IBM

Business Analytics

Editable Text Editable
Text Editable Text

Business Analytics software

Watson answers a grand challenge

computing system that rivals a human's ability to answer questions posed in natural language in real-time

What could you achieve if ...

you had all the answers before anyone else?

you knew how you were doing?
And why you were doing it?

you knew what you should be doing to win?

IBM

Business Analytics

Better
Outcomes

Smarter
Decisions

Actionable
Insights

Relevant
Information

Analytics correlates to performance

3x

5.4x

Organizations that lead in analytics outperform those who are just beginning to adopt analytics

Top Performers are more likely to use an analytic approach over intuition*

*within business processes

Better Business Outcomes

$300 Million
in savings
& fraud reduction

80% increase
in productivity
savings

$200 Million
increase in
working capital

$24 Million
in reduced waste
and fraud

600% increase
in cross-sell
campaign

40% decline
in homicide
rates

CIO #1 Concern

Business Analytics 83%

Virtualization 76%

71%

66%

Self-service

Application Harmonization
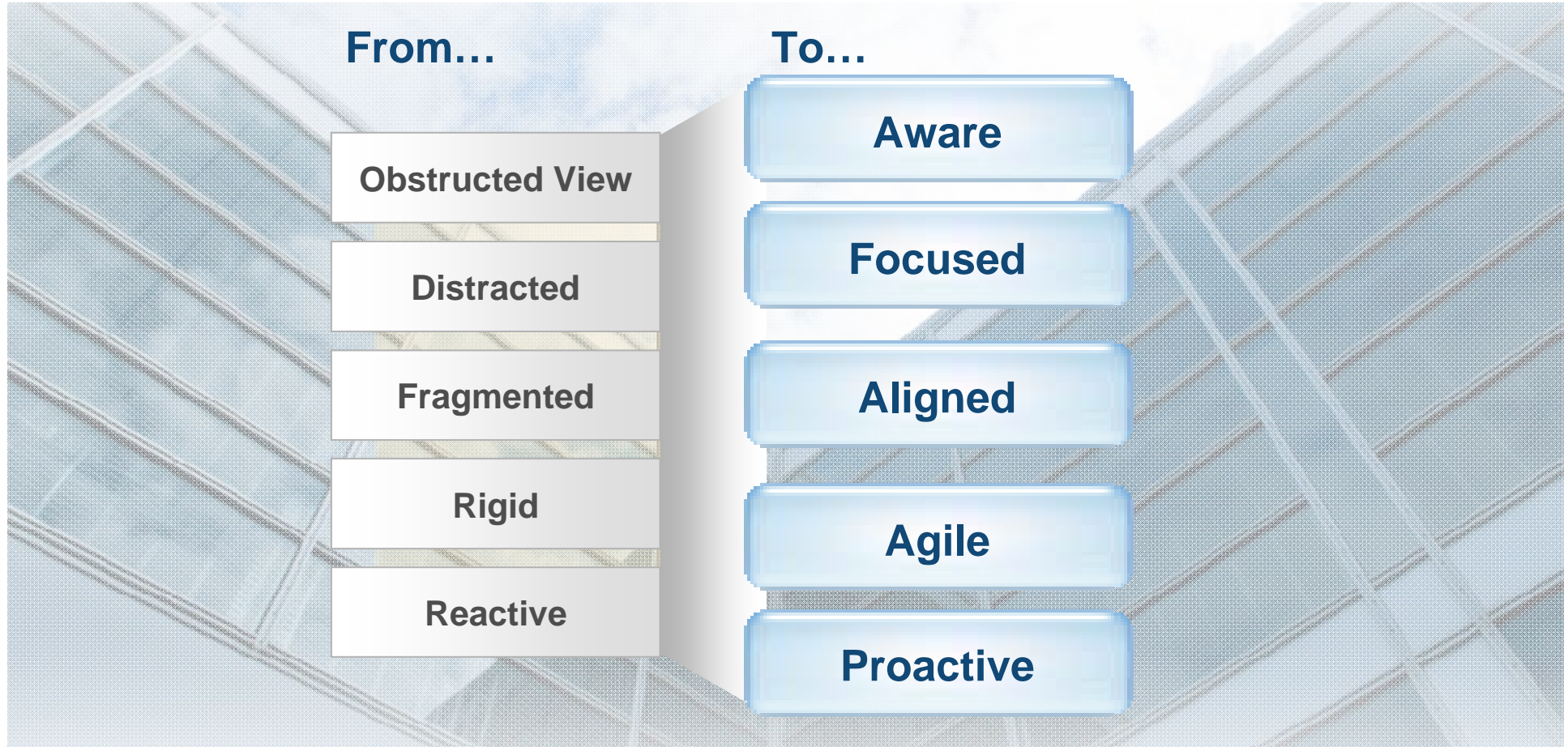
Business Process Management 64%

SOA / Web Services 61%

Unified Communications 60%

Business Analytics

83%

Analytics Driven Organizations Have Insight to…..

Becoming Analytics Driven

From…

To…

Obstructed View	Aware
Distracted	Focused
Fragmented	Aligned
Rigid	Agile
Reactive	Proactive

Analytics-driven
Organizations Can…

arvato services
BERTELSMANN

Anticipate demand

…and immediately match it to supply

- **End-end supply chain monitoring**

- **Automated, store-specific product replenishing**

Analytics-driven Organizations Can…

Increase

…rapidly respond to opportunity

- **Precise customer contribution margins**

- **Reduced operating costs**

Analytics-driven Organizations Can…
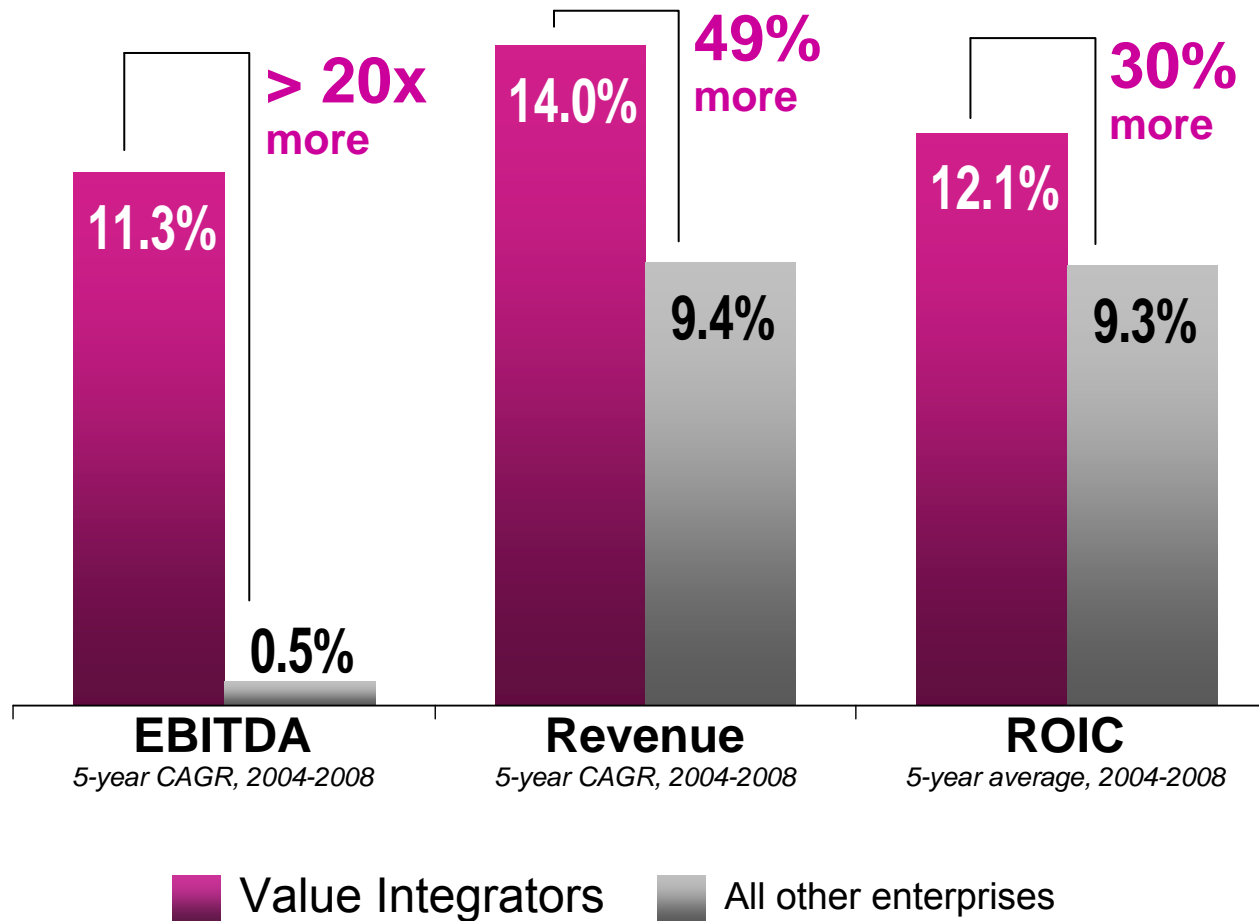
Detect patterns

