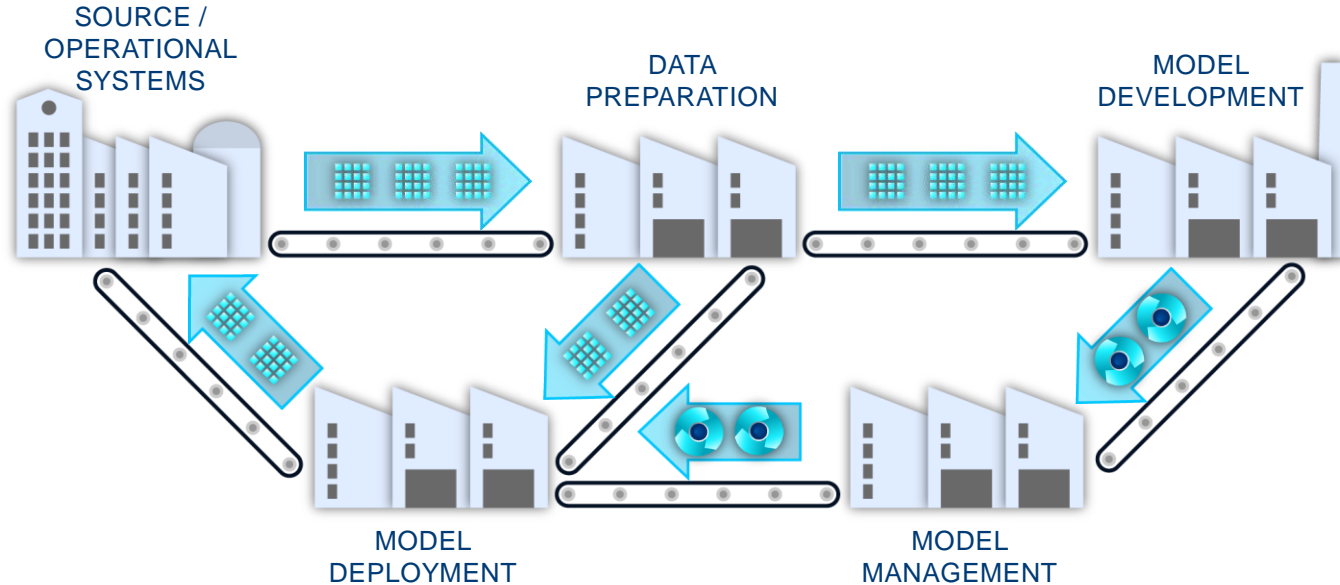
- Data Transformation
- ETL/ELT
- Data Synchronization
- Data Migration
- Analytic Data Preparation
- Business Rule Execution
- Merging and Clustering

#### Master Data Management

- Business Data Services
- Entity Definition, Management and Search
- Best Record Selection
- Master Data History, Auditing and Exception Reporting
- Domain Data Models

Data Connectivity and Data Federation





Leverages data quality and governance functionality to monitor and identify analytical model degradation as well as the data used for analytics

# DECISION MANAGEMENT

# BRINGING DATA AND ANALYTICS TOGETHER IN THE BUSINESS PROCESS

Decision Management  
Environment leveraging

- Events
- Data
- Business Rules
- Workflow
- Models

to drive decisions in  
operational processes

The screenshot displays the SAS Decision Management interface for a 'Car Loan Strategy' decision flow. The flow starts with a 'LOAN\_APPLICATION' event, which leads to a 'Split' node. The split node is configured to split by 'Purpose = 'LOAN'' vs. 'LEASE''. This results in two parallel paths: one for 'Loan Model 1' and one for 'Lease Model 1'. Each model path leads to a 'Rule Set' node (Loan Approval Rules and Lease Approval Rules, respectively), which then converge into a final 'LOAN\_APPLICATION\_RESULTS' event.

Below the flow diagram, the 'Run Settings/Results' section is visible, showing 'Input Settings' and 'Results'.

Row	scoreCardPoint	applicationActi...	offerRate	modelInd	applicationId	loanAmt	ageOldestTrad
1	630	Approve	475		1001	33612	46
2	696	Approve	475		1002	27112.96	153
3	679	Decline	0		1003	25740.010000...	194
4	659	Decline	0		1005	14238.82	129
5	656	Decline	0		1006	22167.510000...	108
6	660	Approve	475		1008	10000	182
7	670	Approve	475		1010	20092.99	82
8	679	Decline	0		1012	29491.25	130
9	679	Decline	0		1014	29195	88

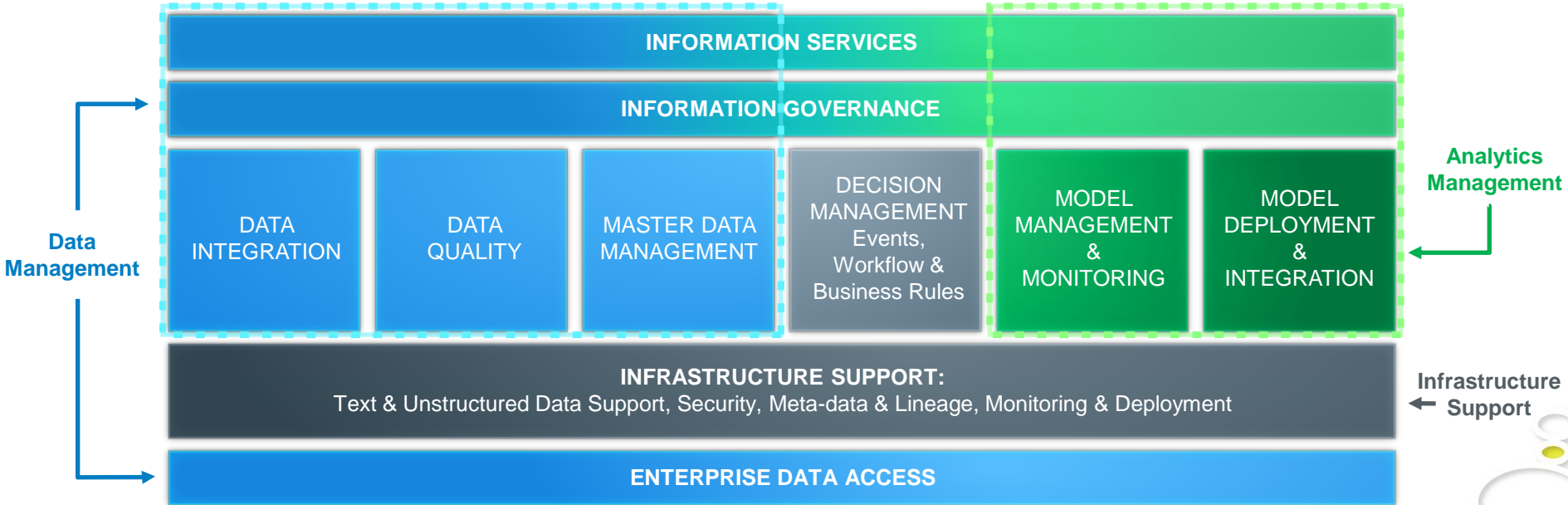
Below the results table, the 'Rules Fired' section shows a single rule fired:

