Business Intelligence Concepts, Tools, and Applications

Week 2: Business Intelligence Concepts and Platform Capabilities
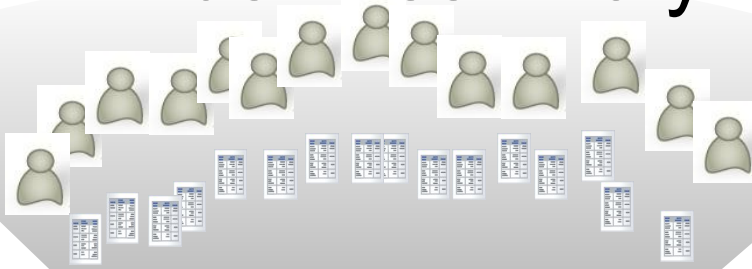
Lesson 2: BI Platform Capabilities

BI Platform Capabilities

- Learning objectives
  - Identify the main components of BI platforms capabilities
  - Understand the competitive landscape of BI Platforms

BI Platform is the Key Component of Business Analytic Applications

Business Intelligence Applications

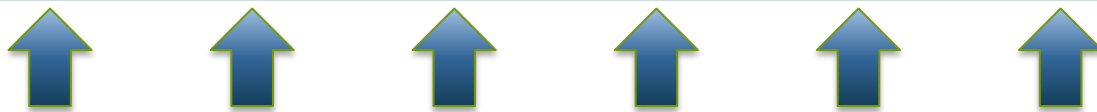| Data Mining & Predictive Analysis	OLAP Analysis	Data Discovery	Dashboards & Scorecards	Enterprise Reporting	Transaction Services	Mobile Apps & Alerting

Business Intelligence Platform

MapReduce Databases &

Columnar Databases

cloudera
SAND
amazon web services
MySQL
IBM DB2
EXASOL Excellent data experts.
INFOBRIGHT
ORACLE Exadata
TERADATA
IBM Informix
SAP
hadoop
EMC GREENPLUM HD
vectorwise
kognitio Competitive advantage from data
GREENPLUM
ORACLE
salesforce
VERTICA
NETEZZA An IBM Company
Microsoft SQL Server
Hyperion
PostgreSQL
aster data more data. big insights.
Sybase IQ
PAR ACCEL
Microsoft SQL Server 2008 R2 Parallel Data Warehouse
SAP HANA
SYBASE
COGNOS AN IBM COMPANY TM1

Analytic Applications

Customer Analysis
• Customer Segmentation
• Customer Profitability
• Cross-sell / Up-sell

Supply Chain Management
• Inventory Analysis
• Fulfillment Analysis
• Distribution Cost Analysis

Financial Reporting Analysis
• P&L Reporting
• Profitability Analysis
• Financial Compliance Analysis

Product Management
• Product Performance Analysis
• Market Basket Analysis
• Category Management

Vendor Performance Analysis
• Service Level Agreement
• Chargeback Analysis
• Relative Sales Analysis

Risk Analysis
• Risk Management
• Portfolio Risk Analysis
• Fraud Detection

Operations Analysis
• Productivity Reporting
• HR Reporting
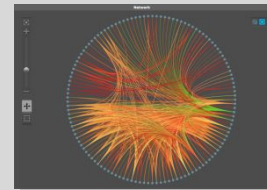• Web Commerce Analysis

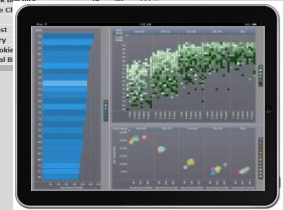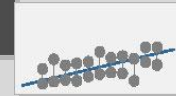# The Full Spectrum of Business Intelligence in One Seamlessly Integrated Platform

ANALYZE
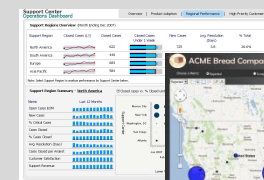- Predictive Analytics
- OLAP Analysis
- Data Discovery