…stop crime before i[t]

- **Higher case closings**
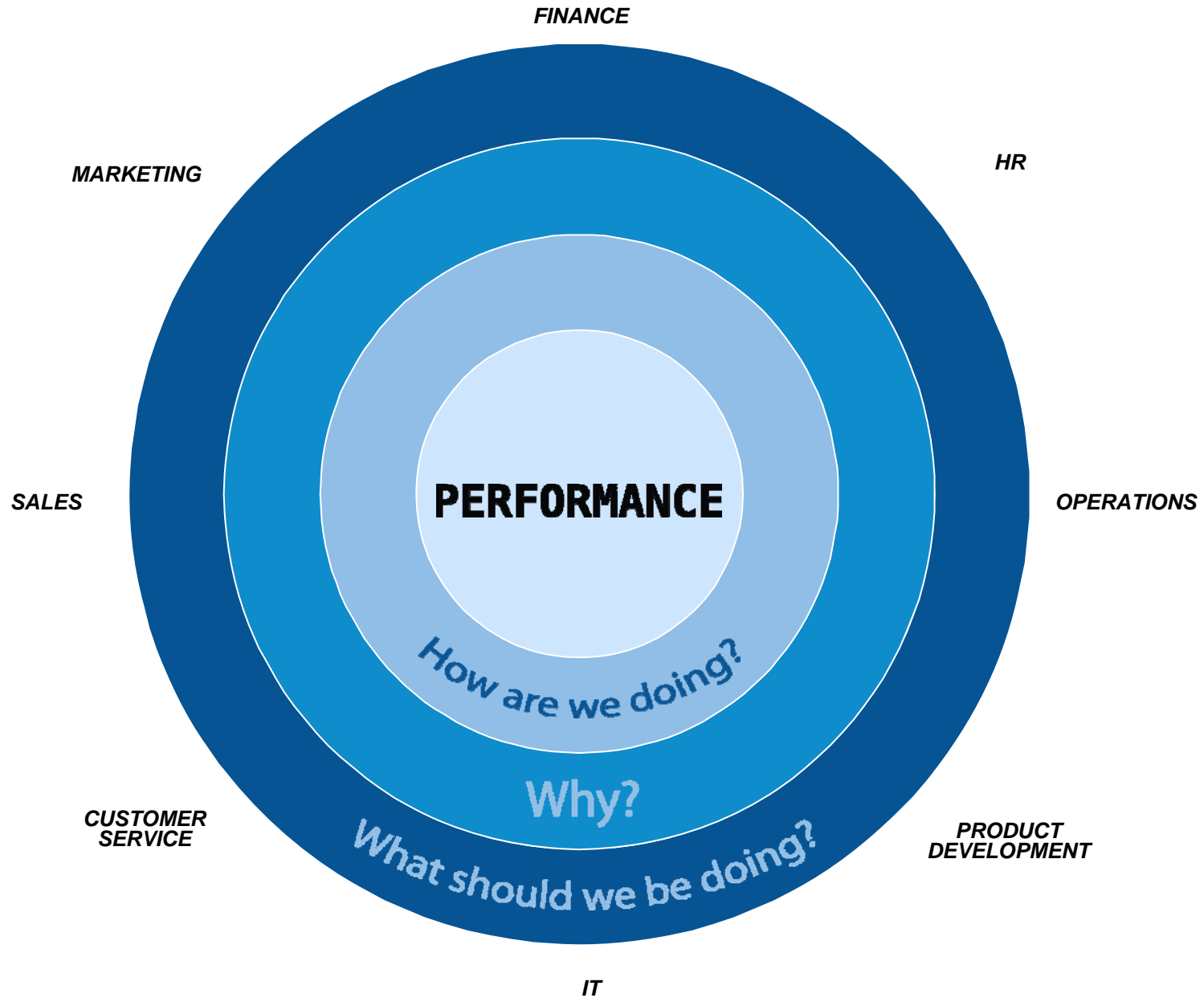
- **Improved officer safety and resource allocation**
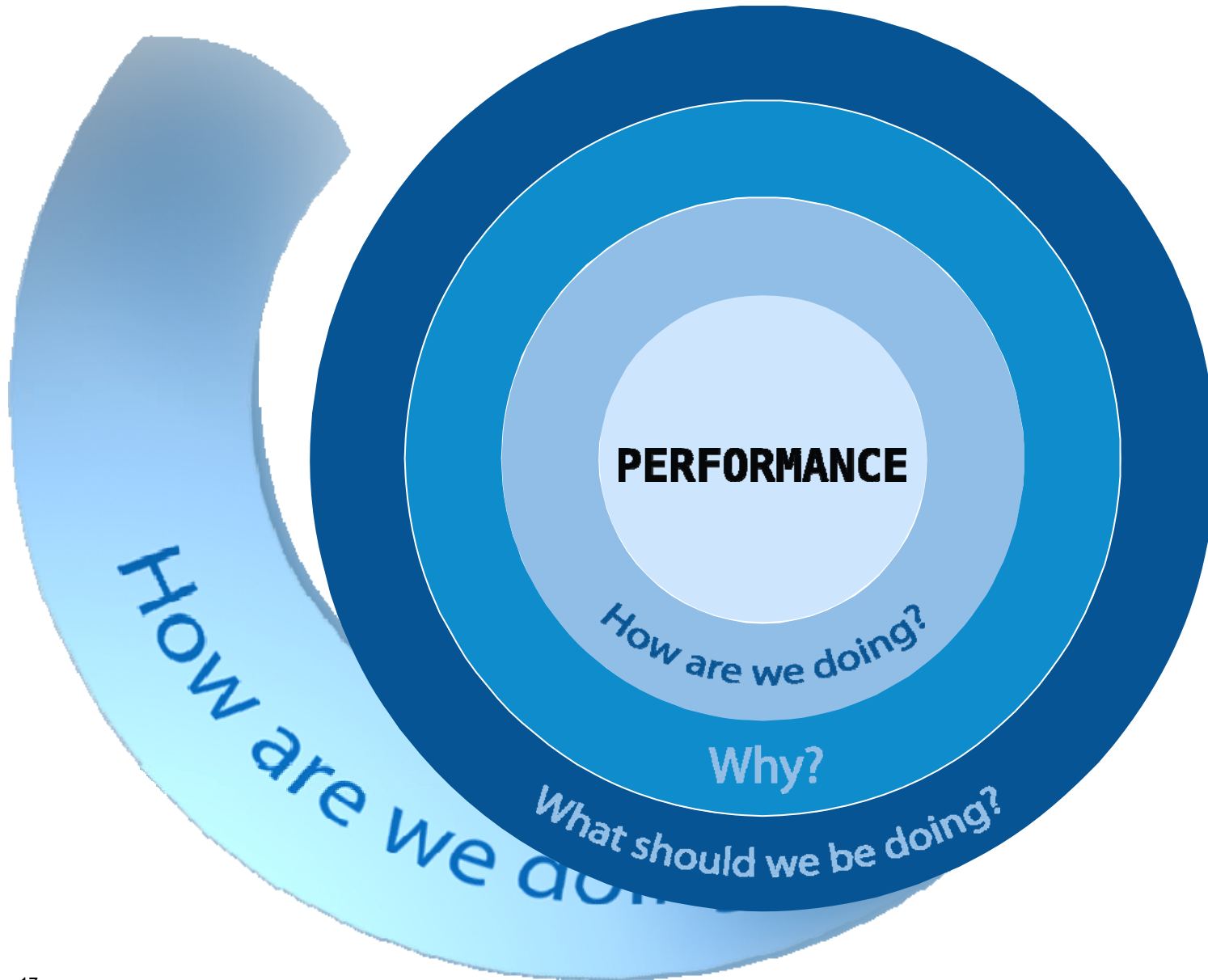
Analytics-Driven Organizations Outperform
Efficiency + Business Insight Contributes to Better Financial Performance

> 20x more

49% more

30% more

11.3%   14.0%   12.1%

0.5%   9.4%   9.3%

EBITDA
5-year CAGR, 2004-2008

Revenue
5-year CAGR, 2004-2008

ROIC
5-year average, 2004-2008

■ Value Integrators   ■ All other enterprises

14 Revenue Growth: N = 580; EBITDA: N = 531; ROIC: N = 501;
Source: IBM Institute for Business Value, The Global CFO Study 2010

Actionable Insights to Answer Key Questions

MARKETING

FINANCE

SALES

HR

How are we doing?

