

COMPUTERWORLD

# THE POWER OF **BIG DATA** SYMPOSIUM

6.26.12 | NYC

Optimizing **Big Data** for  
Real-Time Business Transformation

# Top Factors for Big Data Success

Henry Morris

Senior Vice President, Worldwide  
Software and Services Research  
IDC

## IDC Around the World



# Introduction

Big Data,  
Analytics  
and  
Decisions



# Leaders are doing something **new**

- Q. How has the type of data analysis performed in your organization changed over the past 12 - 24 months?

	Leaders	Other	Difference
We are using <b>new</b> analysis techniques on same type of data	28%	28%	0%
We are using <b>same</b> analysis techniques on <b>same</b> type of data	14%	28%	<b>-14%</b>
We are using same analysis techniques on <b>new</b> type of data	27%	20%	<b>7%</b>
We are using <b>new</b> analysis techniques on <b>new</b> type of data	23%	17%	<b>6%</b>

# New Demands on Decision Makers

**Real-Time & Informed**

Monitor/  
Alert

**Pervasive &  
Predictive**

Analyze

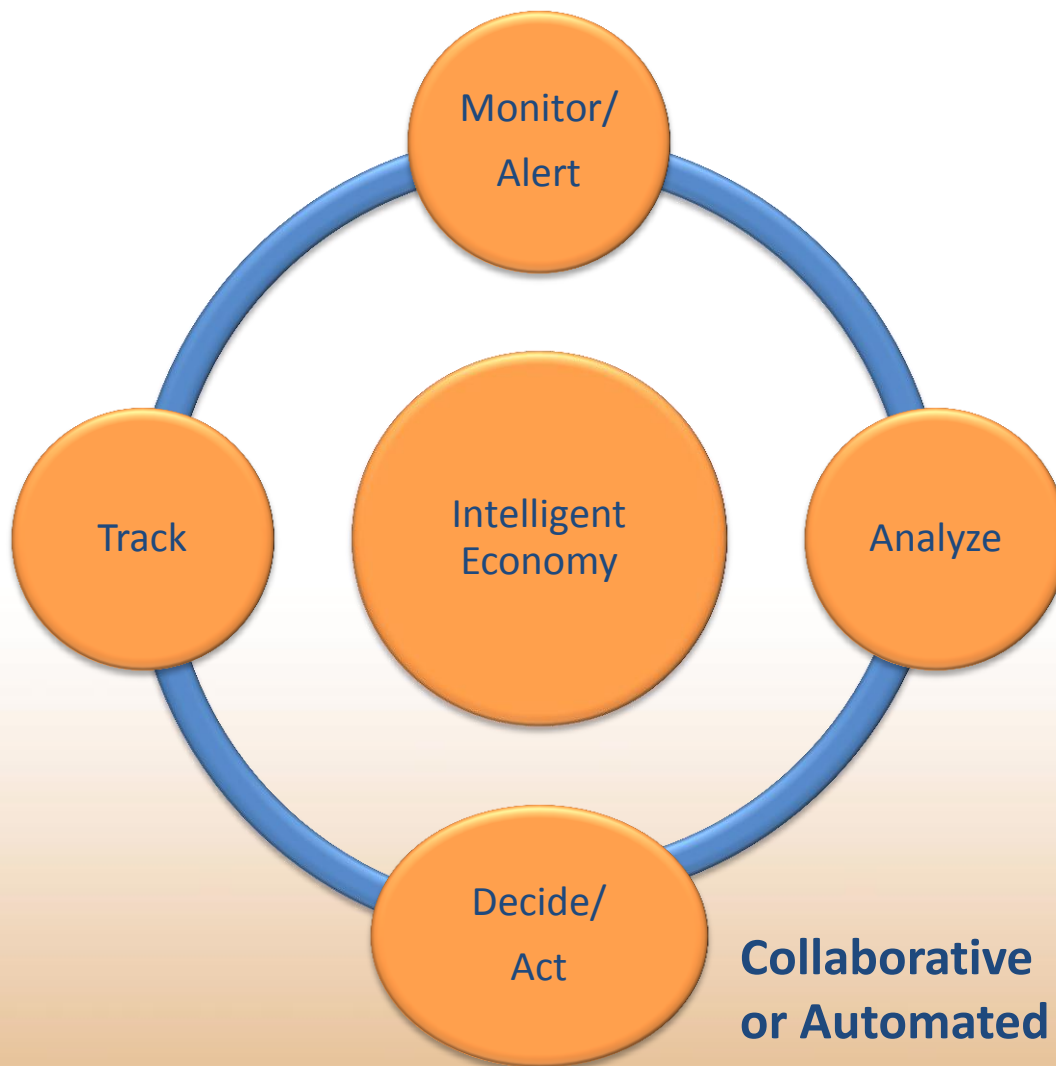
Intelligent  
Economy

Track

**Ubiquitous &  
Uninterrupted**

Decide/  
Act

**Collaborative  
or Automated**



# Monitor/Alert

## Some Events Follow a Schedule

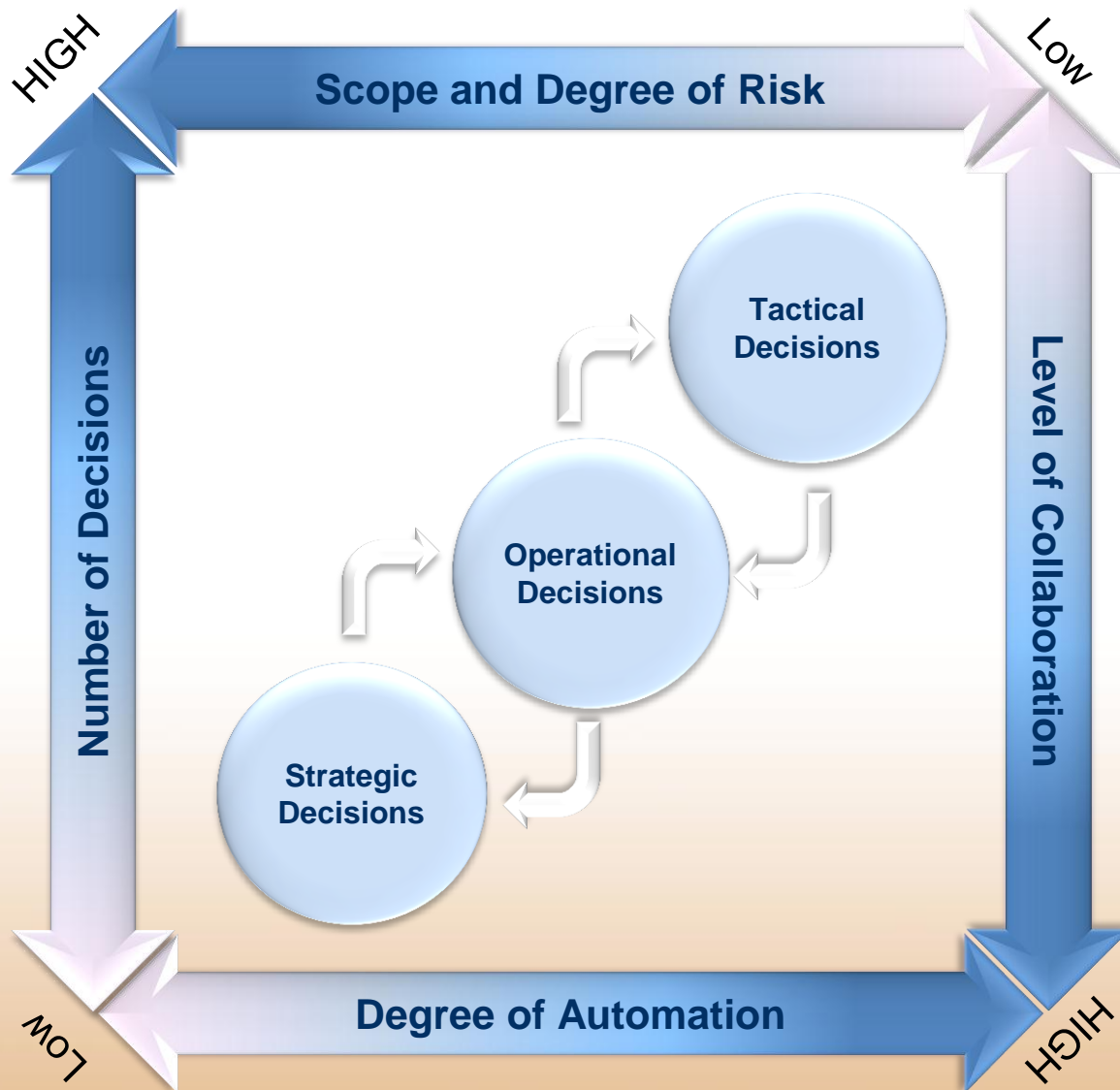


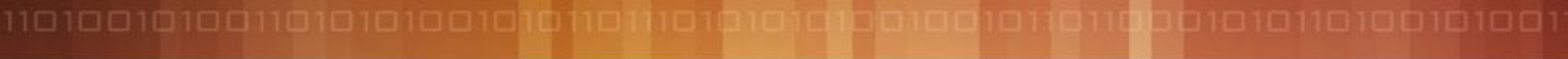
# Monitor/Alert

## Other Events Require Attention to Weak Signals

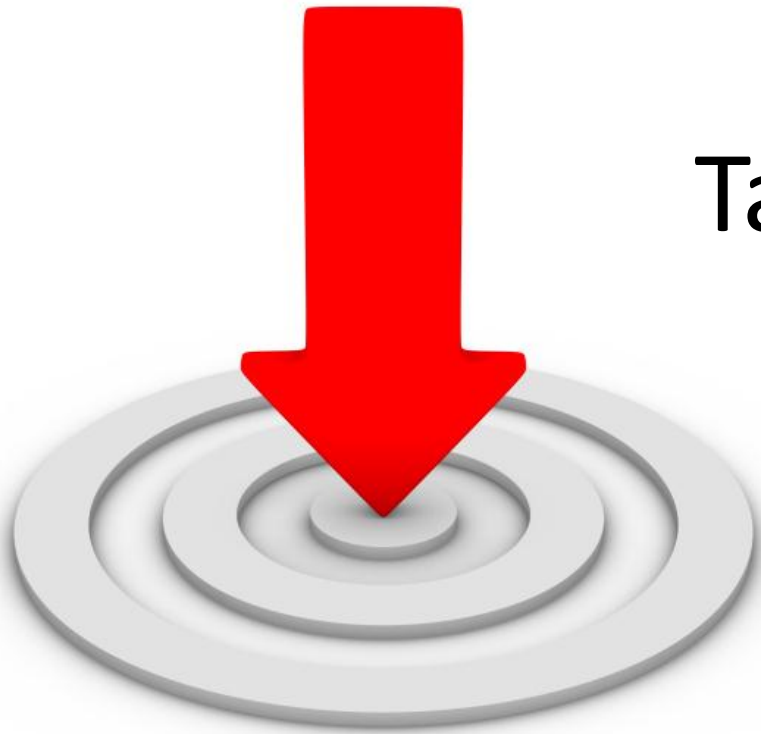


# Decision Management



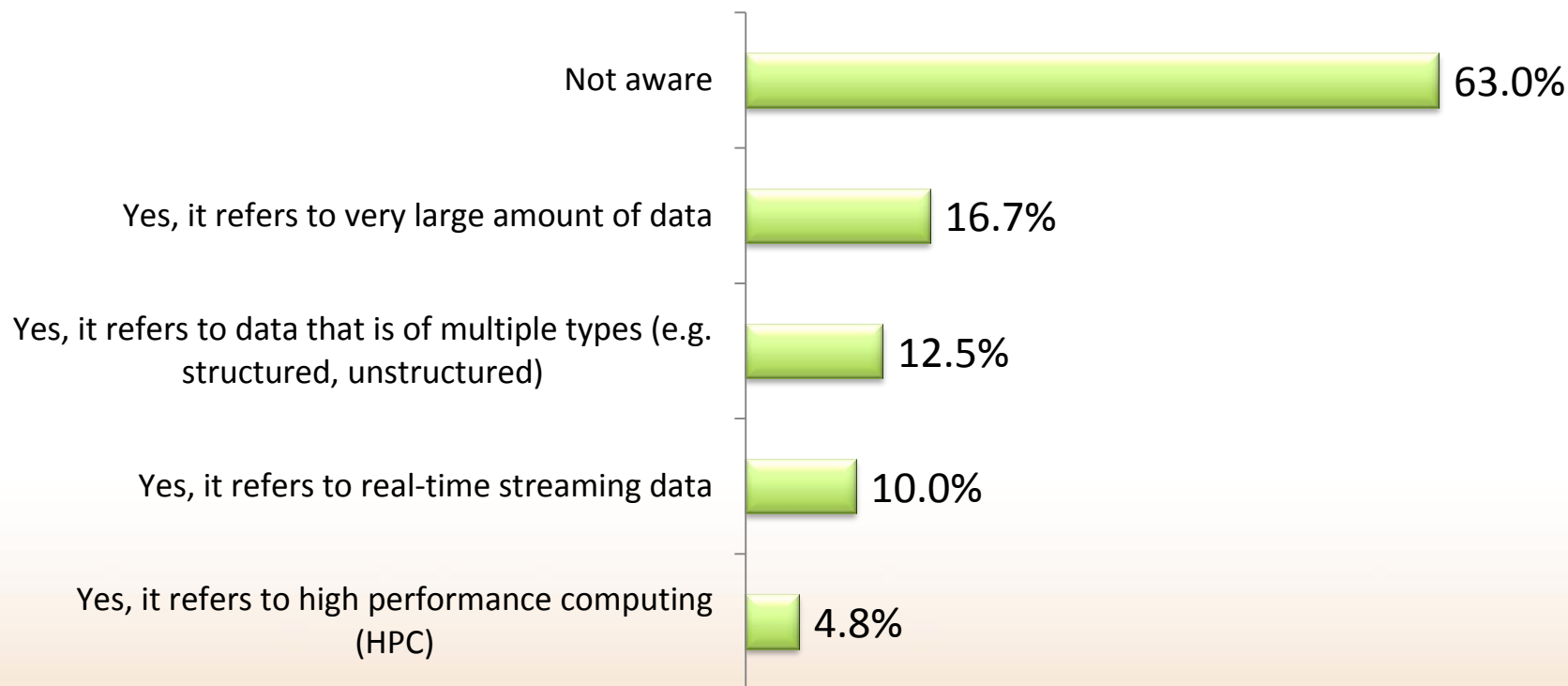


