IDC
Analyze the Future

Market Analysis Perspective:
Worldwide Business Analytics Software, 2015

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In This Presentation

The IDC Market Analysis Perspective session delivers a concise current state view of a market and insight into the impact of future trends. Business executives, product managers and MI/AR professionals can use this information when looking to understand buying criteria and market impacts.

The MAP session is a 60-minute **interactive dialogue** with the industry's most accessible analysts for the IDC research services to which you subscribe. The session includes a **current market update** on:

- Emerging industry trends
- Buyer needs
- Competitive assessment
- Long-term market opportunities.

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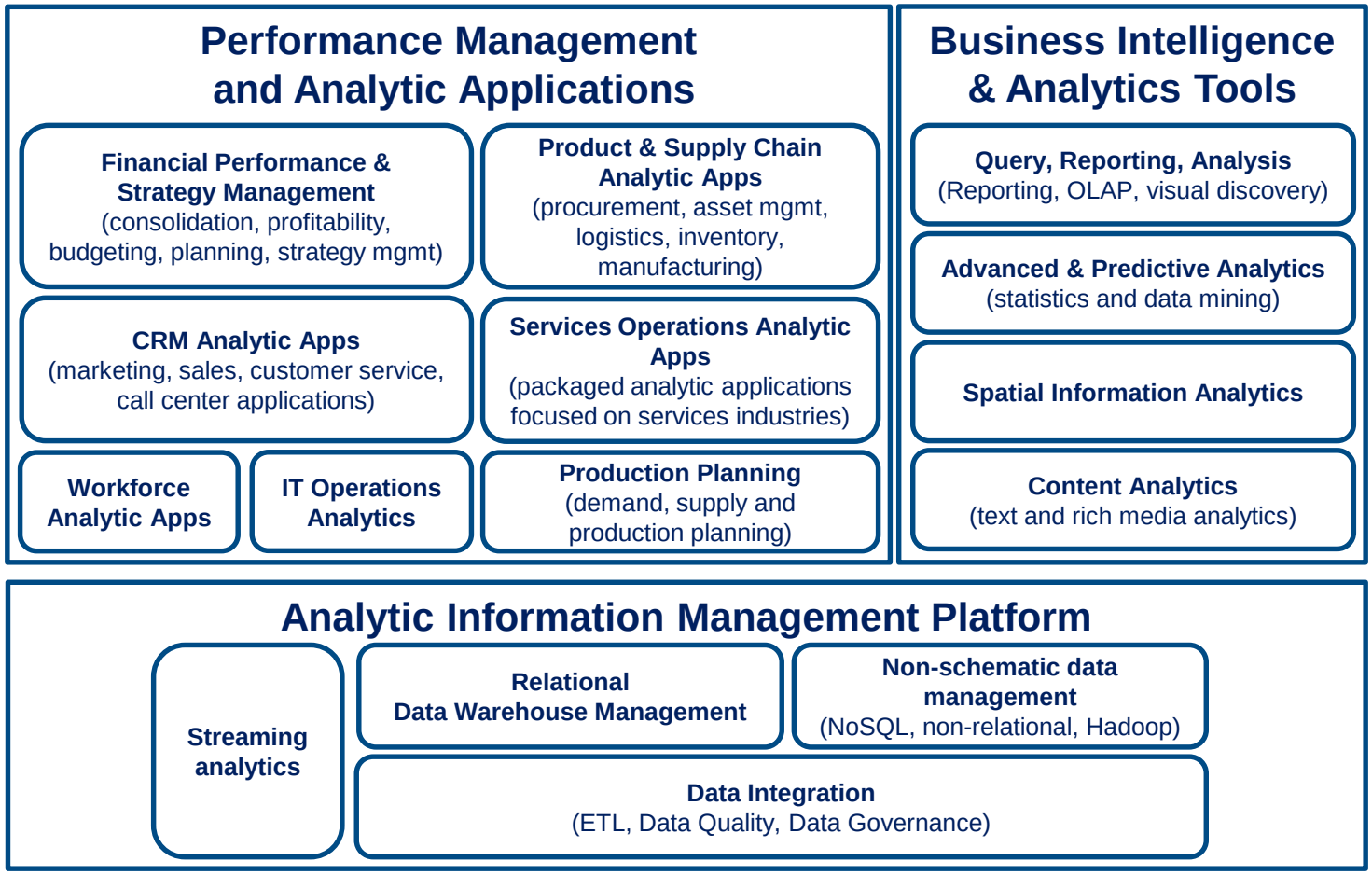
- **Industry & Market Overview**
- **Buyer Perspective**
- **Future View of the Market**
- **Advice for the Technology Provider**