Row	Rule	Rule Set
1	IF scoreCardPoints >= 630 and < 680 THEN applicationAction = 'Approve', offerRate = defaultRate.	Loan Approval Rules



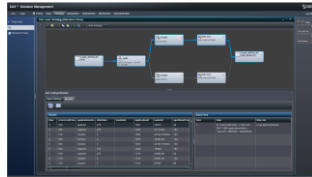
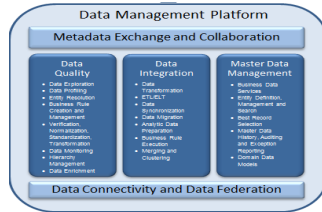
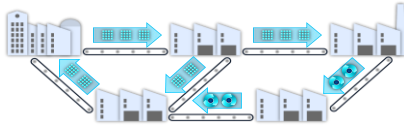
# SAS® INFORMATION MANAGEMENT

## CAPABILITY VIEW



# SAS® INFORMATION MANAGEMENT

## UNDERPINS THE BUSINESS ANALYTICS FRAMEWORK



**ANALYTICS MANAGEMENT**  
Complete lifecycle management

**DATA MANAGEMENT**  
Comprehensive quality, relevance, governance

**DECISION MANAGEMENT**  
Driving the decision cycle: bringing analytics to the point of contact



# THE ANALYTICS LIFECYCLE

## BUSINESS MANAGER

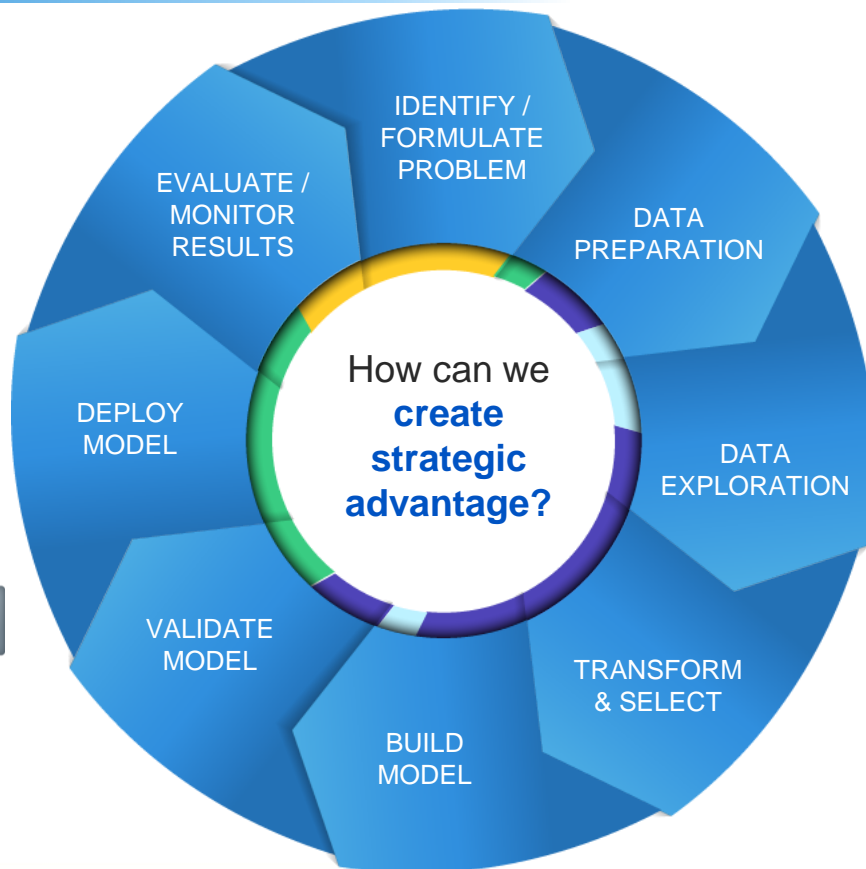


Domain Expert  
Makes Decisions  
Evaluates Processes and ROI

## IT SYSTEMS / MANAGEMENT



Model Validation  
Model Deployment  
Model Monitoring  
Data Preparation



## BUSINESS ANALYST



Data Exploration  
Data Visualization  
Report Creation

## DATA MINER / STATISTICIAN



Exploratory Analysis  
Descriptive Segmentation  
Predictive Modeling



## Overview:

Two-day on-site discovery session focused on understanding the client's business and IT objectives, key initiatives, existing information management and analytics architecture, top challenges, and priorities.

## Process:

- Review current business requirements, timeframes, critical success factors, and key business metrics (e.g. customer retention, customer acquisition).
- Review operational data sources to support business priorities.
- Review analytical priorities, strategy, process, and gaps.