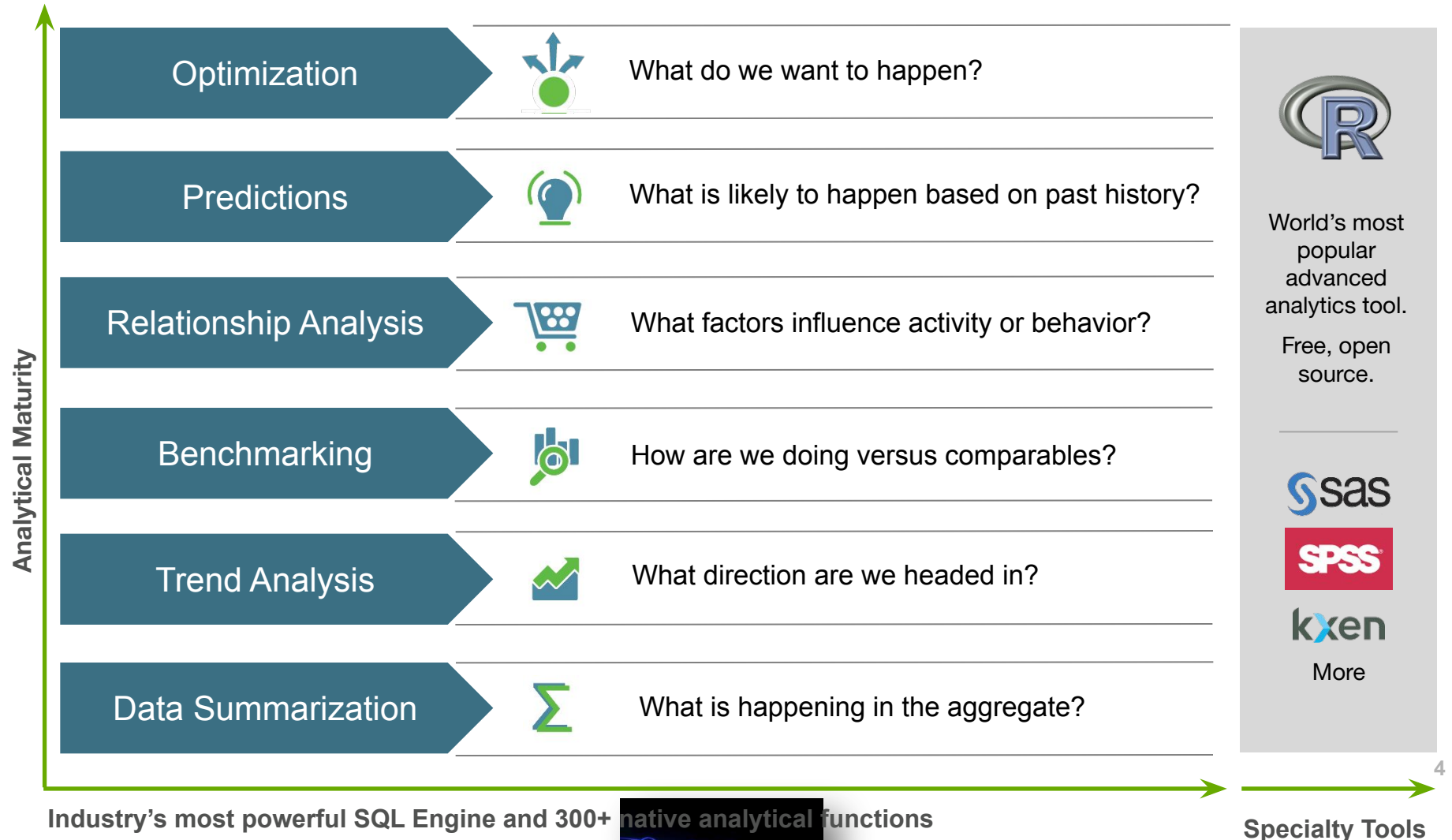## MONITOR
- Enterprise Reports
- Dashboards