IDC Analyze the Future

Business Analytics Software Market Defined

- The business analytics software market represents a collection of software markets that functionally address all the steps in the lifecycle of decision support and decision automation processes. Various market participants may refer to these processes and business intelligence, business analytics, analytics, big data, etc.
- The business analytics software market has three primary segments: performance management and analytic applications, business intelligence and analytic tools, and analytic information management platform as shown on the next slide.
- IDC definition views **business analytics** as the overarching market **with big data** software as a subset of business analytics software that can address very large, fast moving, and diverse data sets.

Business Analytics Software Market Segments



Top Drivers

- **Availability of Data.** Digitization of everything and growth in data producers are driving demand for data capture, management, and analysis software. IoT, customer experience, and risk management requirements are some of the biggest factors contributing to this market driver.
  - **Impact:** These factors will have an especially strong influence on solutions that can provide real-time actionable intelligence.
- **Demand for Self-Service.** The need for on-demand access to the freshest data with easy-to-use tools or applications as well as a need for associated data integration and management tools continue unabated.
  - **Impact:** These requirements are driving purchasing of a range of tools that help ensure self-service functionality to support the full business analytics workflow.
- **Demand for Predictability.** Organizations are seeking predictability across all fronts. Predictability affects cash management, service delivery, process re-reorganization, and other aspects of running a business.
  - **Impact:** Growth in subscription pricing is one manifestation of this trend; another is the demand for applications with predictive functionality.

Top Inhibitors

- **Transition from On-Premises to Cloud Deployments.** Adoption of cloud (SaaS)-based business analytics solutions will accelerate, and cloud-only vendors and the cloud-based products of all vendors are expected to continue to grow faster than on-premises equivalent options.
  - **Impact:** Change in the revenue recognition model that accompanies the shift from on-premises to cloud deployments will have a negative effect on the revenue-based growth over the next three to four years.
- **Open Source Technology Options.** Open source business analytics solutions, from data integration and management software to advanced analytics and reporting tools, will continue to be broadly adopted. We expect open source components to represent the core of many major business analytics solutions.
  - **Impact:** Revenue-based market growth will be inhibited because of this trend as open source options continue to push down prices. This trend is also likely to accelerate transition from on-premises to differentiated cloud solutions that compete on added value above the functionality of core components.

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Majority of Organizations are Reporting Expansion and Change