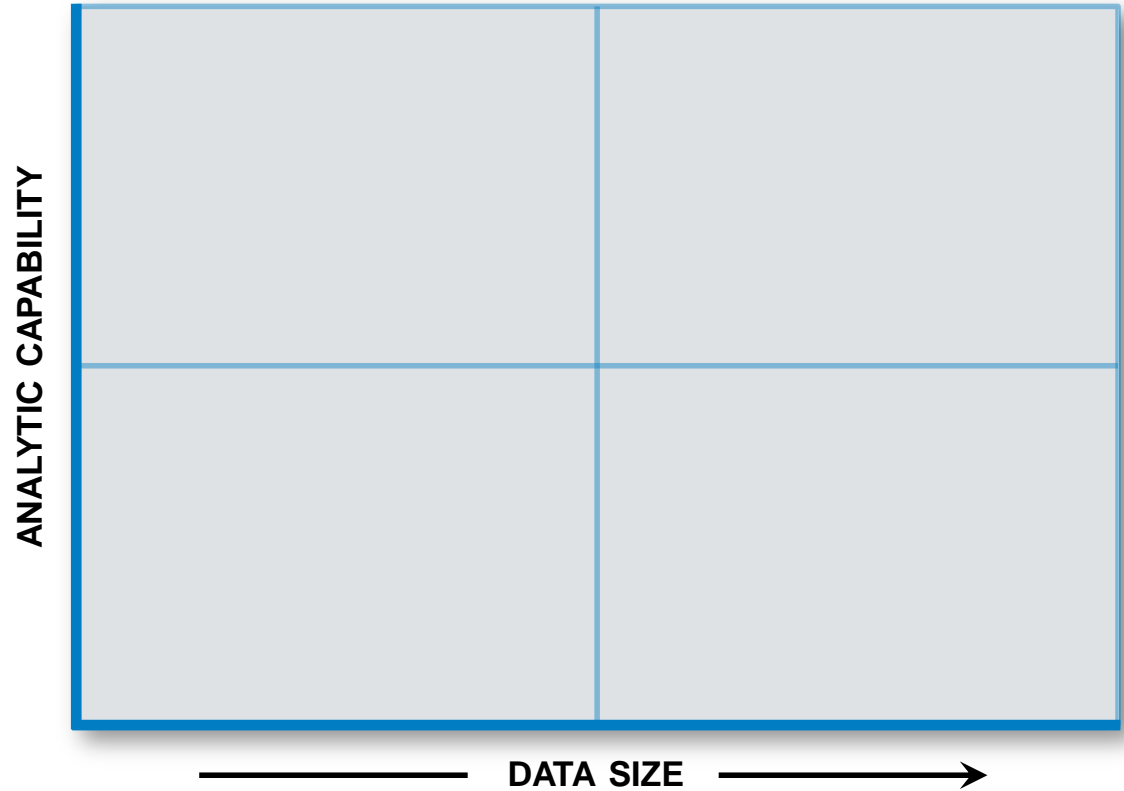
## Deliverables:

- Technology roadmap to optimize the client's current and future IT-enabled analytical process.
- Projected high-level ROI analysis resulting from proposed analytical architecture and process improvements.



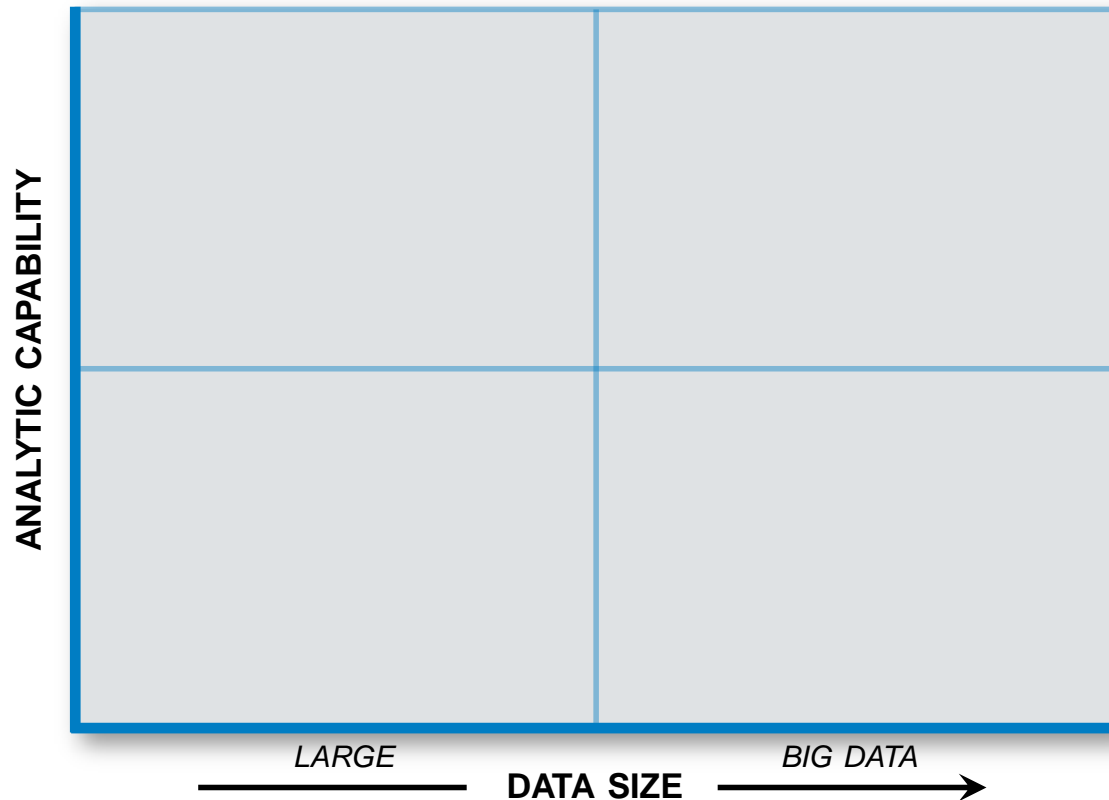
# CAPABILITY SEGMENTATION

## DATA SIZE AND ANALYTIC COMPETENCE



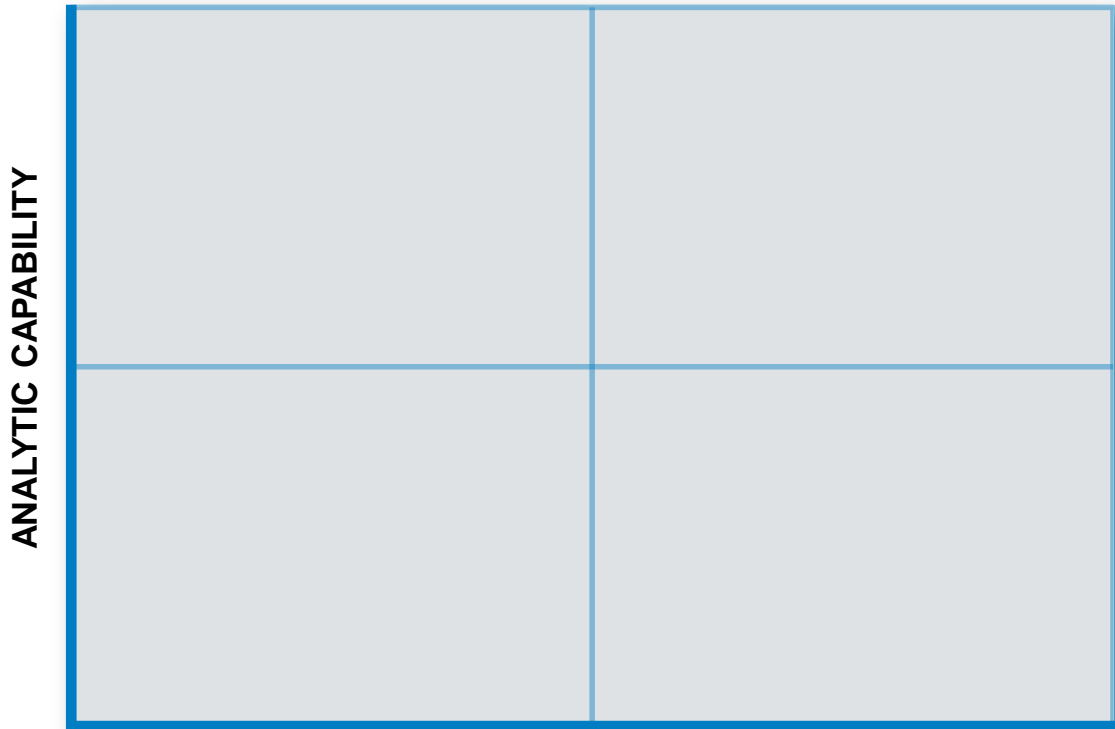
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### BIG DATA

