# Reporting, Analytics & Business Intelligence (BI)

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## Data and Analytics are Changing the World

Data is the fuel that powers analytics...and there is more of it available than ever before

90%

of the data that exists in the world today was created in the last two years

In organizations that are using big data today, users report **overwhelming satisfaction** with their results, according to a new Accenture Analytics survey, and see big data as a **catalyst for their transformation** as digital enterprises.

—Accenture

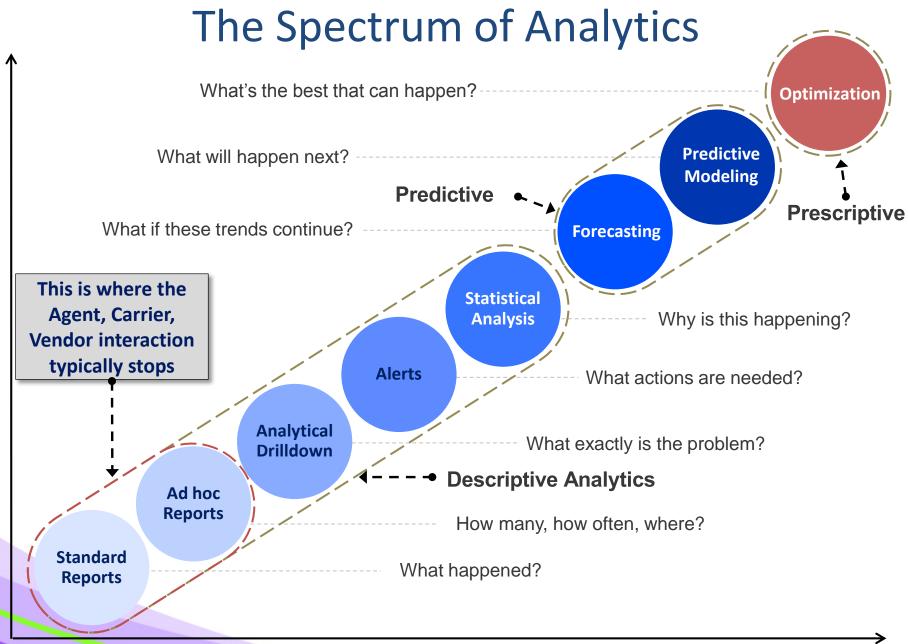
Studies show that organizations that apply analytics outperform their peers. Further, those with a broad-based, analytics-driven culture perform, on average, three times better. Not only do they drive more top-line growth and control costs, they take timely corrective action to reduce risks that derail their plans.

-IBM

Today's advanced analytics in insurance push far beyond the boundaries of traditional actuarial science.

McKinsey

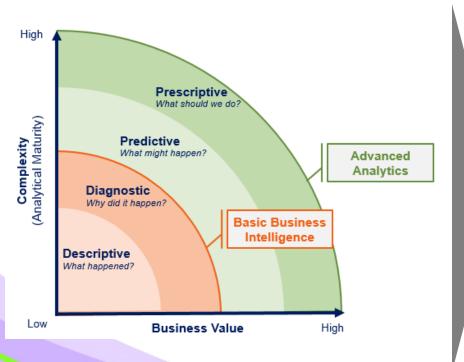




### Analytics is Quickly Becoming a Competitive Differentiator

The industry is experiencing a fundamental shift towards predictive & prescriptive analytics

## **Emerging Techniques are Being Utilized Across the Industry...**



#### ...Allowing Managers to Better Understand Their Business

- ✓ Customer Experience
- ✓ Strategy & Growth
- ✓ Marketing, Sales & Distribution
- ✓ Product, Pricing, & Underwriting
- ✓ Process & Operations
- ✓ In-Force Management
- ✓ Capital, Risk, & Finance



Emerging

## Advanced Analytics Uses Data to Derive Insights in New Ways

#### **Network analysis**

Discover meaningful nodes and relationships on networks

#### **Optimization**

Improve a process or function based on criteria

#### Deep QA

Find answers to human questions using artificial intelligence

## Natural Language Processing

Extract meaning from human speech or writing

#### Visualization

Use visual representations of lata to find and communicate information

#### **Predictive Modeling**

Use data to forecast or infer behavior

## Complex Event Processing

Combine data sources to recognize events

#### Sentiment Analysis

Extract consumer reactions based on social media behavior

#### A/B/N Testing

Experiment to find the most effective variation of a website, product, etc.

#### Classification

Organize data points into known categories

#### **Simulation Modeling**

Experiment with a system virtually

#### **Spatial Analysis**

Extract geographic or topological information

#### Regression

Discover relationships between variables

#### **Time Series Analysis**

Discover relationships over time

#### **Signal Analysis**

Distinguish between noise and meaningful information

#### **Cluster Analysis**

Discover meaningful groupings of data points

**Structured** 

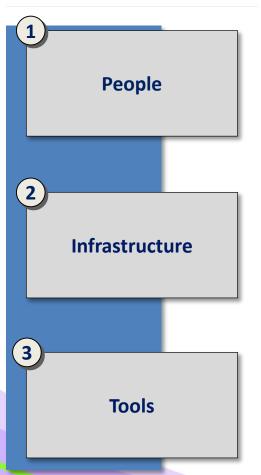
Data

Unstructured



## What investments are need to make analytics a competitive advantage?

#### **Investments**



#### **Key Considerations**

- Attracting, hiring and retaining is a challenge and not cheap
- Recognize need for technical and business expert
- Management expertise
- Leadership commitment must be evident
- Well-designed internal systems
- Ability to capture data from external sources and vendors
- · Timely availability of data
- Data quality and integrity controls
- Data modeling expertise
- Cost-effective and scalable
- Right tool for the right problem (e.g. extraction, analysis, presentation)
- Utility and compatibility

## Forum Discuss – Key Questions

- How can agents, carriers and vendors work together to leverage BI and analytics to collectively grow our businesses?
- What are common roadblocks we face today?
- What data and information is needed today that is difficult to get?
- What existing tools are being used to analyze and report results?
- What external data do you want that you do not have?
- How do we tackle this collectively given that scale matters?