# Targeting Big Data



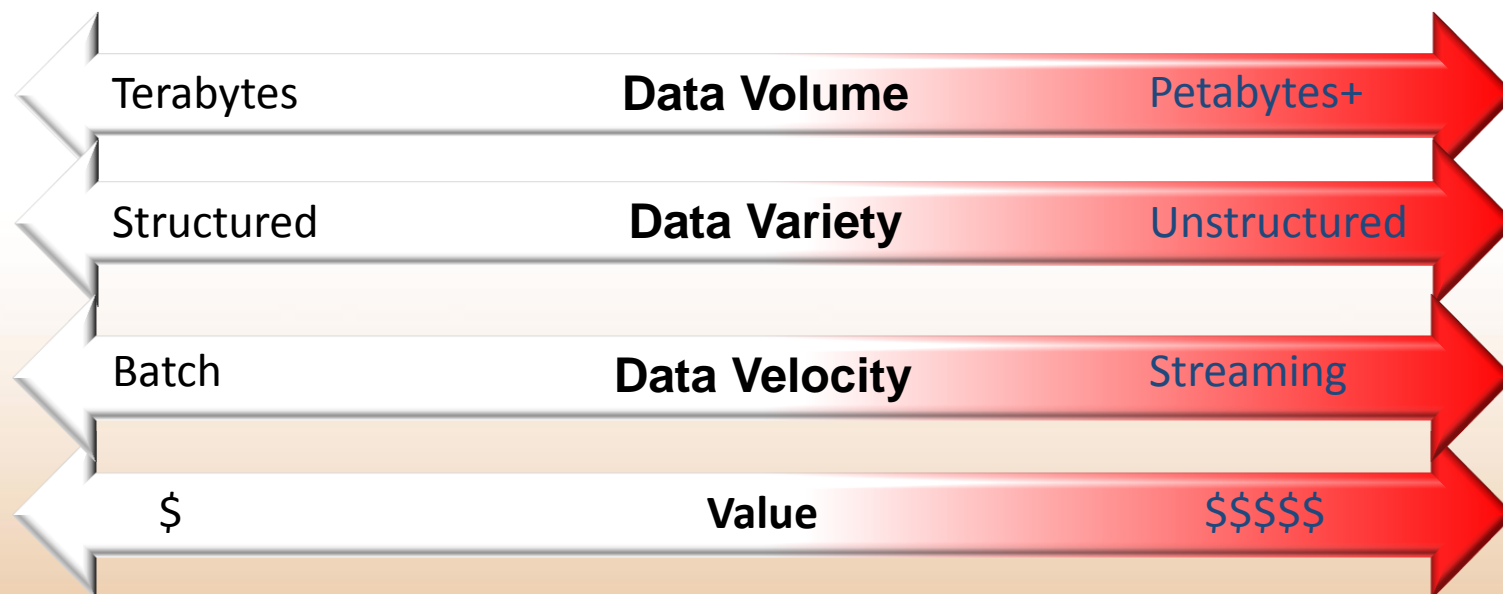
# Perceptions: Big Data

Q. Are you familiar with the phrase 'Big Data', and in your opinion what does it refer to?

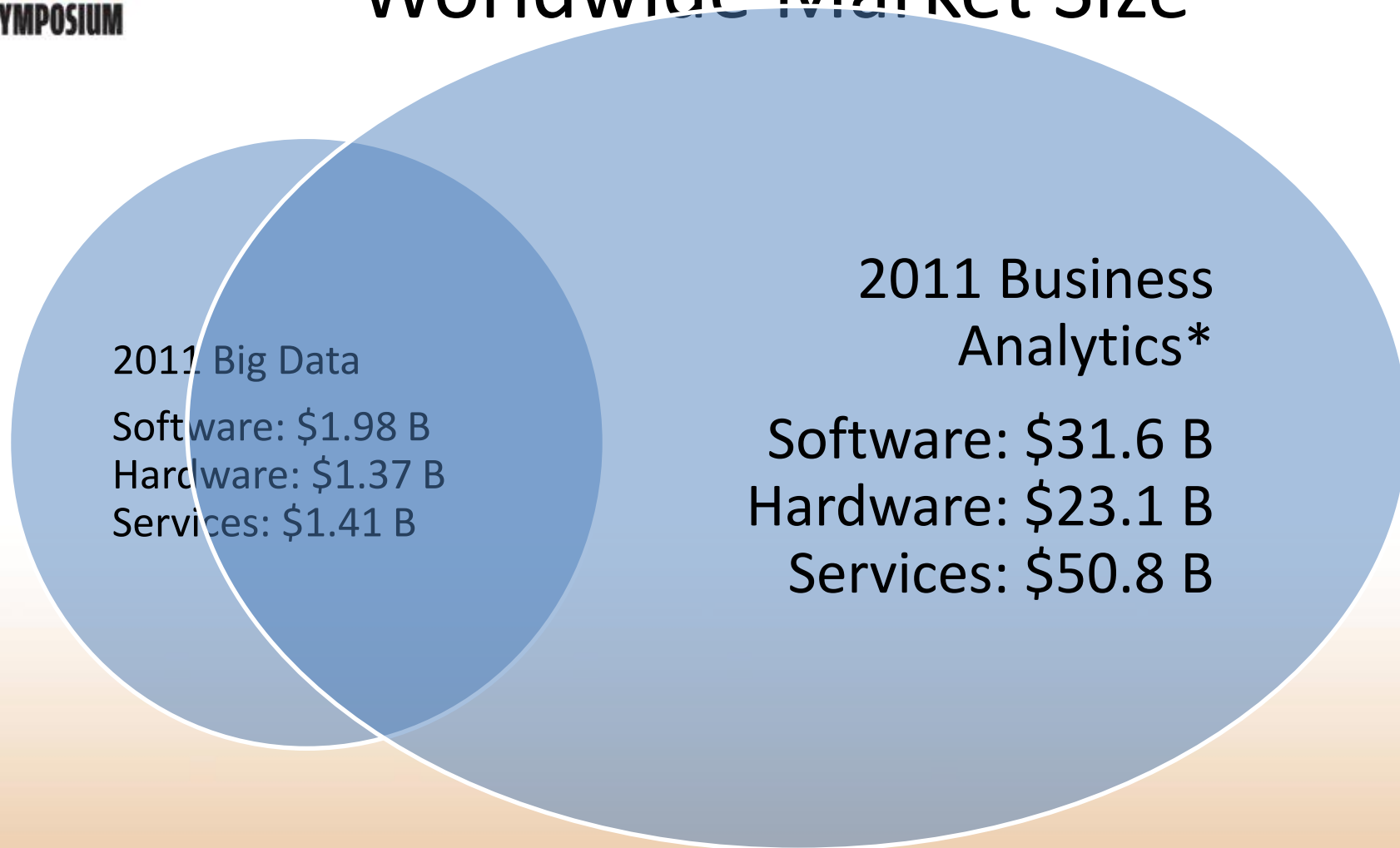


## IDC Definition: Big Data Technology

Big Data technologies describe a new generation of technologies and architectures, designed to economically extract value from very large volumes of a wide variety of data, by enabling high velocity capture, discovery and/or analysis