*“Data that exceeds the processing capacity of conventional database systems.”*

# CAPABILITY SEGMENTATION

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# CAPABILITY SEGMENTATION

## DATA SIZE AND ANALYTIC COMPETENCE

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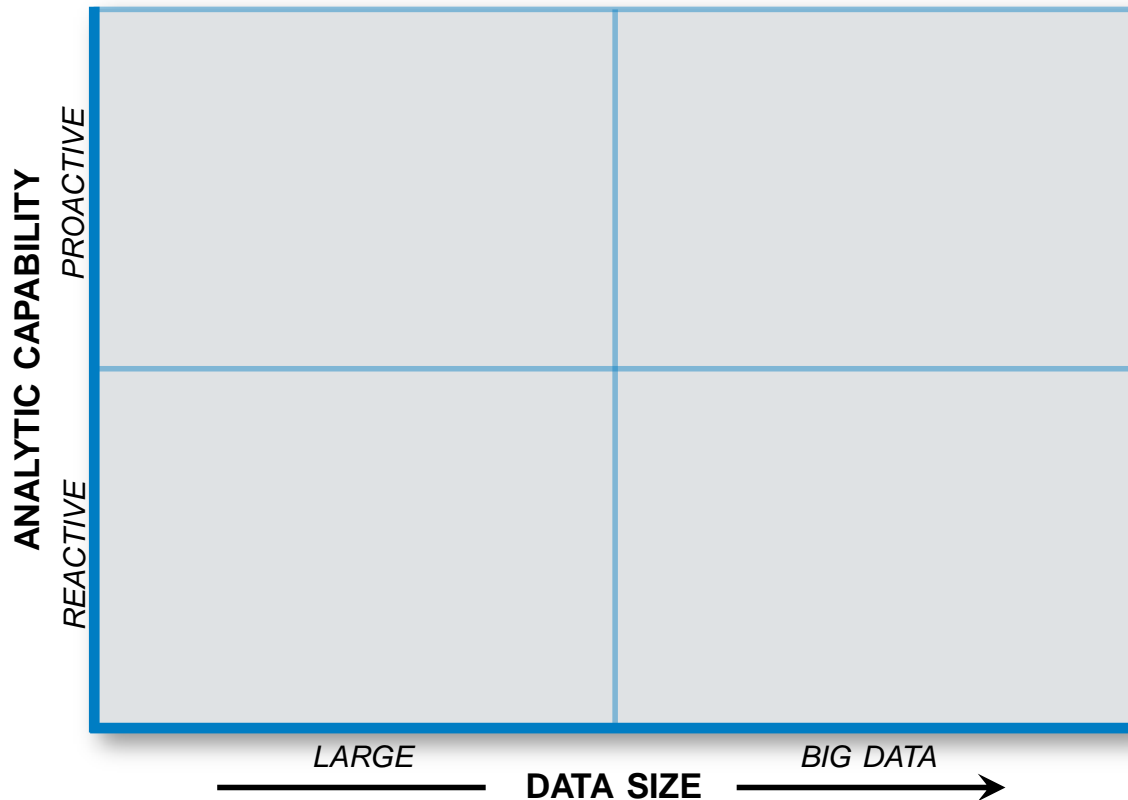
- Alerts
- OLAP
- Ad Hoc Reports
- Standard Reports