ACT
- Alerts
- Transactions

Predictive Analytics – Full Range Under One Roof

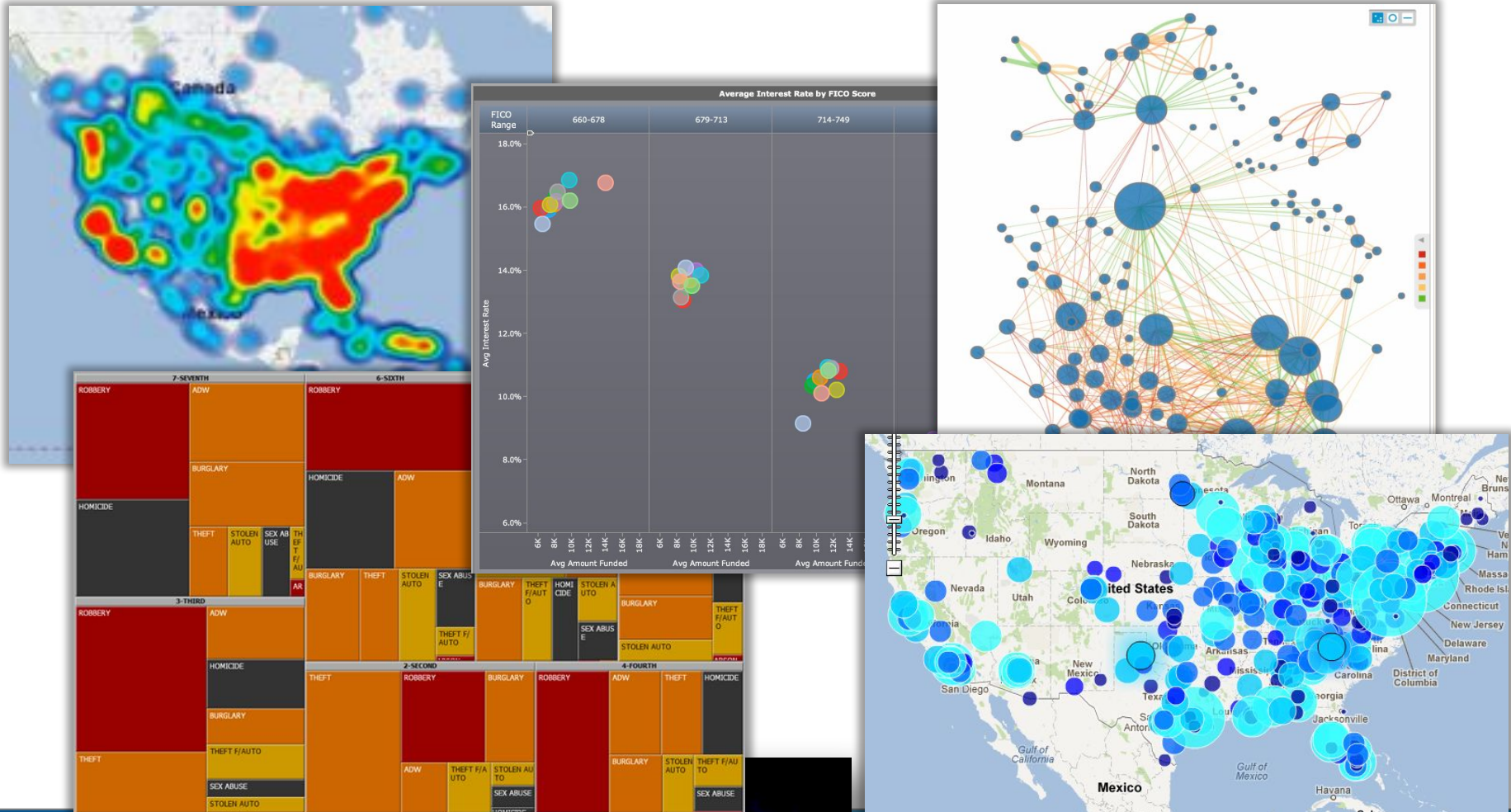Climb the Analytical Maturity Model to Outsmart and Outperform Competitors

Analytical Maturity

Optimization	What do we want to happen?
Predictions	What is likely to happen based on past history?
Relationship Analysis	What factors influence activity or behavior?
Benchmarking	How are we doing versus comparables?
Trend Analysis	What direction are we headed in?
Data Summarization	What is happening in the aggregate?

World's most popular advanced analytics tool.

Free, open source.

SSas

SPSS

kxen

More

Industry's most powerful SQL Engine and 300+ native analytical functions

Specialty Tools

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OLAP Analysis

- Enables users to gain insight into multi-dimensional data cube structure through fast, consistent, and interactive access.