Why?

What should we be doing?

CUSTOMER
SERVICE

IT

PRODUCT
DEVELOPMENT

OPERATIONS

FINANCE

MARKETING

HR

SALES

PERFORMANCE

How are we doing?

Why?

What should we be doing?

OPERATIONS

CUSTOMER SERVICE

PRODUCT DEVELOPMENT

IT

PERFORMANCE

How are we doing?

Why?

What should we be doing?

How are we doing?

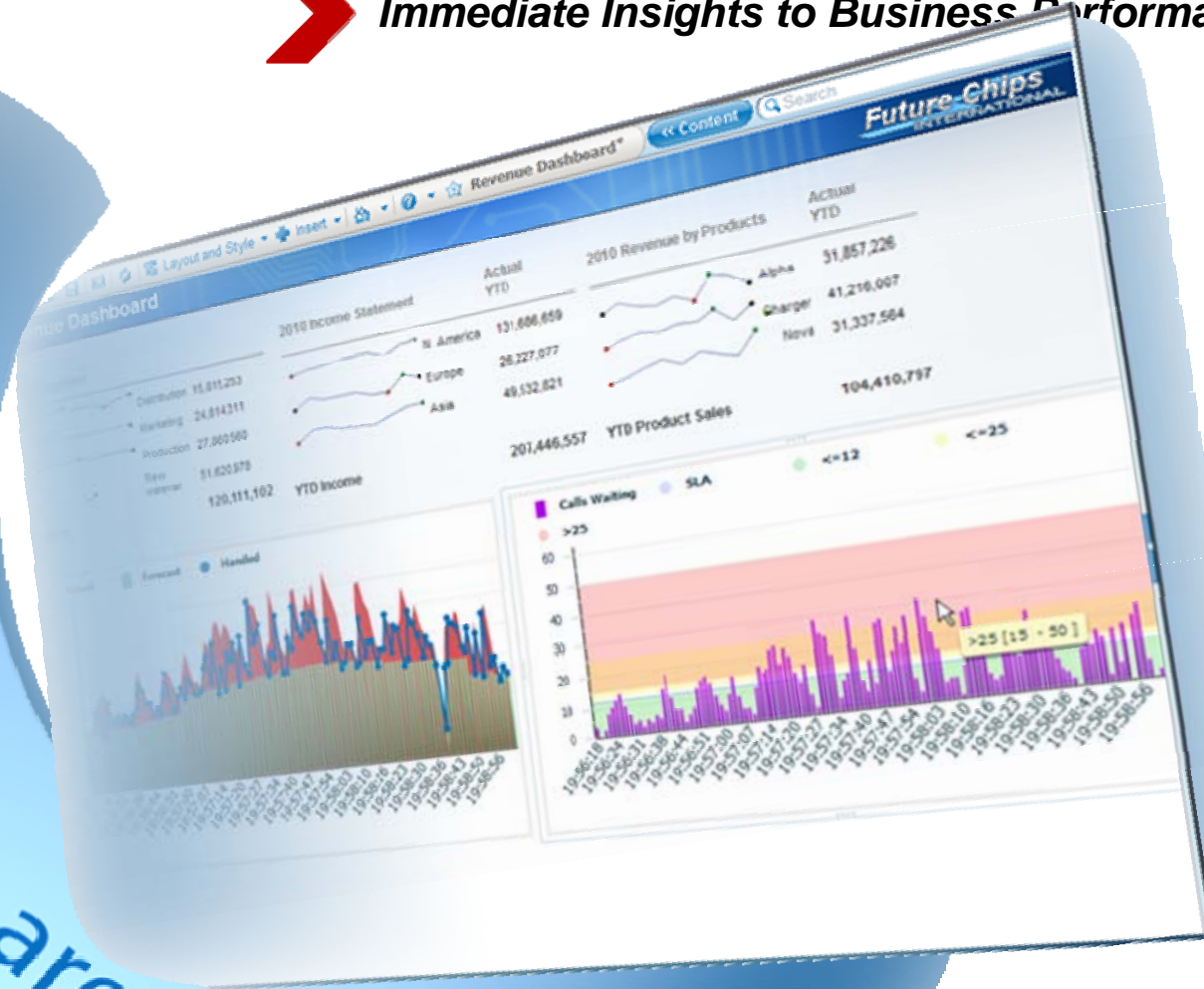> ### *Immediate Insights to Business Performance*
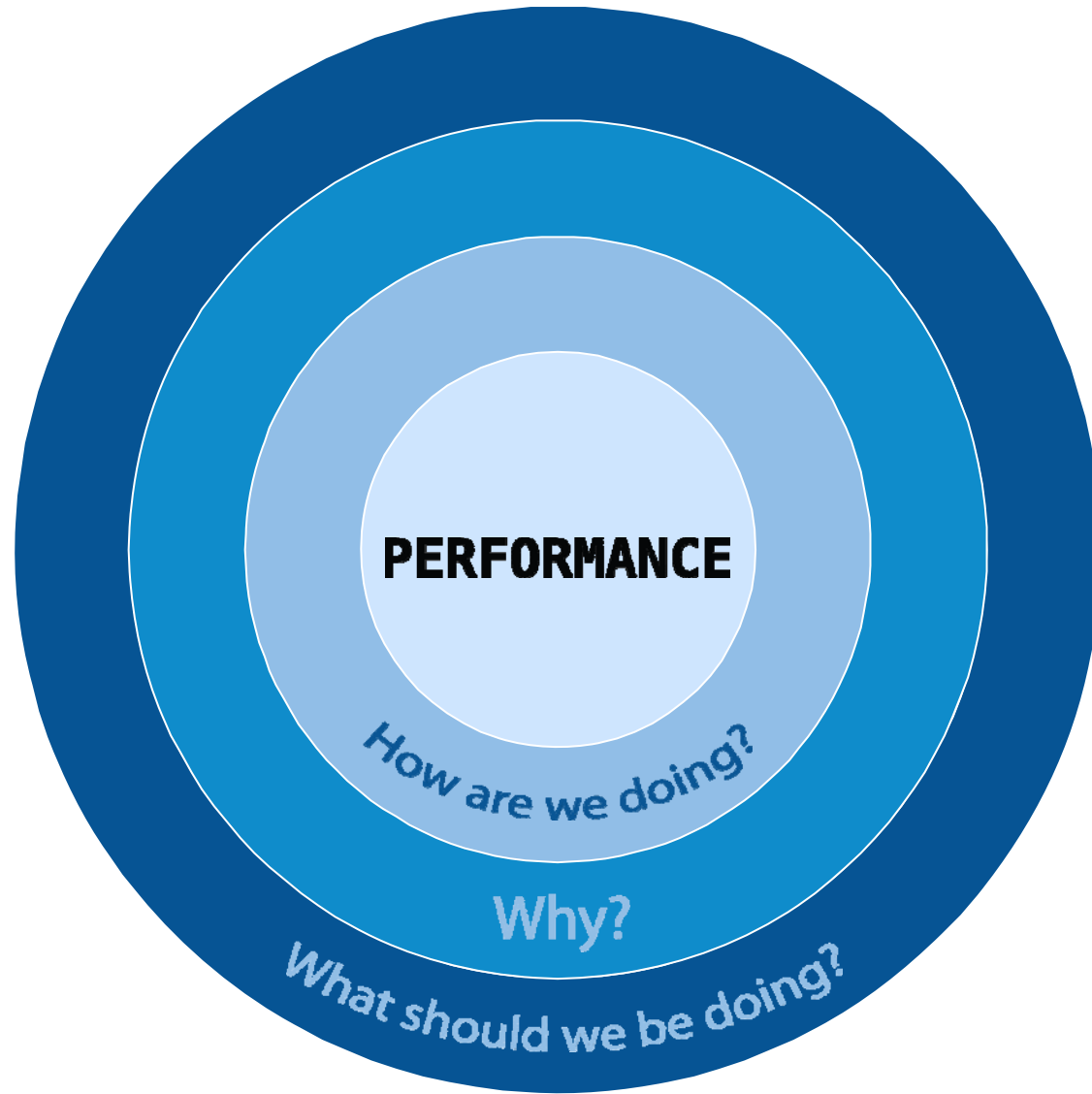
Immediate Insights to Business Performance

How are we doing?