#### PROACTIVE

- Optimization
- Predictive Modeling
- Forecasting
- Statistical Analysis

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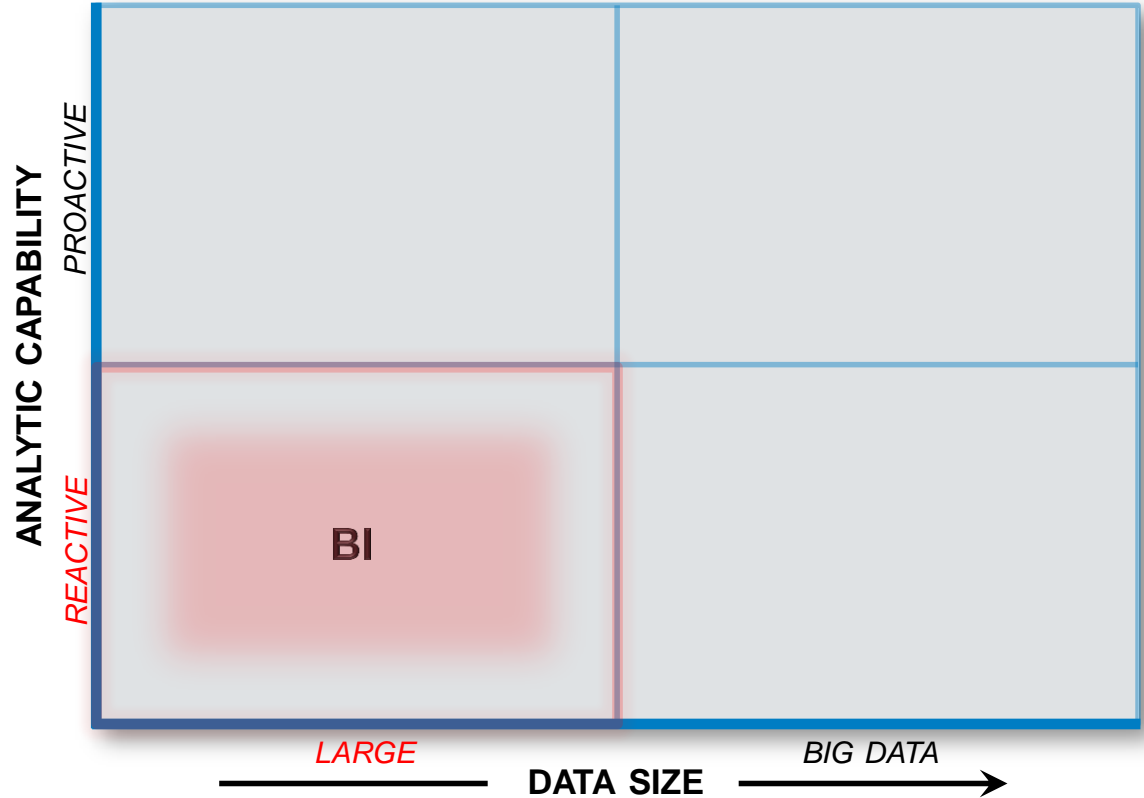
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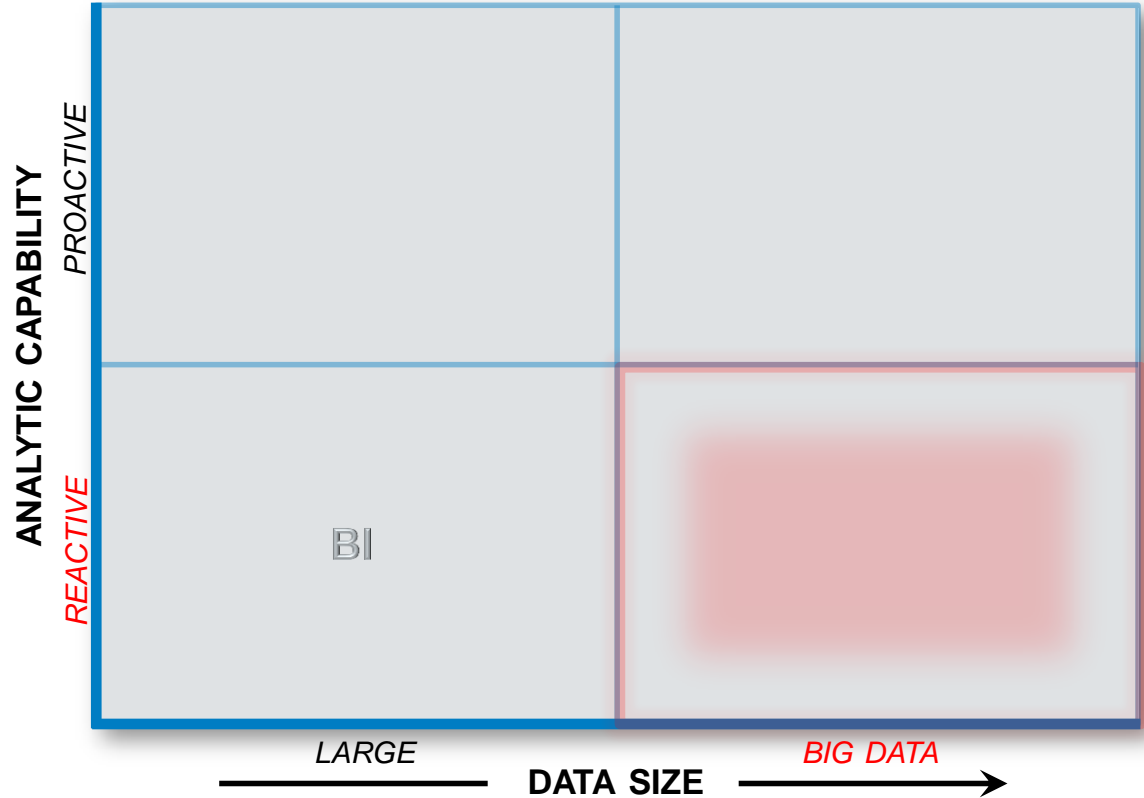
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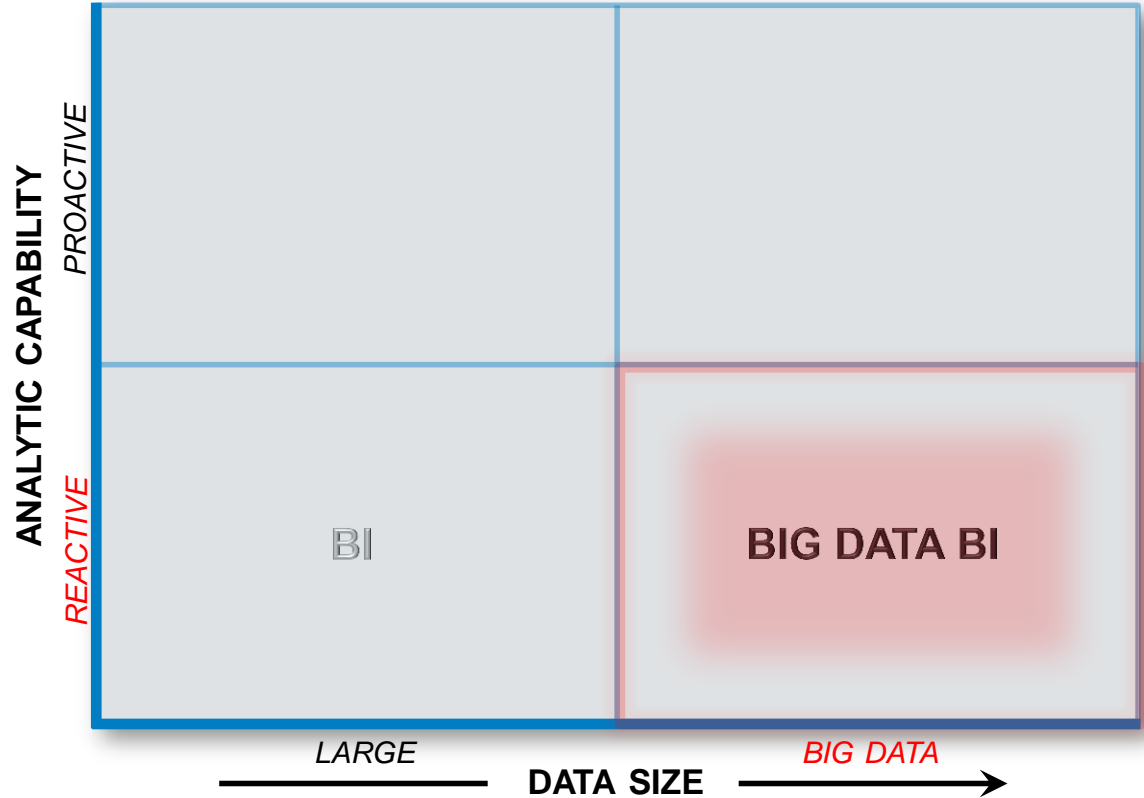
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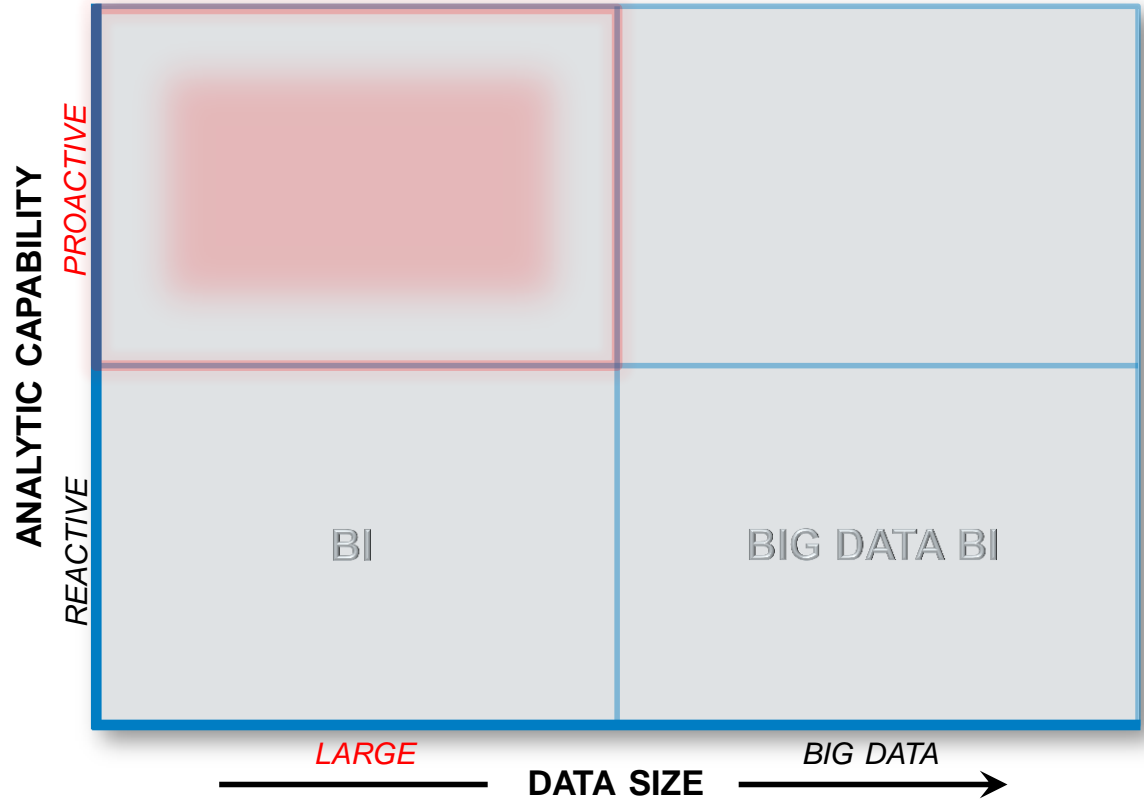
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## DATA SIZE AND ANALYTIC COMPETENCE