In the past 12-24 months organizations have …

91% Expanded the type of analytic techniques used

77% Expanded data types and sources being analyzed

74% Started using new metrics or key performance indicators

76% Expanded the number of users with access to BDA solutions

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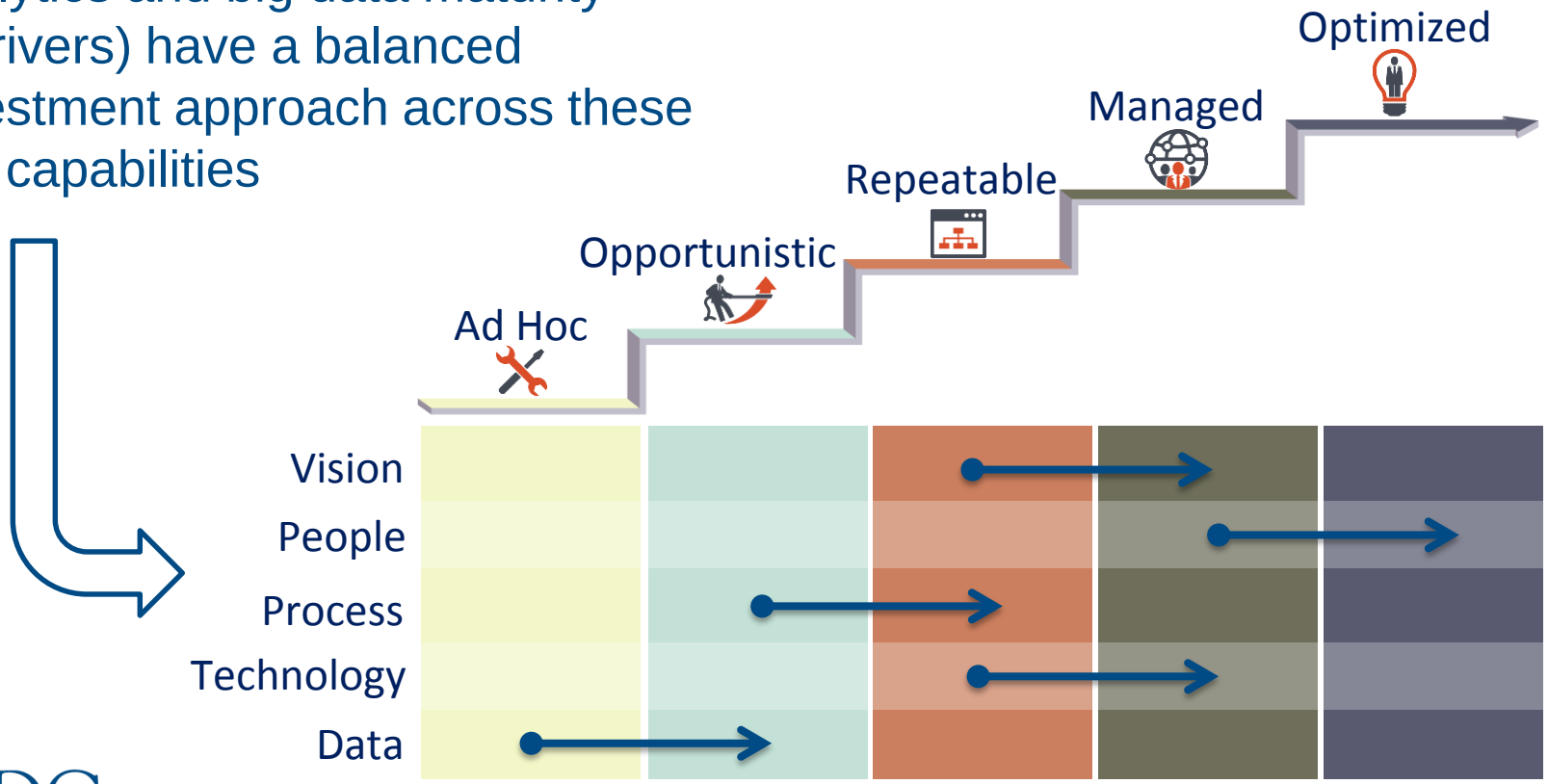
Buyer Behavior: a more pragmatic approach to business analytics

- Today, there is greater recognition that ‘big data’ is …
  - **Not only about large volumes of data.** Some data is fast moving and very little of it is stored. Data variety has become the most challenging issue.
  - **Not only about Hadoop.** Hadoop as a framework for parallel processing and as an ecosystem of open source technologies has become increasingly more adopted. But it is just one of many available technology options. Relational DW remains a staple of most organizations’ BDA architecture, and a range of non-relational software, such as NoSQL and Graph databases are available.
  - **Not only about analytics**. Analytics is a key step in the workflow. But the old adage of 'garbage in, garbage out' is only exacerbated in the era of ‘big data’. Only 15% of organizations cite that they completely agree that data in their organizations available for decision making is of high quality; and only 18% completely agree that it's timely. Data integration, movement, preparation, governance, and management as well as information dissemination and embedding of analytics into operational applications and processes are becoming greater priorities.

IDC MaturityScape: Big Data and Analytics

IDC MaturityScape

Organizations with greater business analytics and big data maturity (Thrivers) have a balanced investment approach across these five capabilities



Source: IDC Maturity Model: Big Data and Analytics — A Guide to Unlocking Information Assets, IDC #239771

Top Factors That Define Thrivers in the Business Analytics Market

Vision

Budgeting: Mix of centralized and localized budgets governed by enterprise-wide policies

People

Culture: Executive leadership strongly emphasizes a data driven culture, and mandates and incentivizes the use of data, analytics, and technology

Process

Measurement: Ongoing assessment, revision, and learning built into decision making across the organization, and business benefits can be quantitatively tied to initiatives