> *Immediate Insights to Business Performance*

How are we doing?

PERFORMANCE

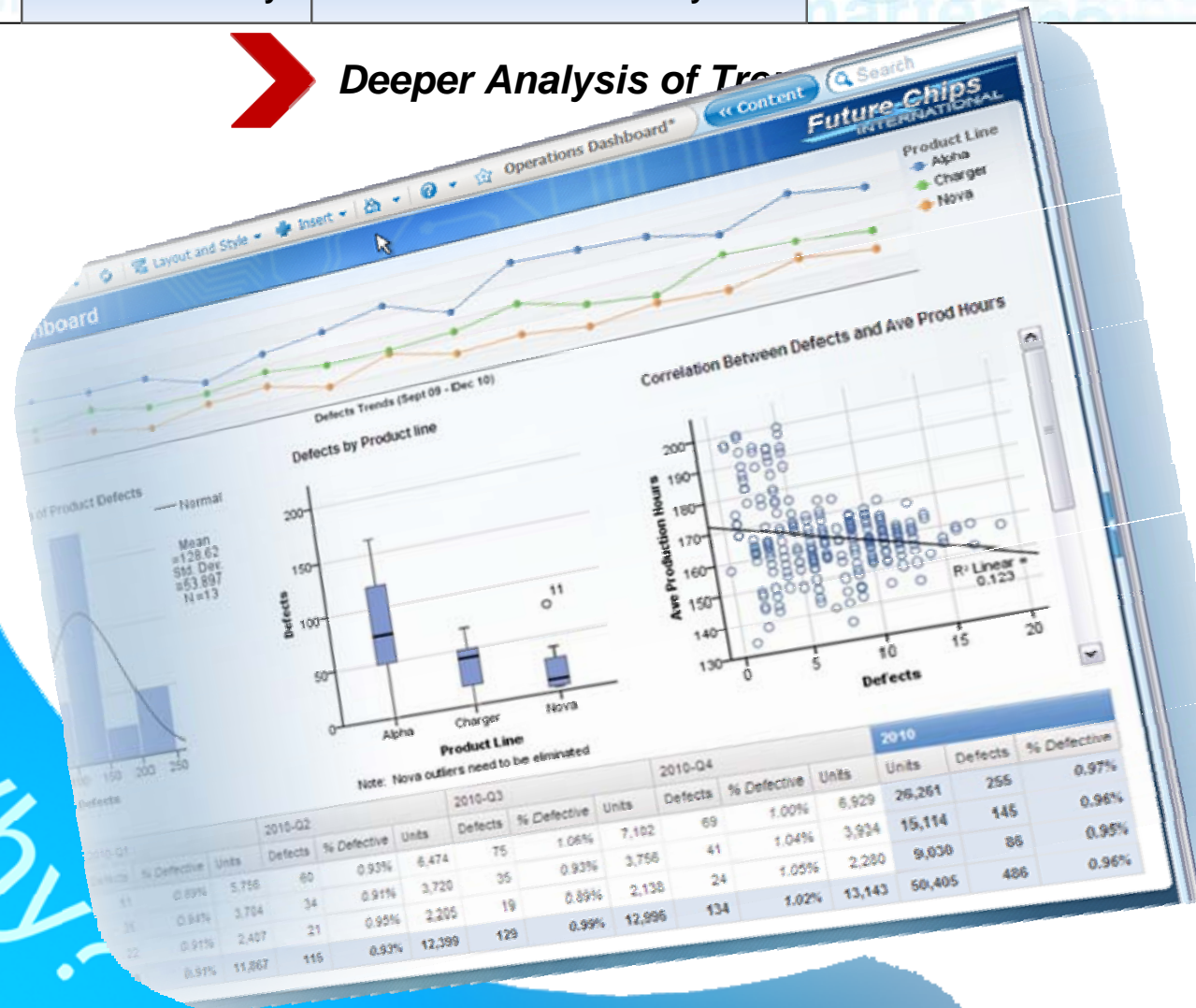How are we doing?

Why?

What should we be doing?

Deeper Analysis of Trend

Deeper Analysis of Tre

Deeper Analysis of Trends & Patterns

Why?

PERFORMANCE

How are we doing?

Why?

What should we be doing?

Foresight to Plan & Allocate Resources

What should we be doing?

Foresight to Plan & Allocate Resources

What should we be doing?

Foresight to Plan & All____urces

What should we be doing?

Business Analytics & Optimization Solutions

Industry Solutions

| Financial Services | Public | Distribution | Industrial | Communications |

Cross-Industry Solutions

| Finance | Human Capital | Supply Chain / Operations | Customer |

Business Analytics

| Business Intelligence | Predictive & Advanced Analytics | Financial Performance & Strategy Management | Governance, Risk & Compliance | Analytic Applications |

Information Management and Governance

Information Integration & Master Data Management
Data Warehousing

| Content Management | Data Management |

Workload Optimized Systems

Business Analytics & Optimization Solutions

Industry Solutions

| Financial Services | Public | Distribution | Industrial | Communications |

Cross-Industry Solutions

unica **Core metrics** An IBM Company

| Finance | Human Capital | Supply Chain / Operations | Customer |

COGNOS **SPSS** **ILOG** # Business Analytics **CLARITY SYSTEMS** **OPENPAGES**

| Business Intelligence | Predictive & Advanced Analytics | Financial Performance & Strategy Management | Governance, Risk & Compliance | Analytic Applications |

Information Management and Governance

Initiate

Information Integration & Master Data Management
Data Warehousing

FILENET Content Management

Guardium Data Management

NETEZZA # Workload Optimized Systems

Business Intelligence

Business Analytics

| Business Intelligence | Predictive & Advanced Analytics | Financial Performance & Strategy Management | Governance, Risk & Compliance | Analytic Applications |

- Full range of BI capabilities
  - Query, reporting, analysis, scorecarding, dashboarding)

- Delivers information where, when and how it is needed
  - Self-service reporting and analysis
  - Automated delivery of information in context
  - Author once, consume anywhere

- Purpose-built SOA platform that fits client environments and scales easily

Predictive and Advanced Analytics

Business Analytics

| Business Intelligence | Predictive & Advanced Analytics | Financial Performance & Strategy Management | Governance, Risk & Compliance | Analytic Applications |

- Full breadth of predictive analytics
  - data collection, statistics, data mining, predictive modeling, deployment services…

- Putting prediction in hands of the business
  - Decision Management

- Driving better business outcomes
  - Attract and retain more profitable customers
  - Detect and prevent fraud
  - Improve resource allocation

Financial Performance and Strategy Management

Business Analytics

Business Intelligence	Predictive & Advanced Analytics	Financial Performance & Strategy Management	Governance, Risk & Compliance	Analytic Applications

STRATEGY

Plan, Forecast, and Control

Analyze and Optimize

Close, Consolidate, and Report

- Simplify, structure, and automate dynamic and sustainable FP&SM practices

- Close the books, consolidate results and report performance.

- Set performance targets, align resource plans and forecast business results to meet or beat expectations

- Define, understand and lead your company's decision-making for better performance management.

CLARITY FSR™

- **Financial governance software that automates financial reporting**, improving efficiency and data quality for SEC filings (including XBRL), 10Qs and Ks, board reports, etc.
  - Automated external reporting
  - Business rules
  - Reconciliation Management
  - Internal Controls, Work Flow and Audit Trail

- Solutions enable organizations to collect, prepare, certify and control the delivery of financial documents

- Meet electronic filing mandates (including XBRL) from stock exchange and other regulatory bodies

Governance, Risk, and Compliance

Business Analytics

Business Intelligence	Predictive & Advanced Analytics	Financial Performance & Strategy Management	Governance, Risk & Compliance	Analytic Applications

NEW **OpenPages** an IBM® Company

CommandCenter
Business Intelligence

COMMON REPOSITORY

SOLUTION COMPONENTS

Policies Accounts Risks   KRIs Assessments Issues   Entities Processes Controls   Loss Data Surveys And More

User Interface Content Management Search   SERVICES   Audit Trail Role Based Views Workflow
Security Document Management Reporting

- Platform that serves as the foundation for a company's enterprise risk management efforts

- Unifies enterprise wide risk and compliance initiatives into a single management system.