- Commonly used OLAP operations include
  - *Slice and Dice*
  - *Drill down/ Roll up*
  - *Pivot / Rotate*

Data Discovery and Visualization Give Meaning to Otherwise Raw, Hard to Understand Data

Experiment with insightful visualizations to find patterns, trends, and relationships

Enterprise Reporting: Delivering the Complete Range

Print-perfect Operational Reports
- Via Web and Print
- Easy Navigation Through Hundreds of Report Pages
- Parameter Prompting Lets Users Specify Report Content

Pixel-perfect Business Reports
- Created by Business Users, not IT
- Integrated Tables and Graphs
- Powerful Reports for Presentation or Publication

Page-perfect Invoices and Statements
- On-line Billing Applications
- Statements
- Other Page Forms

Pervasive Personalized Scorecards and Dashboards for Monitoring Performance
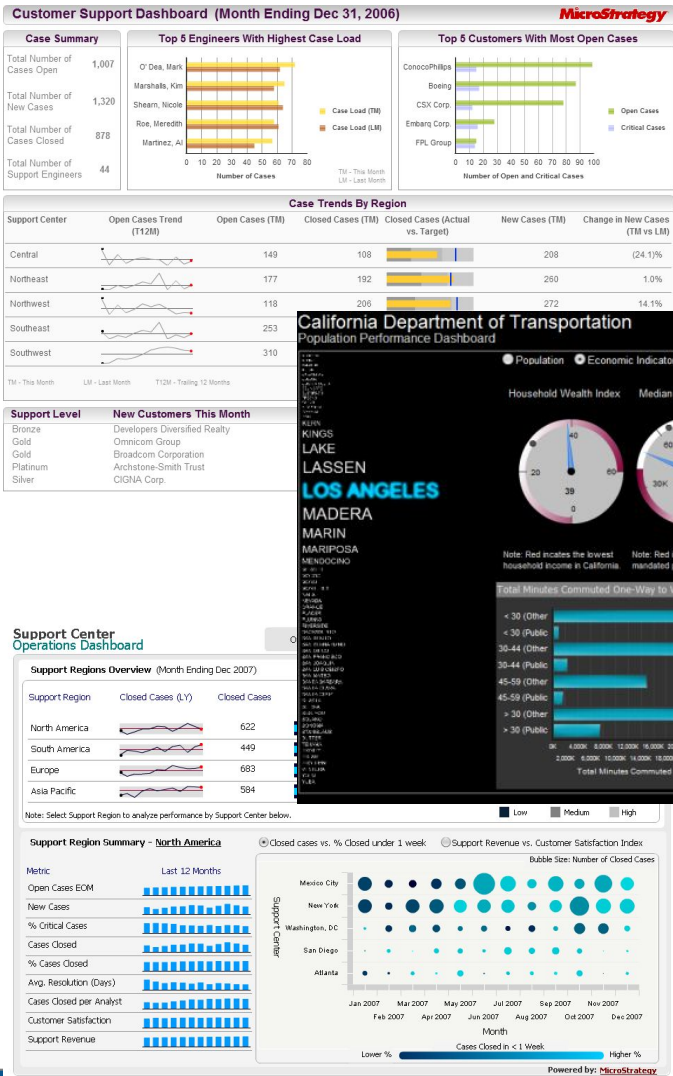
Dashboards
- Consume Information Easily With Gauges And Dials
- Integrated View of Data Across the Enterprise
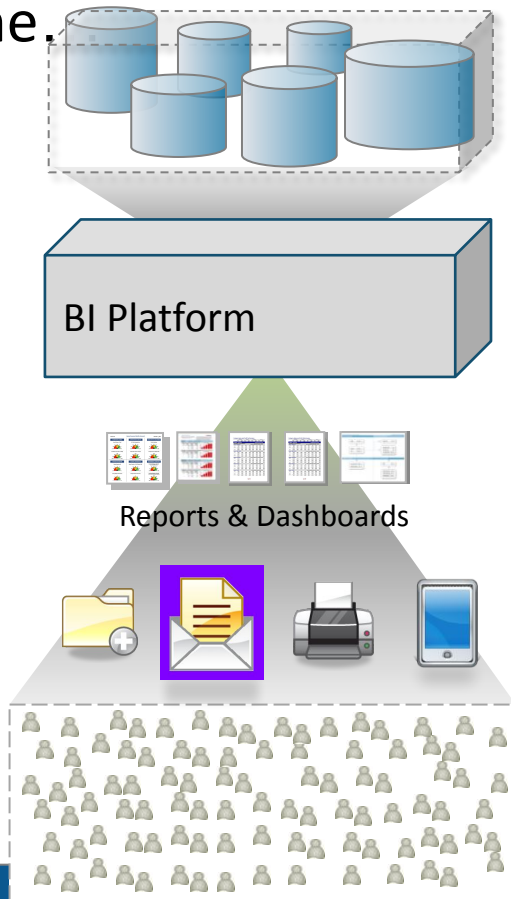
Scorecards
- Use Formal Scorecard Methodologies
- Drill Down to View Group/ Employee Performance Scorecards

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Alerting and Proactive Notification Delivers Information via E-Mail, Print, or File

High-volume, high-efficiency information distribution engine.