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## DATA SIZE AND ANALYTIC COMPETENCE

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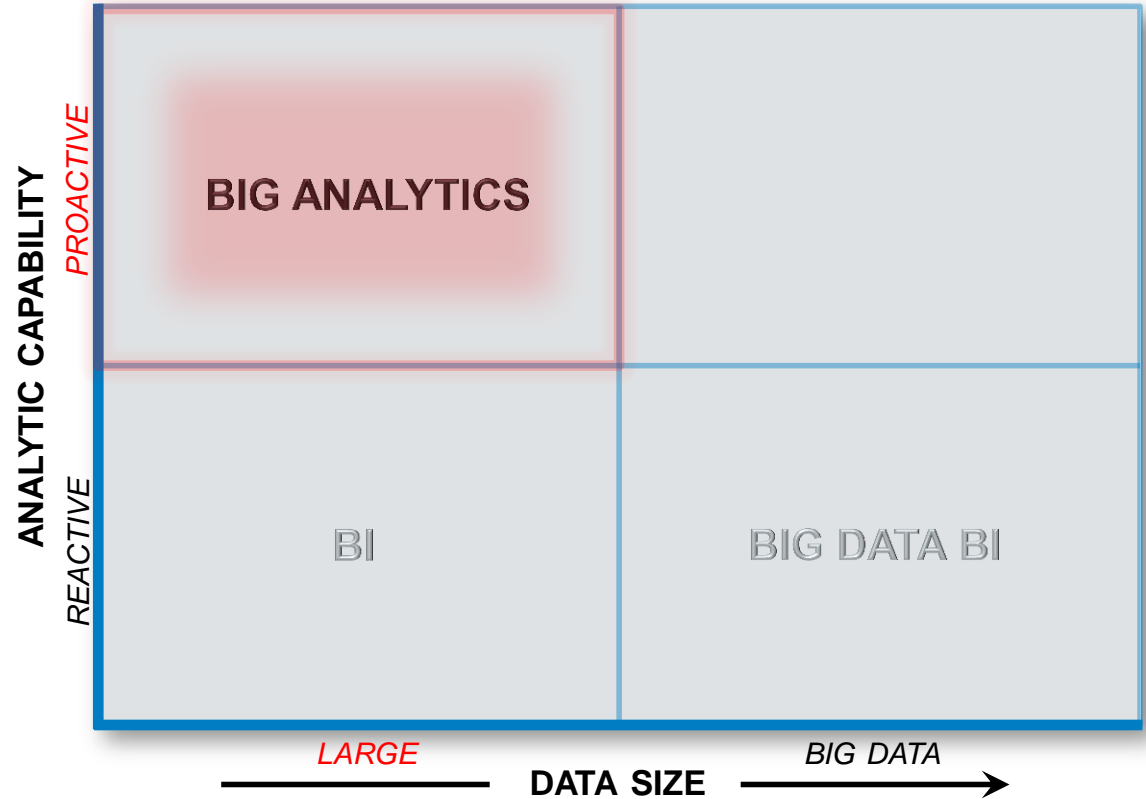
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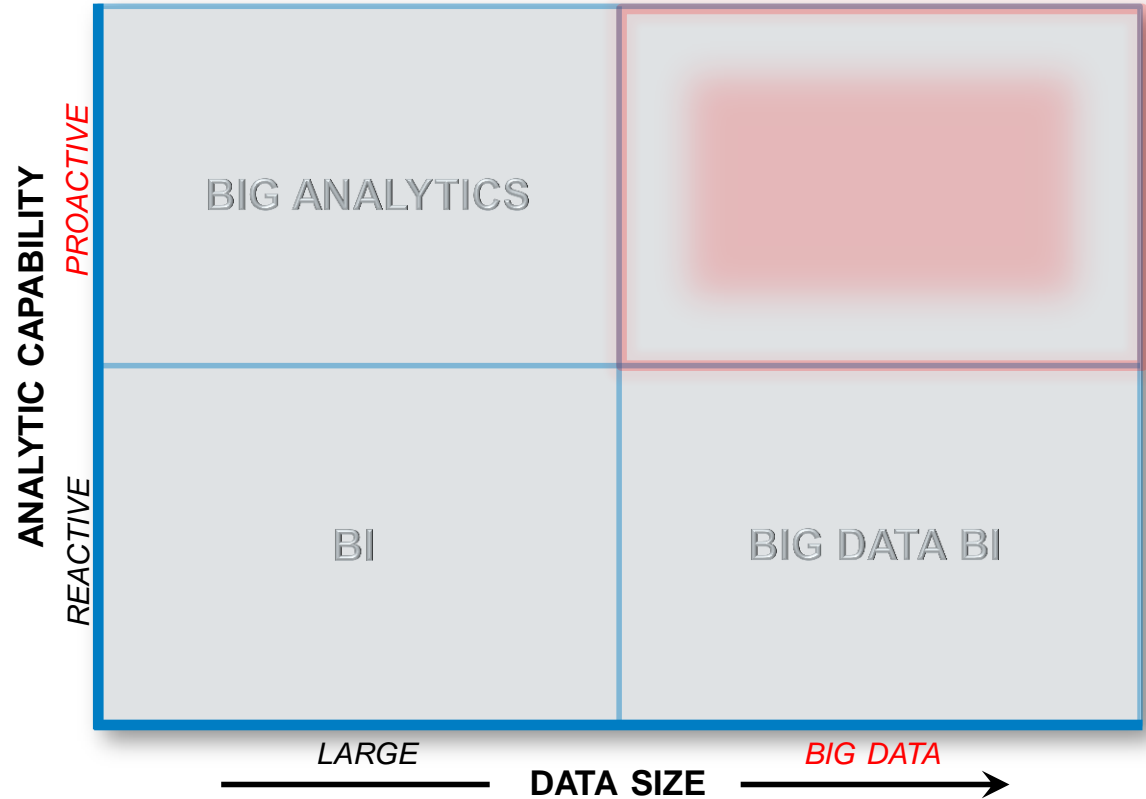
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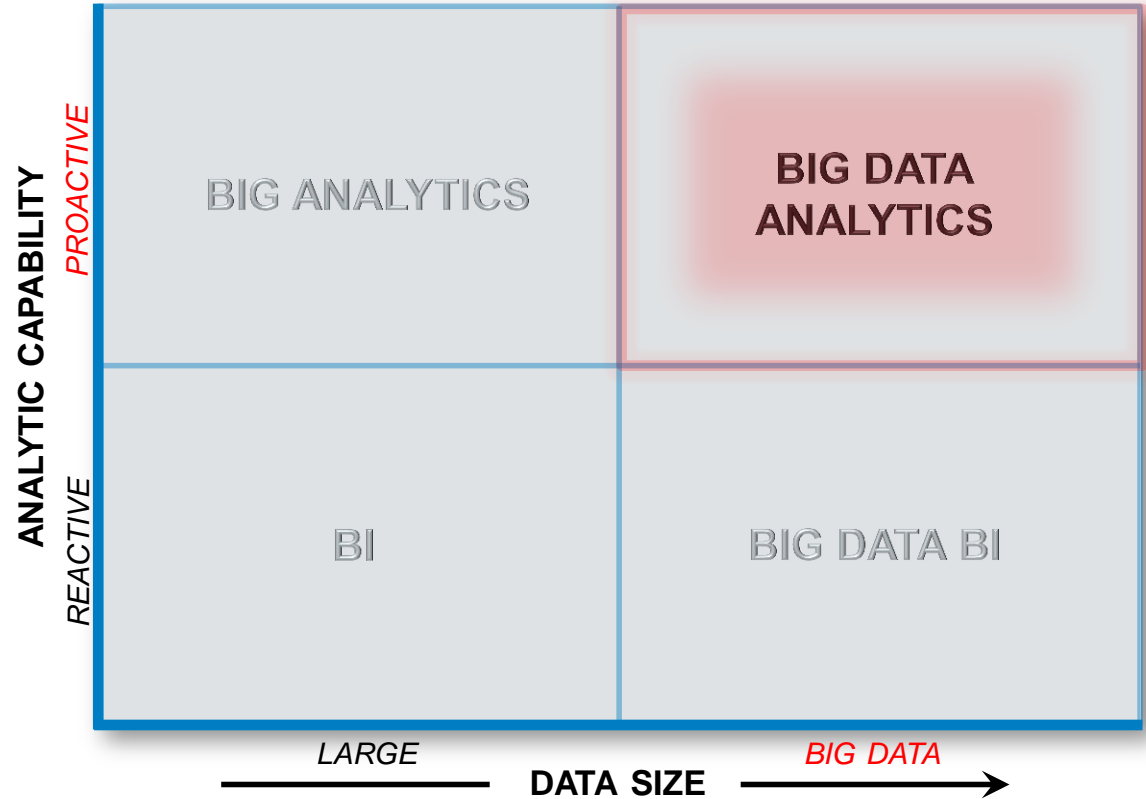