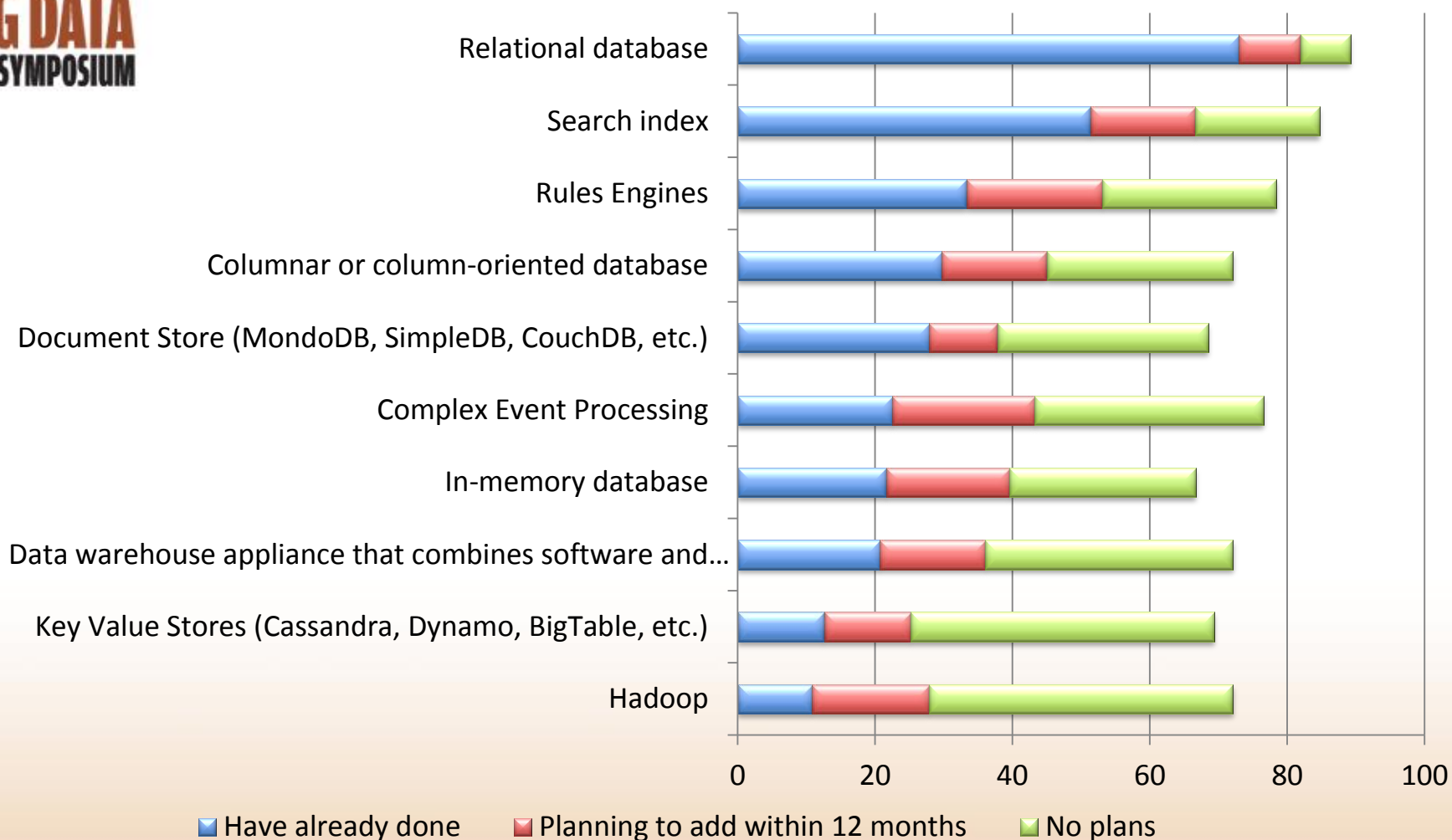


# Beyond Big Data: Worldwide Market Size



\* Preliminary estimate for hardware and services

# Technology Adoption



Q. Does your organization use or have plans to deploy the following technologies?

Source: IDC and Computerworld BI and Analytics Survey Research Group IT Survey, 2012, N = 111

# Big Data Technology Stack



## Decision Support & Automation Interface

Applications with functionality required to support collaboration, scenario evaluation, risk management, and decision capture and retention



## Analytics & Discovery

This layer includes software for ad-hoc discovery, and deep analytics and software that supports real-time analysis and automated, rules-based transactional decision making.



## Data Organization & Management

Refers to software that processes and prepares all types of data for analysis. This layer extracts, cleanses, normalizes, tags, and integrates data.