Data

Timeliness: Continuously processed data available on-demand and for relevant workflows throughout the enterprise

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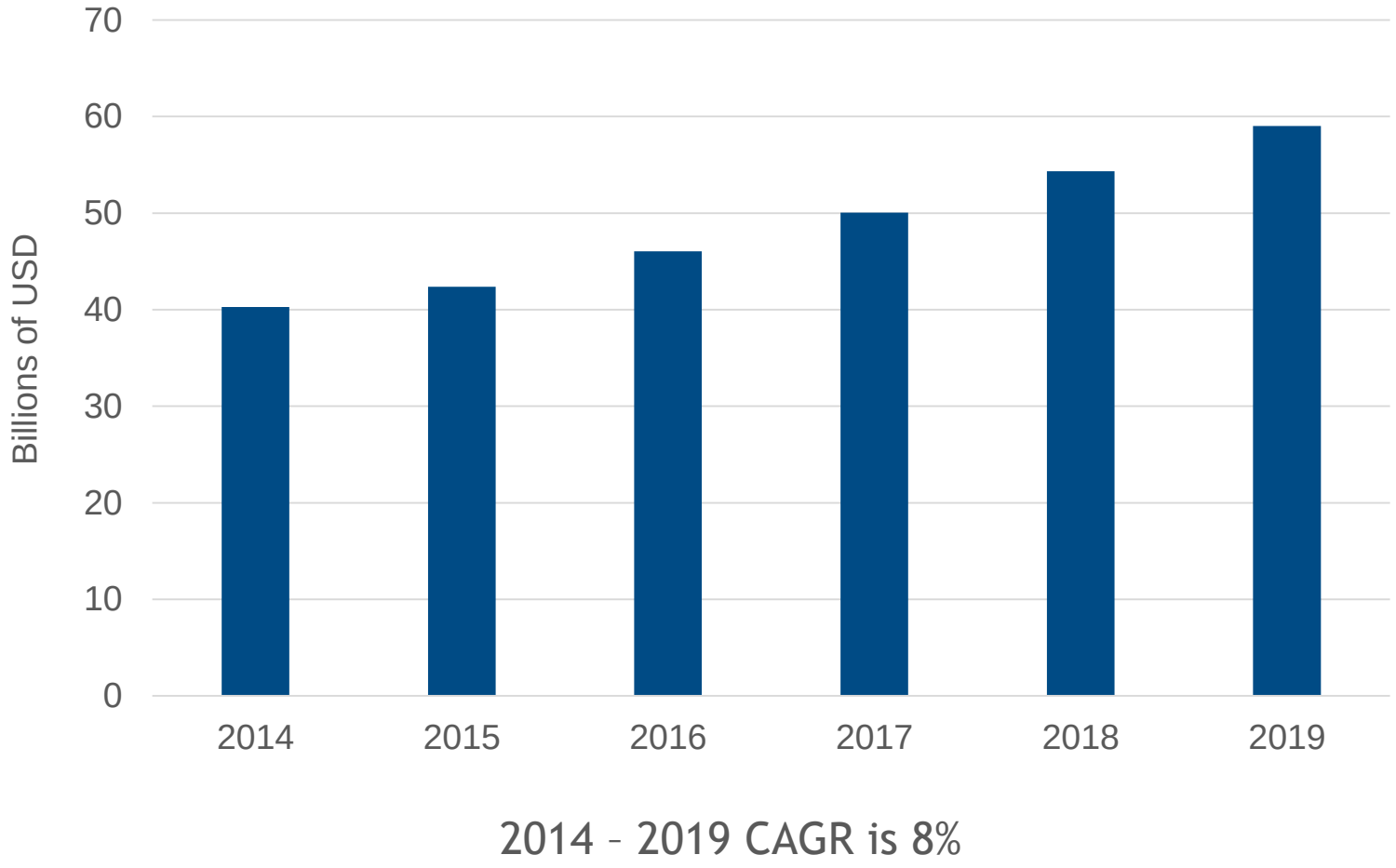
Worldwide Business Analytics Software Forecast



Source: Worldwide Business Analytics Software 2015 – 2019 Forecast, #257401, July 2015