- Provides synergy with Information and IT Governance, Risk Management, and Security

Analytics Applications

Business Analytics

| Business Intelligence | Predictive & Advanced Analytics | Financial Performance & Strategy Management | Governance, Risk & Compliance | Analytic Applications |

IBM COGNOS ANALYTIC APPLICATIONS

Distribution
Communications
Public
Industrial
FINANCIAL SERVICES

Customer Workforce Finance Supply Chain

- Ready-made packaged reporting and analyses based on the best practices

- Encompasses a comprehensive portfolio
  - Workforce, customer, finance & supply chain

- Adaptable & extensible
  - Adaptive Application Framework

- Source data from multiple transaction systems

IBM Cognos Consumer Insight

Analytics that listen, measure and analyse social media performance to more effectively:

Grow Your
Business

Understand your customer needs to **target new offers and products** more cost-effectively through different **social media channels**

Enhance Your
Reputation

Evaluate your corporate reputation and make **evidence-based messaging** decisions that **target the right stakeholders** at the right time

Improve your
customer experience

Respond more quickly with accurate, timely and relevant insight into **customer requests to** ensure a **consistent brand experience** across all channels

Create Relationships. Build Advocacy. Improve Loyalty.

Continued Innovation

Better Business Outcomes

CLARITY SYSTEMS

OPENPAGES

SPSS

Cognos 10

- **Massive scale analytics**

- **Many Eyes**

- **System z support**

- **Smart Analytics System**

- **New Analytic Applications**

- **Content Analytics**

- **Cognos 8 Mashup Service**

- **Cognos Express**

- **Cognos TM1**

Information regarding potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision. The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code or functionality. Information about potential future products may not be incorporated into any contract. The development, release, and timing of any future features or functionality described for our products remains at our sole discretion.
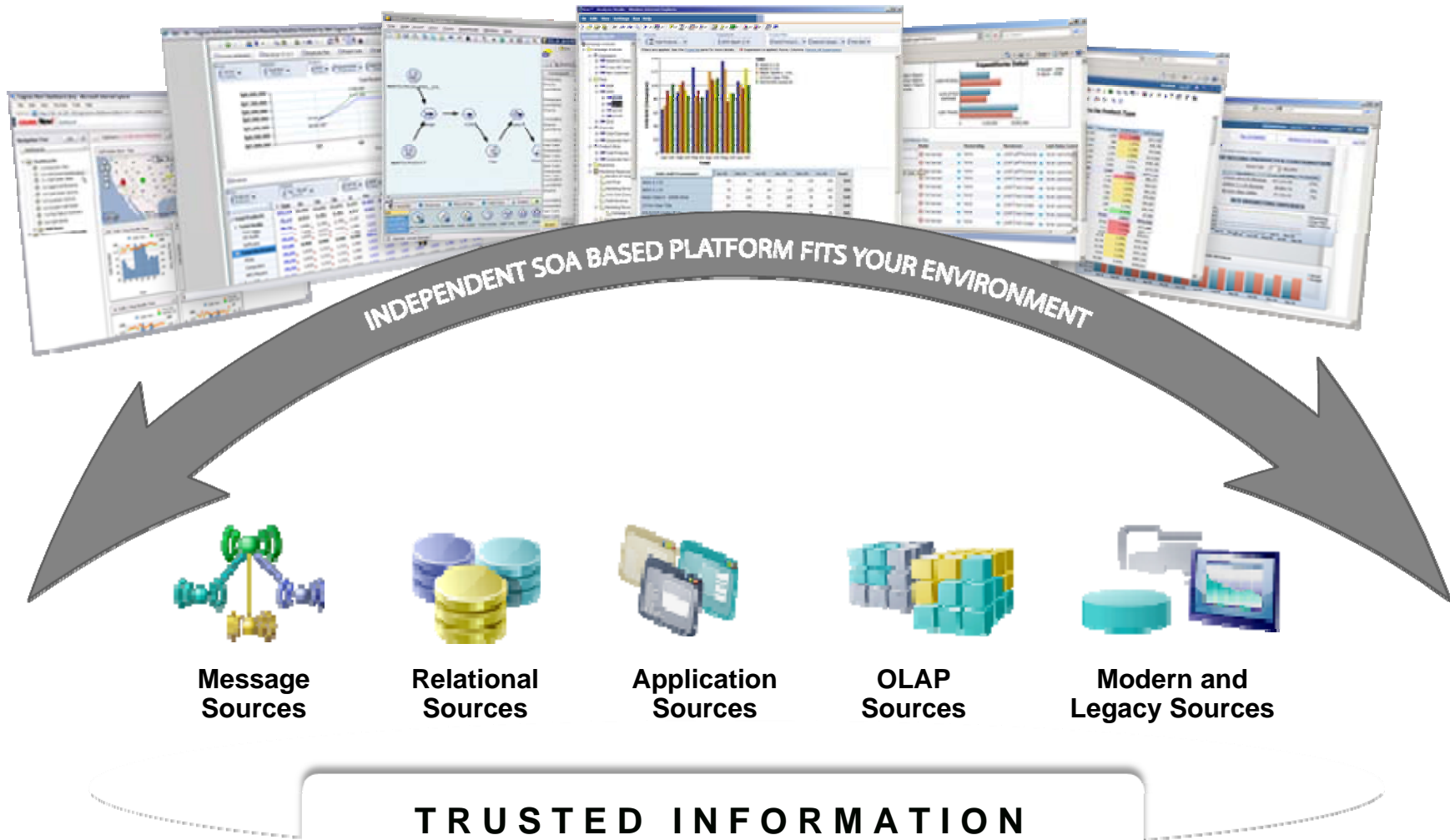
Informed, Aligned Decisions and Actions

FINANCE

MARKETING

HR

SALES

PERFORMANCE

OPERATIONS

How are we doing?

Why?

CUSTOMER SERVICE

What should we be doing?

PRODUCT DEVELOPMENT

IT

- **All Capabilities**
- **Proven Platform**
- **Rich Expertise**

IBM Business Analytics Client Advantage: All Capabilities

IBM Business Analytics Client Advantage: Proven Platform

INDEPENDENT SOA BASED PLATFORM FITS YOUR ENVIRONMENT

| Message Sources | Relational Sources | Application Sources | OLAP Sources | Modern and Legacy Sources |