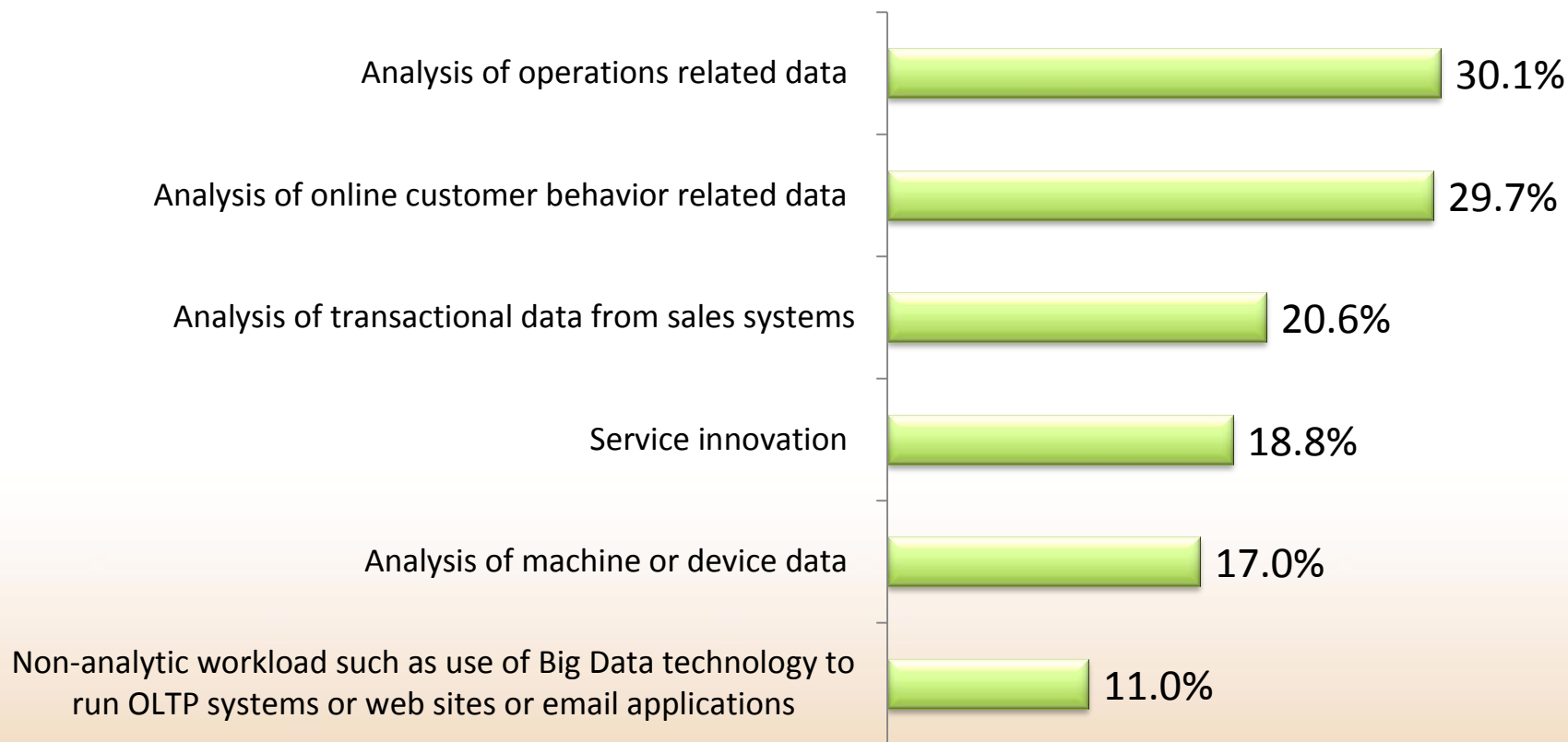
## Infrastructure

The foundation of the stack includes the use of industry standard servers, networks, storage, and clustering software used for scale out deployment of Big Data technology

# Business Drivers and Imperatives

What are your organization's drivers for using big data technologies and approaches?

**Total (N=4177)**



# Big Data Use Cases

## **Industry**

- Logistics optimization in the transportation industry
- Price optimization in the retail industry
- Intellectual property management in the media and entertainment industry
- Natural resource exploration in the oil and gas industry
- Warranty management in the manufacturing industry
- Crime prevention and investigation in local law enforcement
- Predictive damage assessments in the insurance industry
- Fraud detection in the banking industry
- Patient treatment and fraud detection in the healthcare industry



## **Business Process**

- Customer relationship management (sales, marketing, customer service, etc.)
- Supply chain and operations
- Administration (focused on finance and accounting, human resources, legal, etc.)
- Research and development
- Information technology management
- Risk management

## **Activity**

- Analytics (e.g., data mining, multi-dimensional analysis, data visualization)
- Information access (e.g., search-based access to information, normalization, and access across content and data sources)



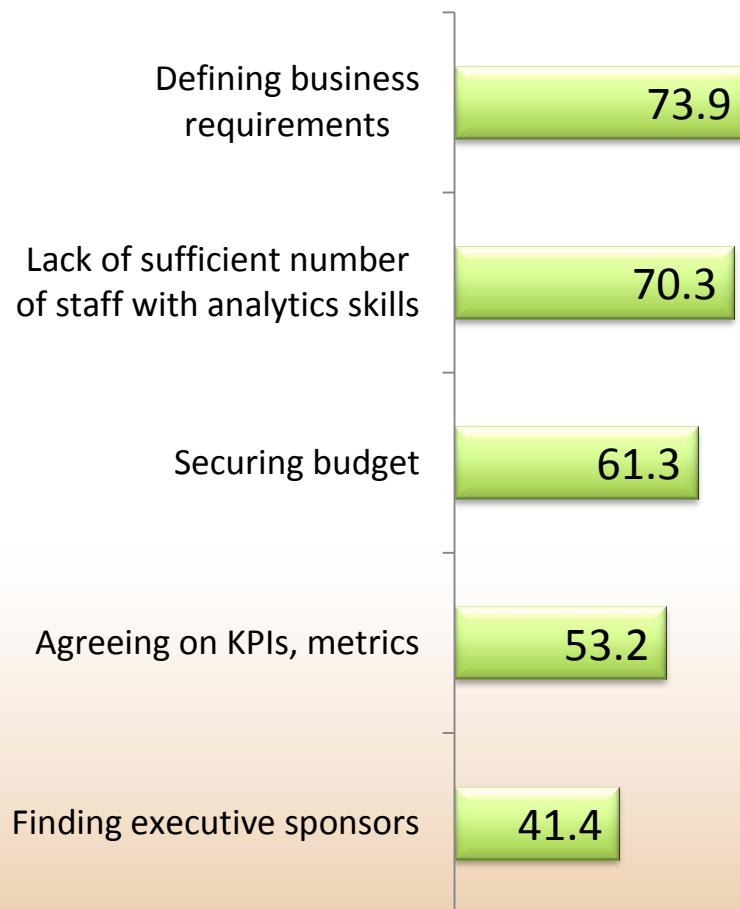
Critical Success Factors:  
It's All About Skills