Significant Market Developments

- **Cloud-based delivery** of business analytics software will continue to accelerate. 2015 represented a turning point in the availability of cloud business analytics as several large vendors have introduced new offerings.
- **Self-service** visual discovery software will continue to outpace the growth of other business intelligence market segments over the forecast period. Longer-term prospects of this market will be inhibited by the rise in cognitive computing, which will automate many of the currently manual data manipulation and analysis tasks.
- Solutions based on **cognitive computing** have begun to be adopted across industries. After decades of false starts by purveyors of artificial intelligence technology, the technology is finally ready to hit mainstream. Mass adoption will still take time as go-to-market, pricing, and packaging strategies evolve.
- The **data warehousing** market based on relational databases will continue to be disrupted by several non-relational and/or non-schematic information management software categories. Data warehouses will not disappear as they have a key place in an organization's data architecture. However, they will see lower growth as workloads will shift to other fit-for-purpose technologies.

Significant Market Developments

- The **data integration** process will become more complex. Data integration and data quality are the perennial top 2 challenges in IDC surveys of end users. The proliferation of data sources and types on- and off-premises is introducing new challenges.
- The **content analytics** software market, which had been dominated by text analytics, is rapidly expanding into audio, video, and image analytics. We expect the rich media analytics sub-segment of this market to experience rapid growth.
- The **advanced and predictive analytics** (APA) software market will evolve to address some business analysts — not only data scientists. This trend has already started but will require substantial changes to existing APA software to accommodate new user interfaces and workflow management, collaboration, and automation features.
- IDC expects **acquisition activity** to pick up over the forecast period. There are still several large IT vendors that claim to be in the business analytics or big data market but have limited software portfolios to back those claims. At the same time, there is a large number of start-ups introducing new solutions and midsize vendors that continue to outpace large IT vendors' business analytics revenue growth.

Long Term Predictions

- **Analyzable.** By 2020, the high value data – part of the Digital Universe – that is worth analyzing will double. Portion of Digital Universe that is potentially of value will continue to rise as technology to separate signal from noise advances and is more broadly deployed. There will be rapid growth in the adoption of rich media analytics and machine learning.
- **Actionable**. By 2020, 60% of information delivered to decision makers will be considered by them always actionable – doubling the rate from the current level. Advances in and adoption of cognitive computing and analytic-transactional data platforms and applications (enabled by in-memory computing) will ensure delivery of actionable information to decision makers including executives, managers, front-line employees, and increasingly automated systems.
- **Beneficial.** By 2020, organizations that are able to analyze all relevant data and ensure that the derived information is actionable will achieve an extra $430 billion in productivity benefits over their less analytically oriented peers. This figure does not include the additional benefits derived from increased revenue and decreased costs. Organizations that are able to take greatest advantage of the data by analyzing all relevant data and ensuring the results of the analysis are actionable will reap greater benefits than their peers or competitors.

- Industry & Market Overview
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Recommendation #1

- Recognize the range of use cases and deliver in fit-for-purpose technology.
  - While there remain many distinct segments of end users, such as data scientists, business analysts, operational employees, managers, there is also growing evidence of a blended roles.
  - Several vendors are in the process of delivering software that would allow business analysts to take advantage of predictive analytics without the need to become experts in math, statistics, or computer science.

Recommendation #2

- Respond to demand for self-service data access and analysis.
  - Self-service in the context of business analytics is not only visual discovery within the query, reporting, and analysis segment of the market. It also has to reach back to self-service data acquisition and preparation.
  - View self-service as a must-have capability to enable rapid experimentation across business analytics and big data processes.

Recommendation #3

- Consider the emerging big data and analytics information management architecture that is expanding from the commonly used relational data warehouse to several other technologies.
  - The architecture becoming more expansive with growing deployments of Hadoop clusters and a range of NoSQL databases.
  - The rest of the business analytics software stack has to accommodate this information management platform expansion.

Recommendation #4

- Enable operationalization of analytics to ensure results of analysis reach the appropriate operational systems and employees.
  - Analytics is not an end in itself but rather a step in the process of decision making and execution.
  - Business analytics software needs to be connected to the various operational decision execution points within the organization.

Summary:
Toward Digital Transformation

- Business analytics software provides the functionality needed to address decision support and decision automation.
- Business analytics is on of the 4 Pillars that form the foundation for innovation accelerators
- The 4 Pillars and Innovation Accelerators provide the necessary technology to drive Digital Transformation.