T R U S T E D   I N F O R M A T I O N

IBM Business Analytics Client Advantage: Rich Expertise

Healthcare

Government

Transportation

Energy & Utilities

- **Proven Practices**
- **Client Communities**
- **Solution Accelerators**

Retail

Banking

Electronics

Insurance

Telecommunications

Chemical & Petroleum
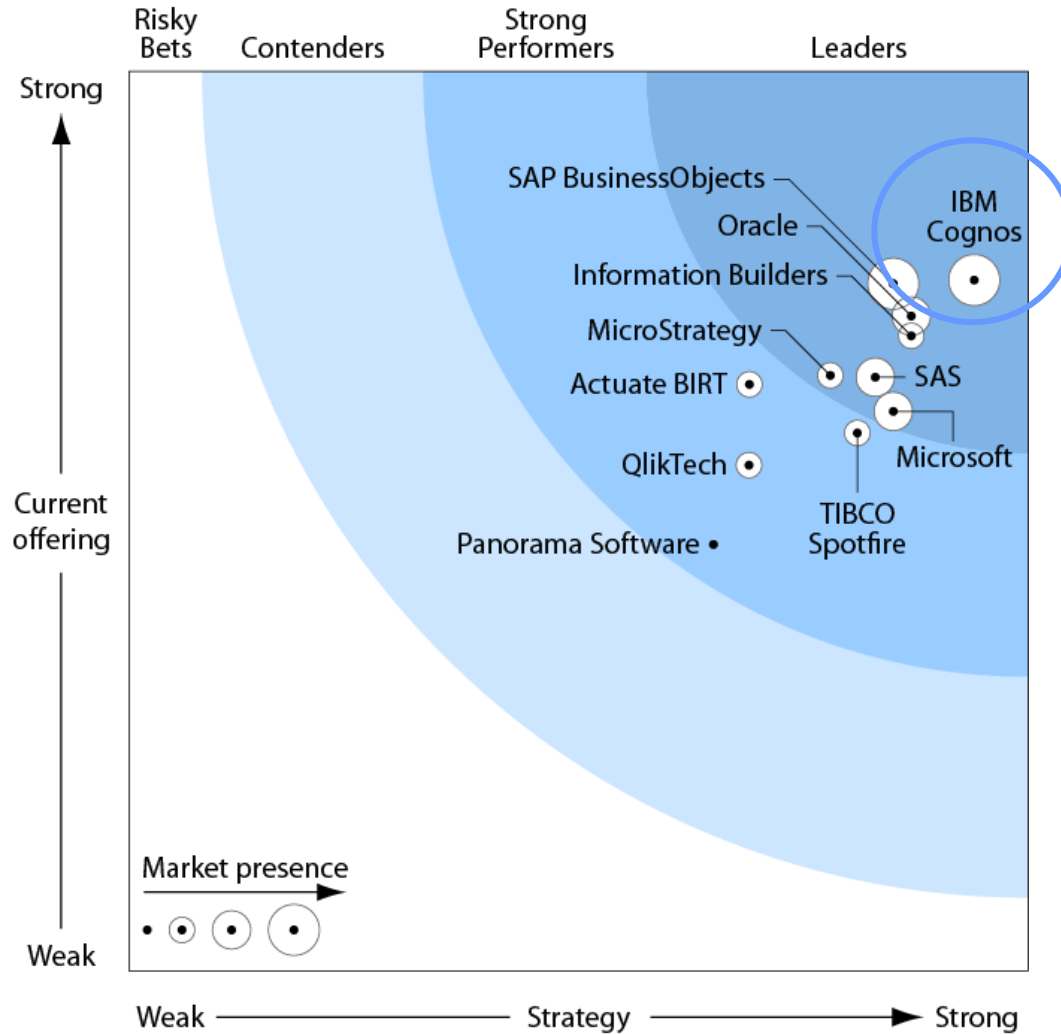
45

IBM Commitment to Business Analytics and Optimization

Business Analytics & Optimization

Creating unique value for clients

- More than **$14B** investment acquiring 24 companies since 2005

- More than **10,000** technical professionals

- More than **7,500** dedicated consultants

- **Largest** Math Department in Private Industry

- More than **27,000** Business Partner Certifications

- **8** Analytics Solutions Centers

- Optimized hardware and software offerings

- **100** analytics-based research assets; almost **300** researchers

- Significant marketing investment worldwide in New Intelligence through Smarter Planet

IBM Cognos a Leader in the Forrester Wave™: Enterprise BI Platforms

Source: Forrester Research Inc. "The ForresterWave: Enterprise Business Intelligence Platforms, Q4 2010", Oct 20, 2010.

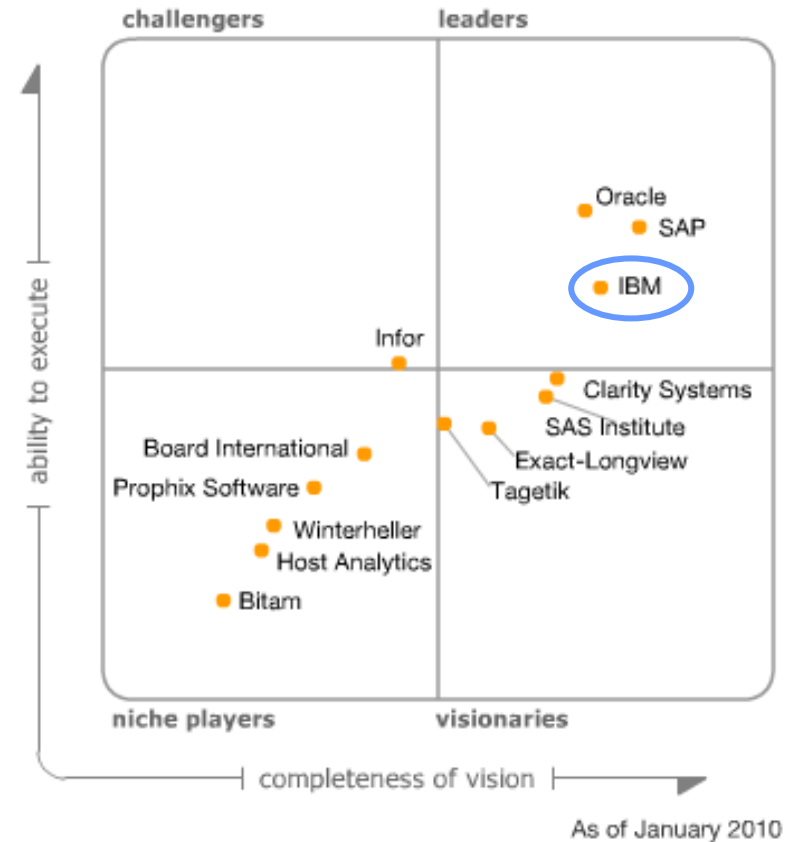Full report can be accessed at **http://www.ibm.com**

IBM

IBM Positioned in Leaders Quadrants of the Magic Quadrants for Business Intelligence Platforms and for CPM Suites

Magic Quadrant for Business Intelligence Platforms

Magic Quadrant for CPM Suites

IBM Business Analytics Customer Awards

Gartner Business Intelligence Excellence Award

- US Army
- Komerčni Banka

TDWI Best Practices Award

- IMPAX Laboratories

Nucleus Research Technology ROI Awards

- Memphis Police Department
- Blue Mountain Resorts
- Navy Federal Credit Union
- U.S. Lumber

Computerworld Honors

- Alameda County Social Services (Government)
- Mobile County (Education)

1to1 Magazine Customer Champion

- Hamilton County (Tenn) Department of Education

Partner for the Business Analytics Journey

- **Better Business Outcomes**
  - Insight to anticipate and shape
- **Smarter Decisions**
  - How are we doing?
  - Why?
  - What should we be doing?
- **IBM Client Advantage**
  - All Capabilities
    - Predictive and real time
  - Proven Platform
    - Independent and trusted information
  - Rich Expertise
    - Industry and departmental

What's Your AQ?

Additional Materials

ROI Examples

1,185%

1,822%

3,623%

Blue Mountain Ski Resort

Business challenge:

•Rapid growth from acquisition, new facilities

•Reporting revenues/costs across multiple business lines was lengthy and labor intensive

•Needed operational visibility required of a public company

Solution:

•Optimize the frequency and granularity of reporting

•Increase focus on lines of business; and

•Identify, create and monitor KPIs.

Benefits:

•Reduced labor costs by $2.5M /year

•Eliminated excess inventory

•Avoided headcount

•Improved reporting

– made better business decisions

ROI:
1822%
Payback:
1 month

BLUE MOUNTAIN

Source: Nucleus Research 2009

Business challenge:

- Limited visibility
- Labor intensive and costly analyses
- Static and inflexible reports

Solution (or strategy):

- Web-based functionality that allows finance to publish standardized reports and tools to the Web, effectively creating department-specific portals

- The ability for staff and LOB managers to create ad-hoc and end-user reports without assistance of IT or Finance

- Java-based functionality enabling users to drill into databases or reports that are continuously updated for new transactions

Benefits:

- Improved productivity by an average of 13 % for the 120 users
- Reduced financing costs by accelerating turnover of both AR and inventory

U.S. LUMBER

ROI: 3,623% Payback: 11 days

Source: Nucleus Research 2009

Business challenge:

•Need to respond faster

•Promptly predicting and tracking crimes

•Cost effectively upgrade resources

Solution (or strategy):

•Create predictive analytics system called "Blue CRUSH" (Criminal Reduction Utilizing Statistical History)

•Integrate IBM SPSS with a geographic information system to both analyze and visualize data.