# It's Not All About Technology

Q: What are the **top IT challenges** to delivering a successful business analytics solution?



Q: What are the top **business challenges** to delivering a successful BI and analytics solution in your organization?



## Building Skills for a Big Data/Analytics Team

Strategy, business case,  
sponsorship

### INFORMATION MANAGEMENT

- Data assessment
- Data ownership
- Data governance
- Data integration
- Data quality

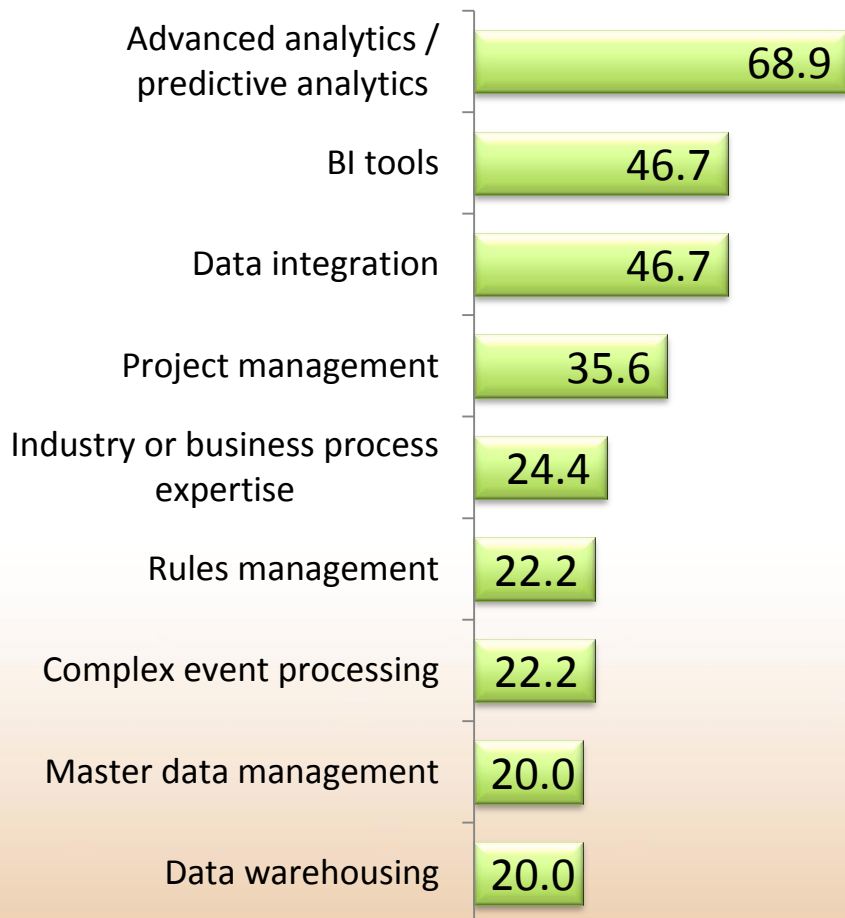
Analysis  
Models

### ORG CHANGE

- Training
- Internal promotion
- Performance Mgmt Methodology
- Fact-based decisions
- Assessment , ROI
- Collaboration
- Improvement