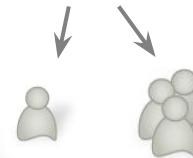… that also allows delivering the right information to the right person at the right time

Reports & Dashboards

BI Platform

Time-based

Event-based

Send Now

Data-Driven Alert Trigger

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Turn Insight into Action
From Any Web Browser or a Mobile Device

Extend Business Analytic Applications to Allow Real-time Decision Making
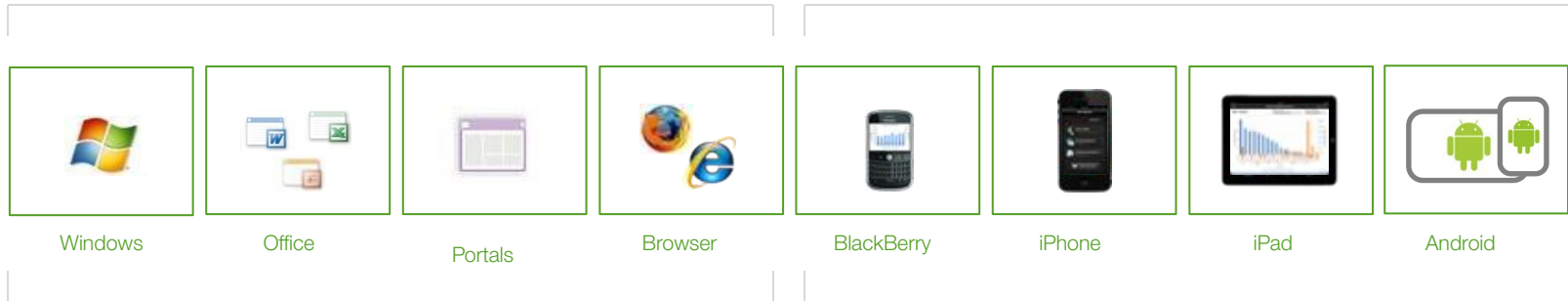

- Enter sales leads
- Update churn probabilities
- Modify inventories
- Cancel orders
- Approve expense, time-off requests
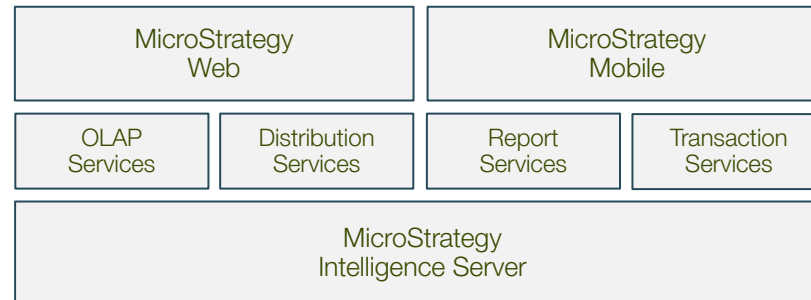- Submit employee reviews
- Complete surveys
- And many more…

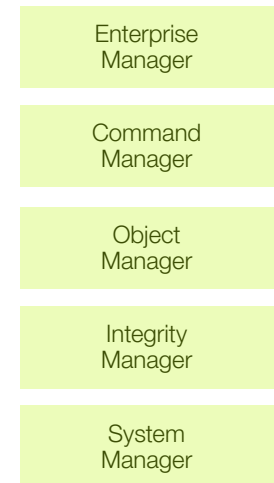# An Enterprise Grade Business Intelligence Platform