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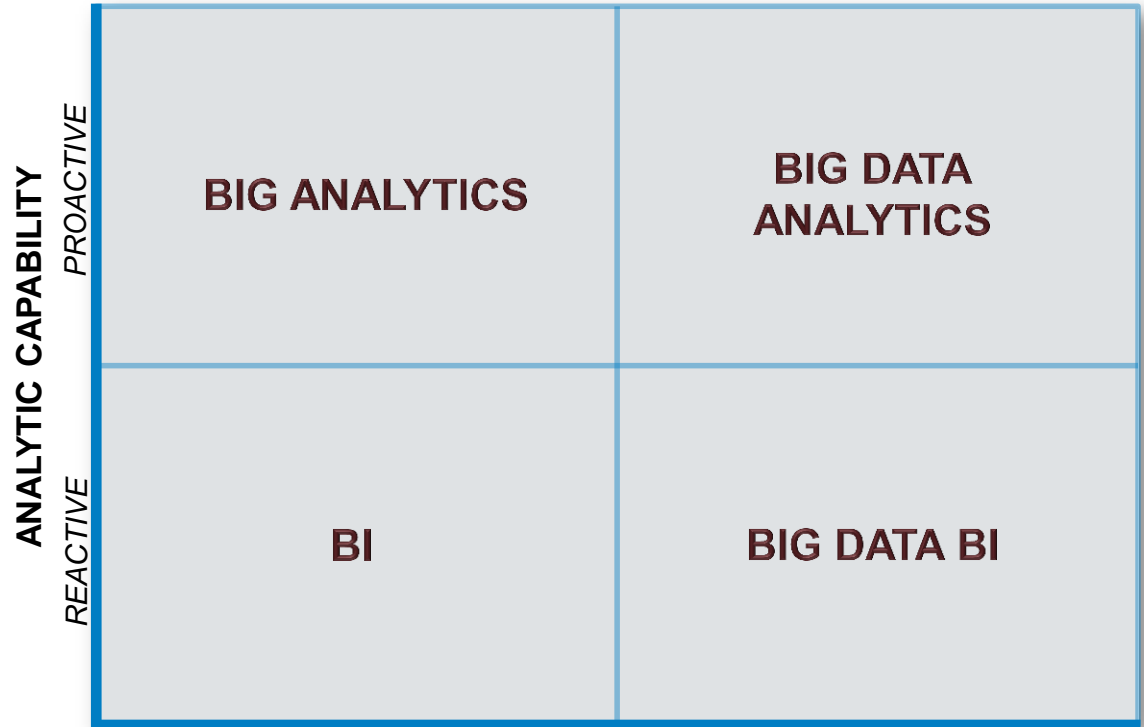
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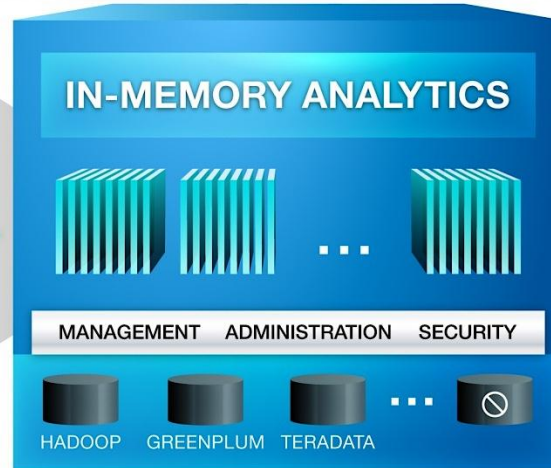
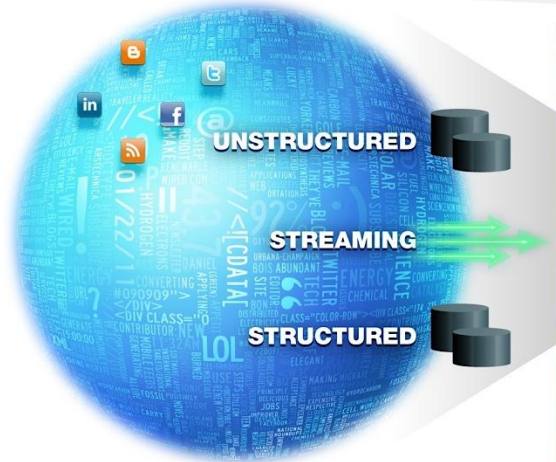
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LARGE DATA SIZE BIG DATA