# Skills Shortage

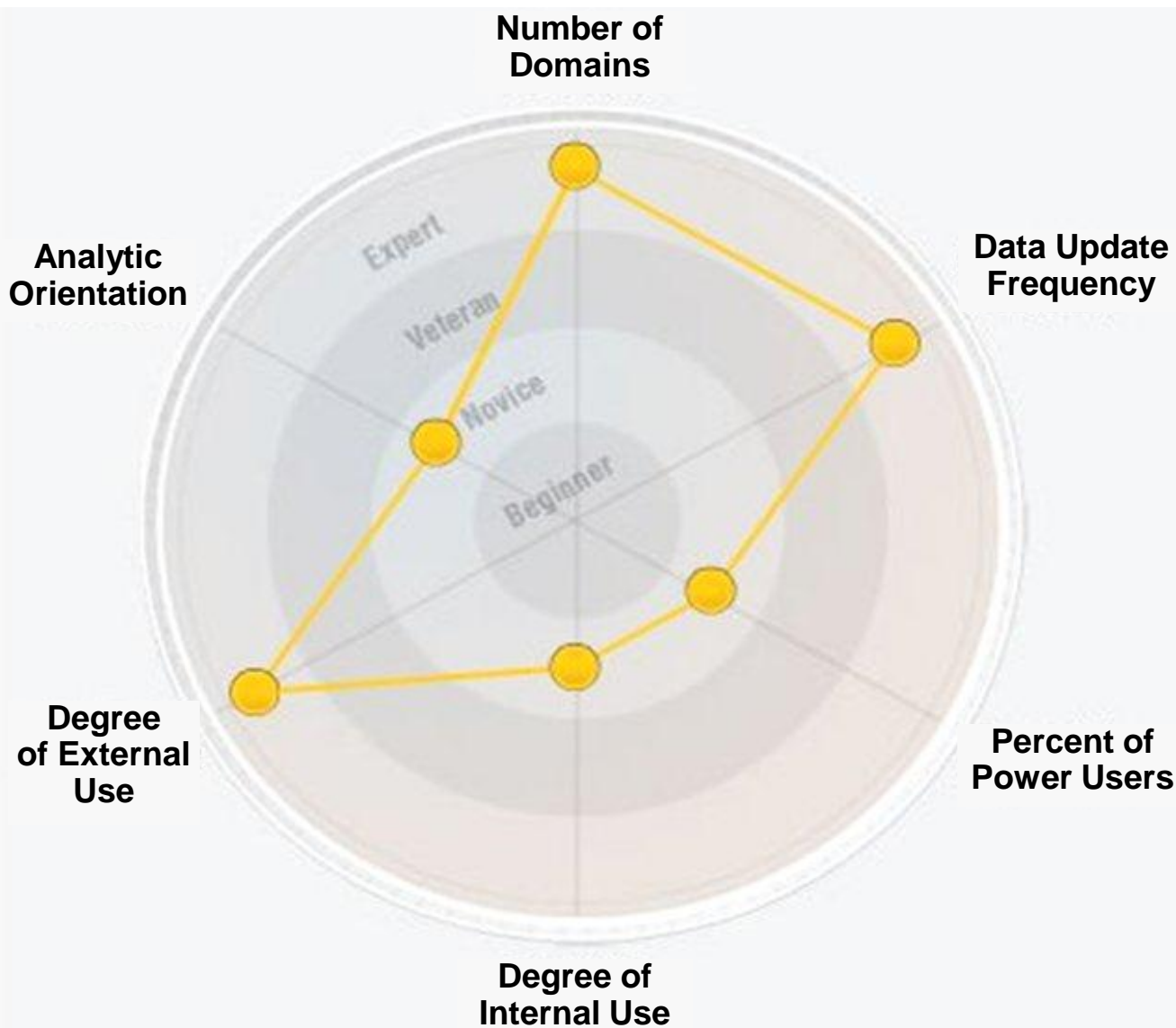
Q. What type of skills are you looking for most over the next 12 months?



Q. How difficult it is to find talent with the following skills? 1 means 'very difficult' and 5 means 'very easy'? (mean response)



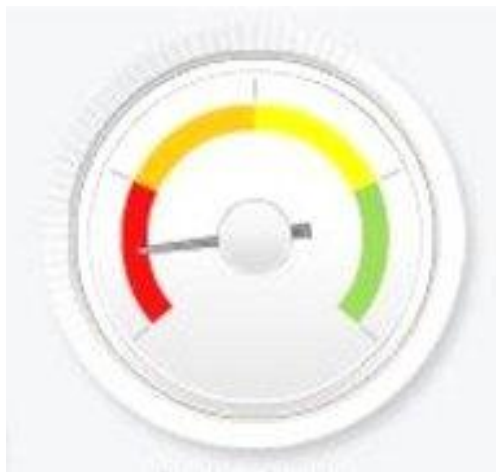
## Measures of Business Analytics Competency



# Drivers of Successful Analytics Implementation



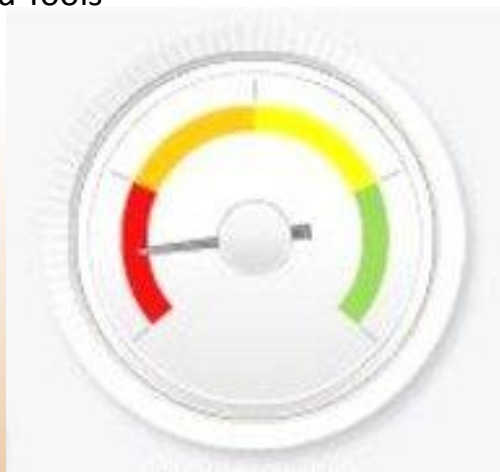
Training on KPIs,  
Analytics, and Tools



Solution Design Quality



Data Governance



Non-executive management  
involvement



Performance management  
methodology

# Getting Started

- Focus on the factors that build up analytical orientation in your organization.
- Define roles within a Big Data/Analytics team.; look beyond the data scientist.
- Build a roadmap that positions decisions and their relationships.
- Start with a high value decision with results you can measure.
- Big Data revises the value equation: incremental cost vs. incremental benefit.
- Remember that up to 70% of the effort of an analytics project is getting the data straight.
- Look to an architecture that enables rapid prototyping, ongoing customization, and extensibility.



**Henry Morris**  
Senior VP, Worldwide Software and Services  
IDC  
[hmorris@idc.com](mailto:hmorris@idc.com)

**Twitter:** [hmorrisidc](#)

**LinkedIn:** <http://www.linkedin.com/pub/henry-morris/0/422/997>

**IDC-INSIGHTS BUSINESS ANALYTICS BLOG:**

<http://idc-insights-community.com/resources/d9f728b4fa/summary>

COMPUTERWORLD

# THE POWER OF **BIG DATA** SYMPOSIUM

6.26.12 | NYC

Optimizing **Big Data** for  
Real-Time Business Transformation