Desktop / Laptop

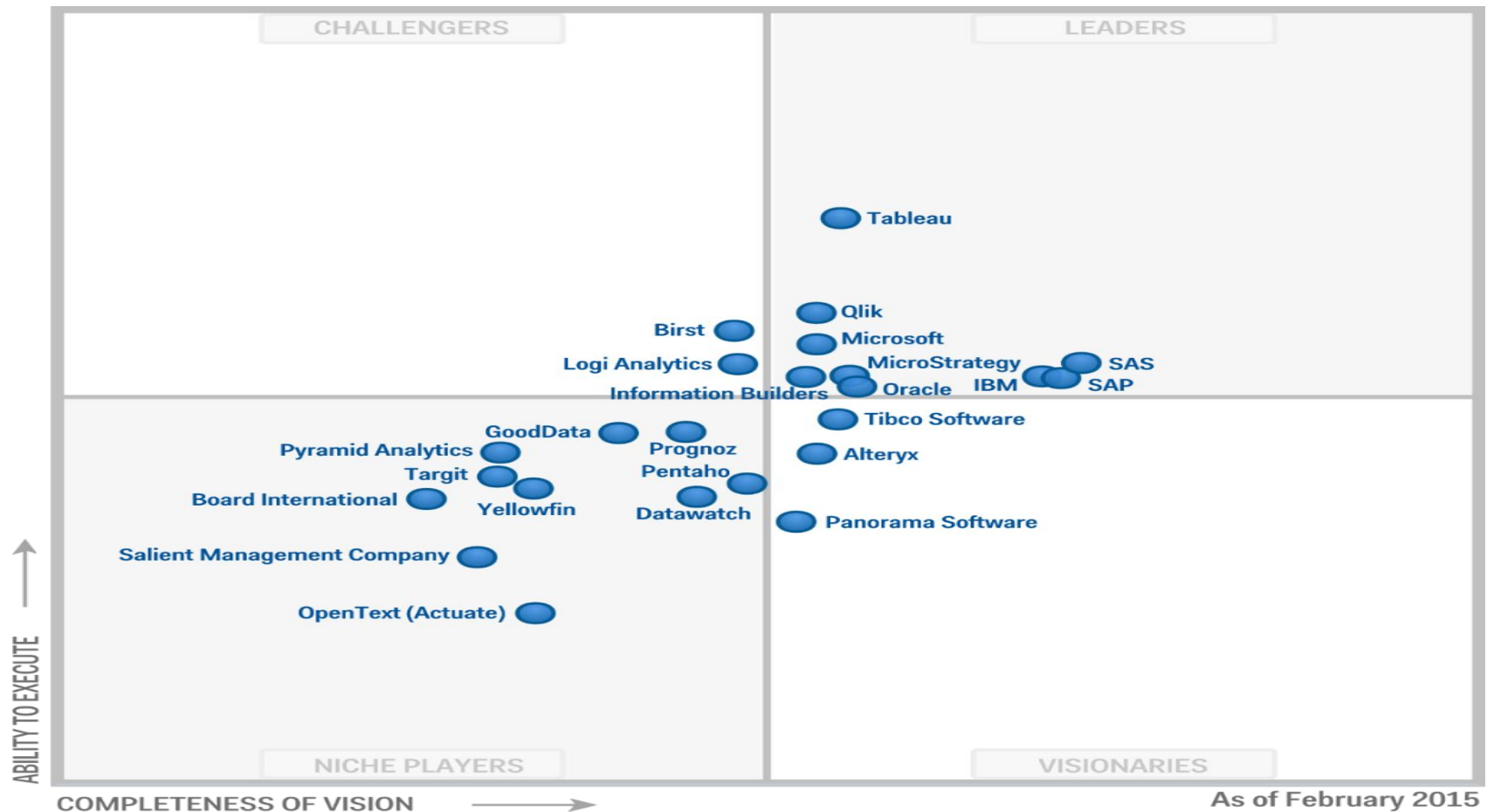Windows | Office | Portals | Browser

Mobile

BlackBerry | iPhone | iPad | Android

Full Spectrum Of **Development Tools**
- Web Professional
- Developer
- Architect
- SDK

MicroStrategy Web
MicroStrategy Mobile

OLAP Services | Distribution Services | Report Services | Transaction Services

MicroStrategy Intelligence Server

Full Spectrum Of **Admin Tools**
- Enterprise Manager
- Command Manager
- Object Manager
- Integrity Manager
- System Manager