# HIGH-PERFORMANCE ANALYTICS

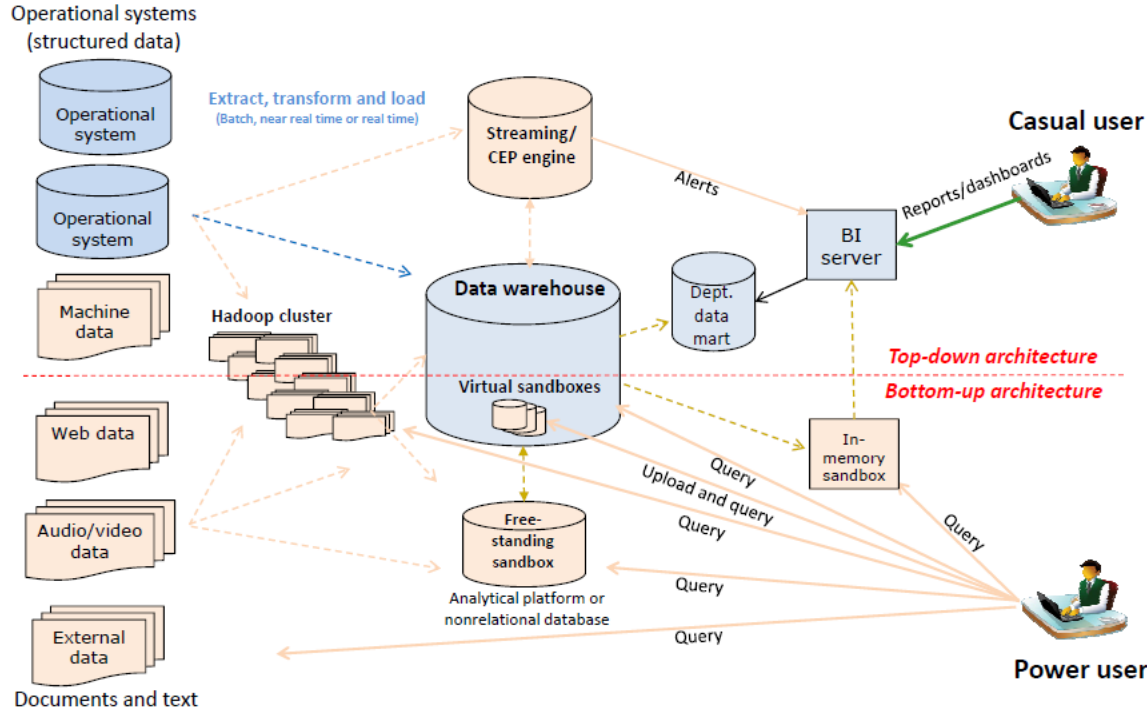
## SAS IN-MEMORY ANALYTICS

TOOLS	ANALYTICS	ANALYTIC APPLICATIONS
Data Visualization Reporting	Descriptive Statistics Predictive Analytics Model Development Text Mining Forecasting Optimization ...	Retail Planning Revenue Optimization Marketing Optimization Stress Testing Liquidity Risk Management Fraud Detection ...



# Future architecture

# “THE NEW ANALYTICAL ECOSYSTEM”



*The new analytical ecosystem brings business analysts into the mainstream, enabling them to conduct freeform analyses inside the corporate data infrastructure using a variety of analytical sandboxes.*

Source: “Exploiting Big Data” – BeyeNetwork Report by Wayne Eckerson



**SAS APPROACH** DECISIONS AT THE SPEED OF RIGHT

**ULTIMATELY, IT'S ABOUT MAKING  
BETTER DECISIONS FASTER ...**



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