Benefits:

•Increased overall visibility into crime

•Improved communication

•Increased overall productivity

Memphis Police Department

ROI: 863% Payback: 2.7 month

Source: Nucleus Research 2009

Cognos. software

Business challenge:

•Identify fraudulent claims

•Accelerate collection of payments

•Automate workflows and data gathering

Solution (or strategy):

•Enable the company to more rapidly identify and investigate suspicious claims

•Identify unsuspicious claims so that they could be handled rapidly in order to improve customer satisfaction

Benefits:

•Accelerated payment collection

•Reduced cost of claims payments
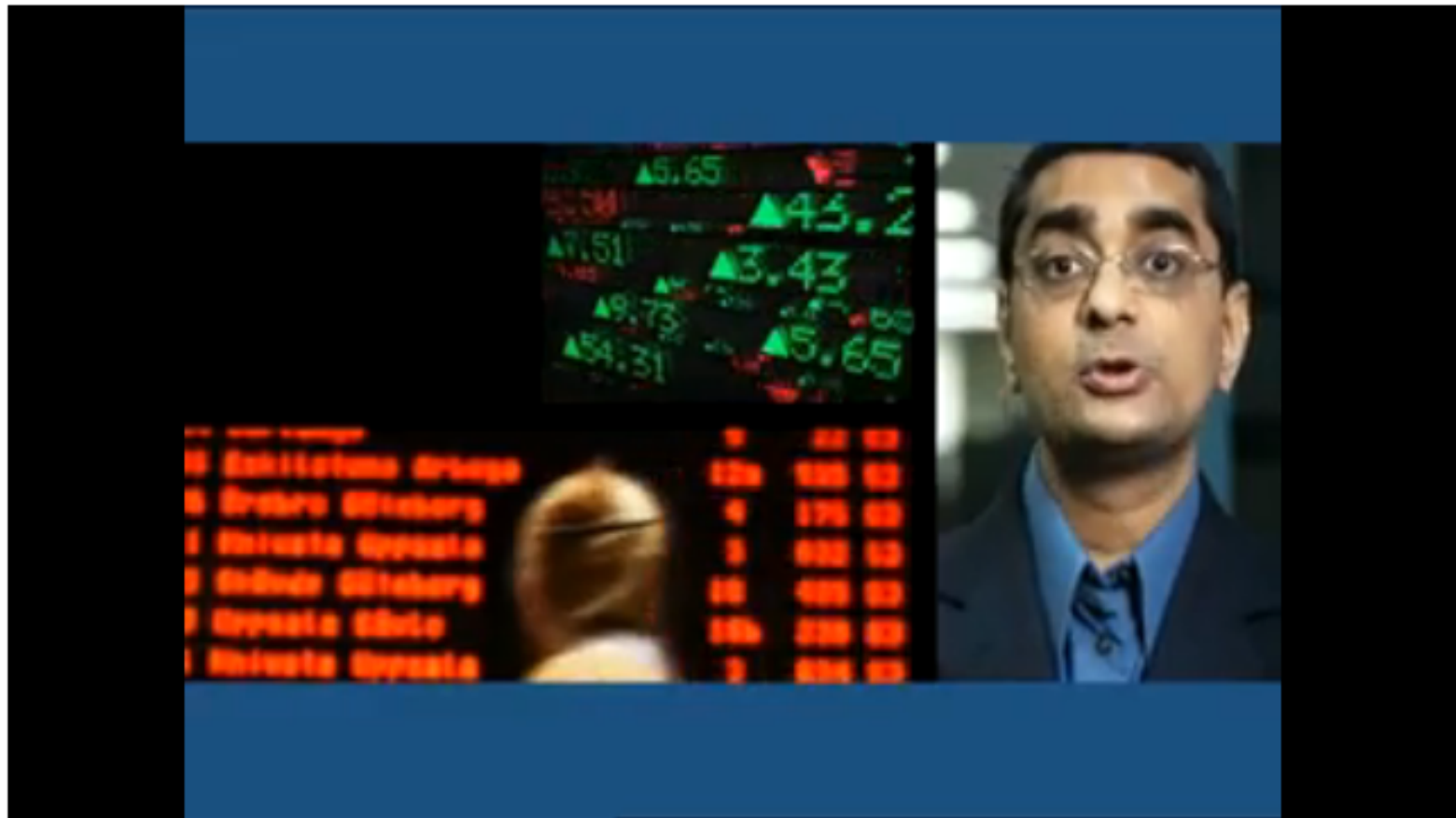
ROI: 403 %

Payback: 3 months

Source: Nucleus Research 2009
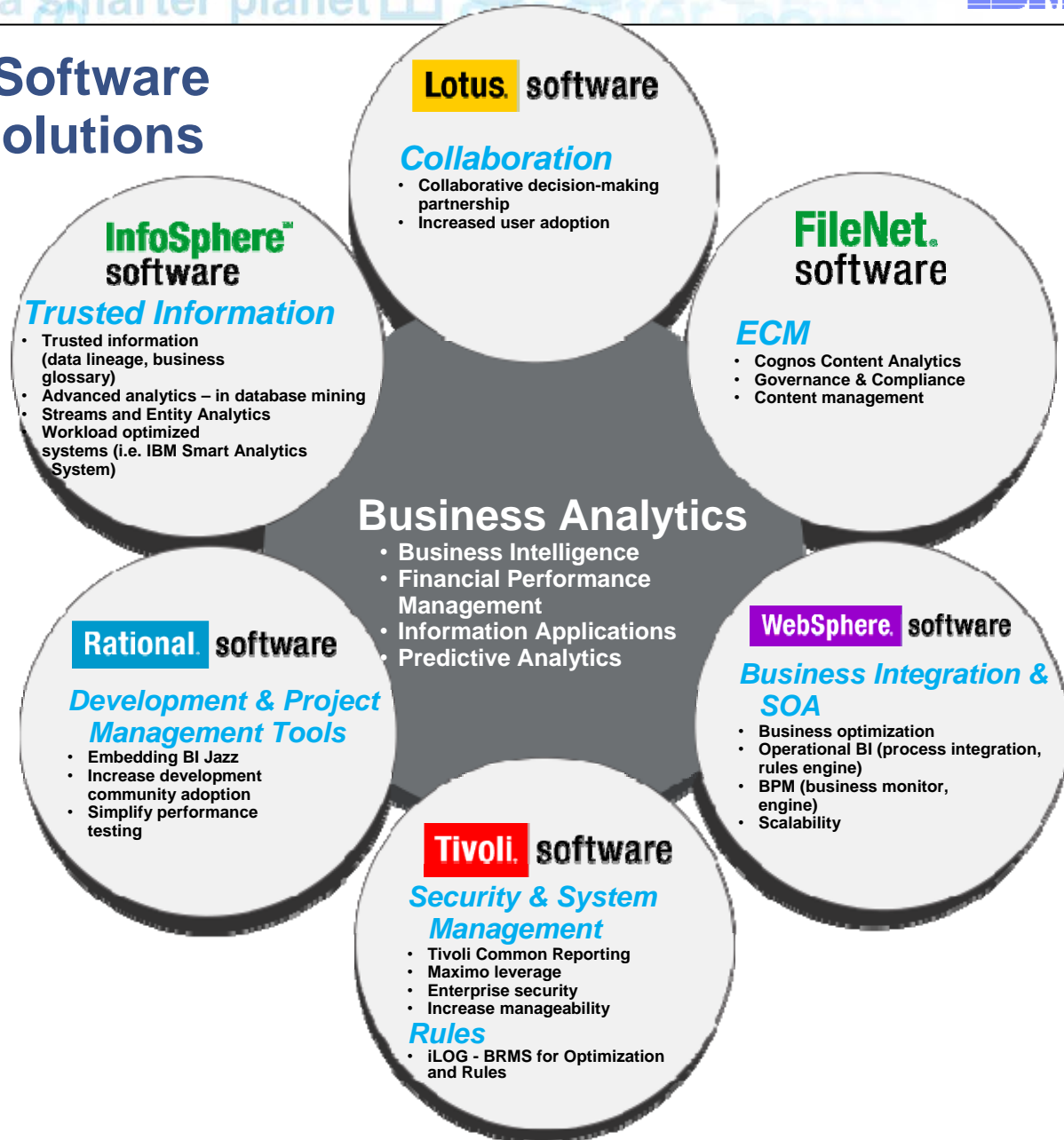
INFINITY

Cognos.
software

IBM Commercial: Identifying Patterns in Data Reveals Insights into the Future

Synergy across IBM Software to Deliver Strategic Solutions

Strategic Initiatives that Drive Synergy Requirements

- *Collaboration for decision making*
- *Business Optimization and process*
- *Information Agenda*
- *Governance and Regulatory Compliance*
- *Standardization / TCO*
- *Workload Optimized Systems*