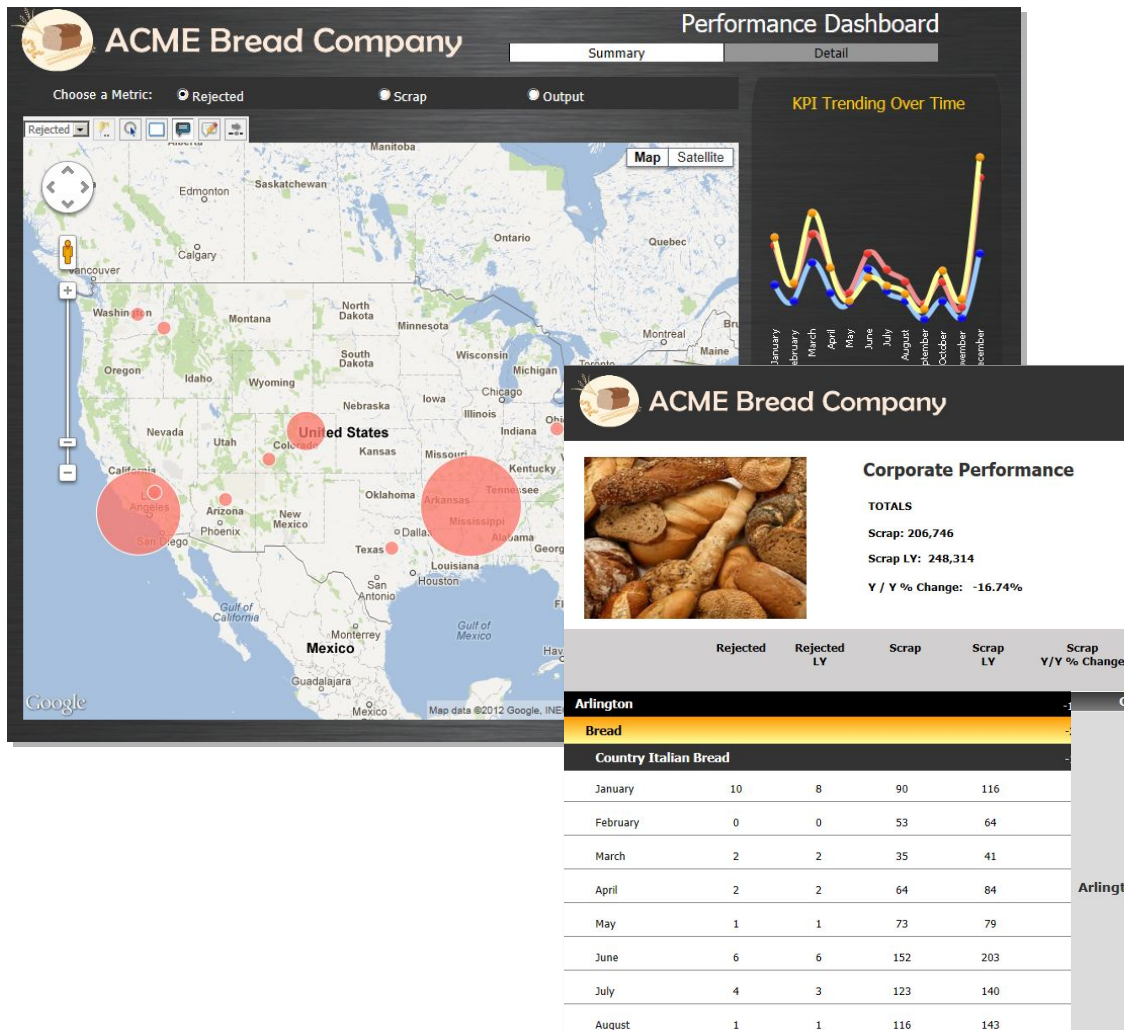# Magic Quadrant for Business Intelligence and Analytics Platforms

Source: Sallam, R. L., Hostmann, B, Schlegel, K., Tapadinhas, J., Parenteau, J., Thomas W. Oestreich, T. W. Magic Quadrant for Business Intelligence Platforms (Links to an external site.) Gartner.com, February 23, 2015

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Hands-on Activity #2
Seamless Navigation Across All 7 BI Styles

- **Dashboards**
- **Advanced Visualizations**
- **Enterprise Reports**
- **OLAP Grid Reports**
- **Custom Analytics**