Lotus. software

Collaboration
- **Collaborative decision-making partnership**
- **Increased user adoption**

InfoSphere software

Trusted Information
- **Trusted information (data lineage, business glossary)**
- **Advanced analytics – in database mining**
- **Streams and Entity Analytics**
- **Workload optimized systems (i.e. IBM Smart Analytics System)**

FileNet. software

ECM
- **Cognos Content Analytics**
- **Governance & Compliance**
- **Content management**

Business Analytics
- **Business Intelligence**
- **Financial Performance Management**
- **Information Applications**
- **Predictive Analytics**

Rational. software

Development & Project Management Tools
- **Embedding BI Jazz**
- **Increase development community adoption**
- **Simplify performance testing**

WebSphere. software

Business Integration & SOA
- **Business optimization**
- **Operational BI (process integration, rules engine)**
- **BPM (business monitor, engine)**
- **Scalability**

Tivoli. software

Security & System Management
- **Tivoli Common Reporting**
- **Maximo leverage**
- **Enterprise security**
- **Increase manageability**

Rules
- **iLOG - BRMS for Optimization and Rules**

IBM Positioned in Leaders Quadrants of the Magic Quadrant for Data Warehouse and Database Management Systems

MAGIC QUADRANT

Figure 1. Magic Quadrant for Data Warehouse Database Management Systems

As of January 2010

Source: Gartner (January 2010)

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IBM Positioned in Leaders Quadrants of the Magic Quadrant for Data Quality Tools

Figure 1. Magic Quadrant for Data Quality Tools

Source: Gartner (June 2010)

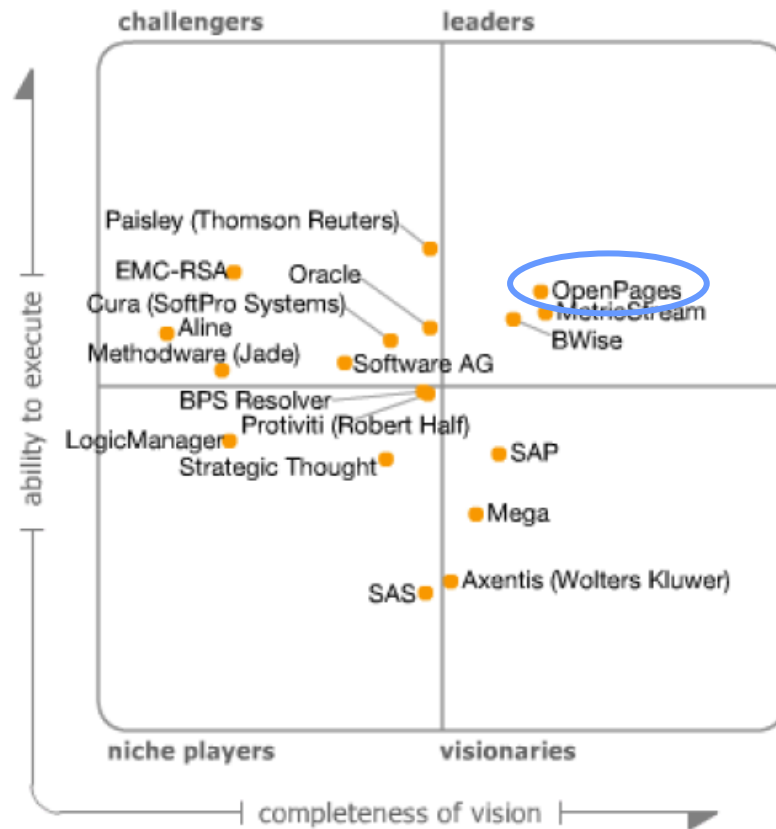# IBM Positioned in Leaders Quadrants of the Magic Quadrant for Data Integration Tools

MAGIC QUADRANT

Figure 1. Magic Quadrant for Data Integration Tools

As of November 2010

Source: Gartner (November 2010)

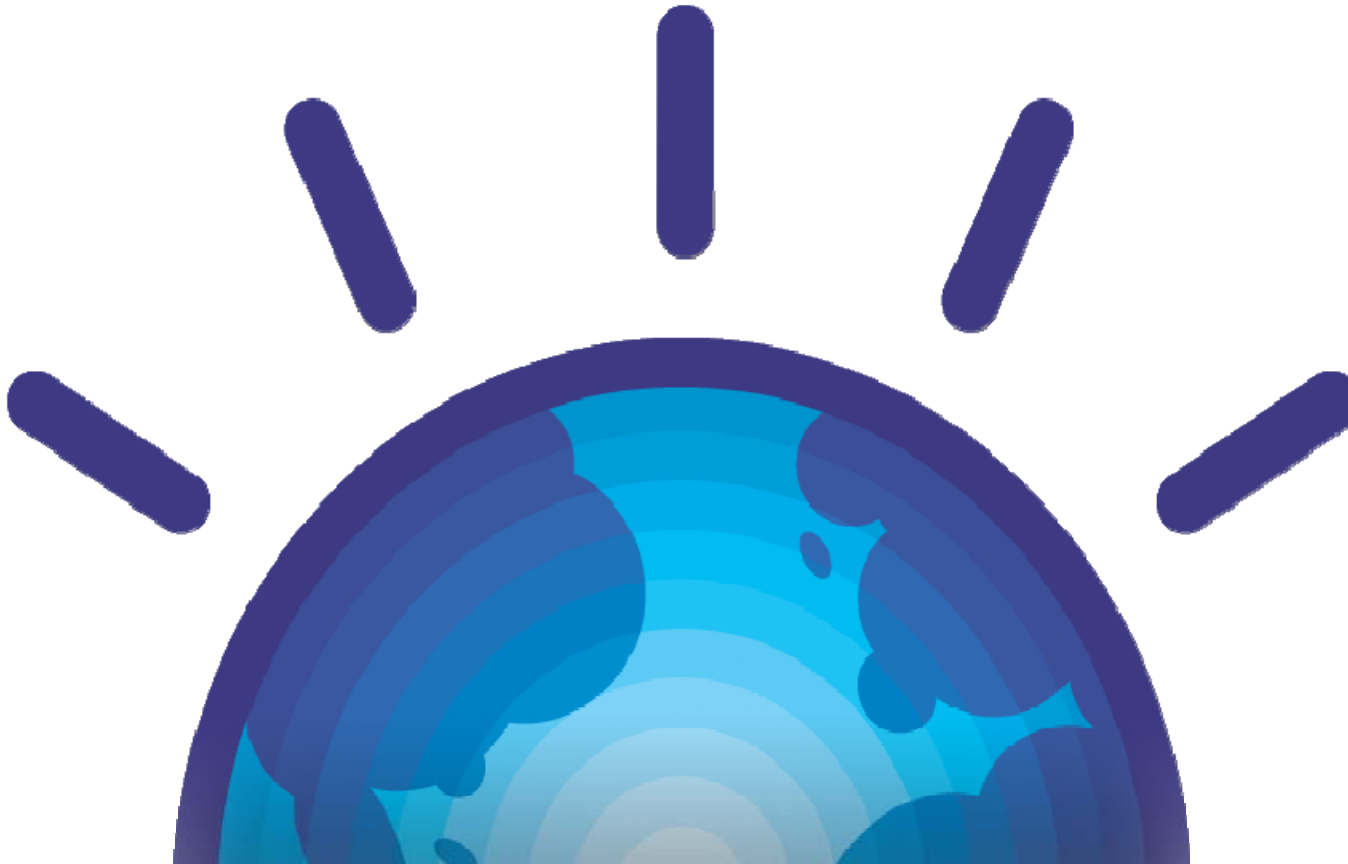# IBM Positioned in Leaders Quadrants of the Magic Quadrant for Enterprise Governance, Risk and Compliance (GRC)

MAGIC QUADRANT

Figure 1. Magic Quadrant for Enterprise Governance, Risk and Compliance Platforms

Source: Gartner (October 2010)

"Insight and foresight are linked with leadership. It's insight that helps to capture opportunity."

Zhou Ming, Executive Vice President and Secretary General, China Council for Int'l Investment Promotion (Source: IBM Global CEO Study, 2010)

Business Analytics

Better Outcomes

Smarter Decisions

Actionable Insights

Relevant Information