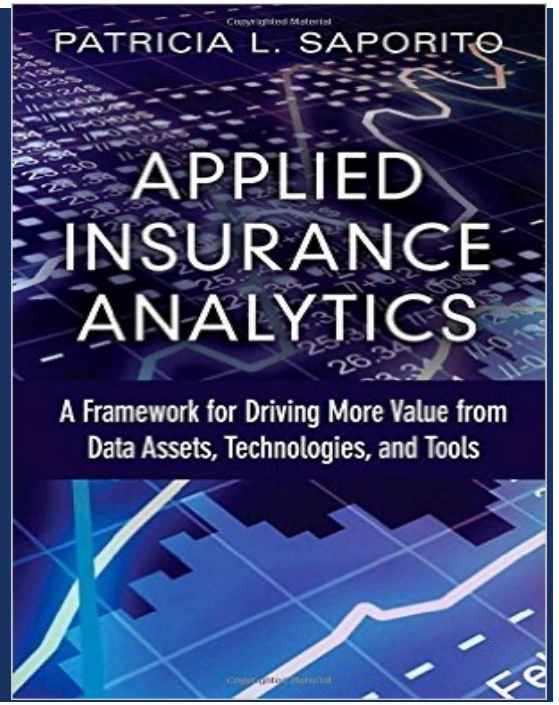
UPSKILLING THE CLAIMS WORKSFORCE IN THE ERA OF BIG DATA

PRESENTER: PAT SAPORITO, CPCU

MARCH 17, 2021



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SAPORITO & ASSOCIATES

Patricia Saporito, CPCU
Founder & Principal Consultant

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Qualifications and Focus Areas

Functional Experience	Education/Designations
▪ Management Consulting ▪ Business Analytics ▪ Data Strategy ▪ Data Warehousing ▪ Performance Management	▪ B A, Pace University; Insurance & Risk Mgmt., Information Systems ▪ Chartered Property Casualty Underwriter ▪ Fellow of Insurance Data Management

Profile

She is the founder and principal consultant for Saporito & Associates, helping companies improve business performance and innovate with data and analytics.

Previously she led the global analytics strategy program at SAP and the insurance and healthcare industry consulting team at Teradata.

Pat is an advisor and mentor for Stevens Institute of Technology's Data Analytics Masters Program and a mentor for the Global Insurance Accelerator. Pat has been an advisor for the Int'l. Institute for Analytics, co-founded by Tom Davenport.

Pat has over 10 years in claims in a variety of field and home office positions and holds the CPCU designation.

Consulting & Related Experience

Consulting Focus areas:

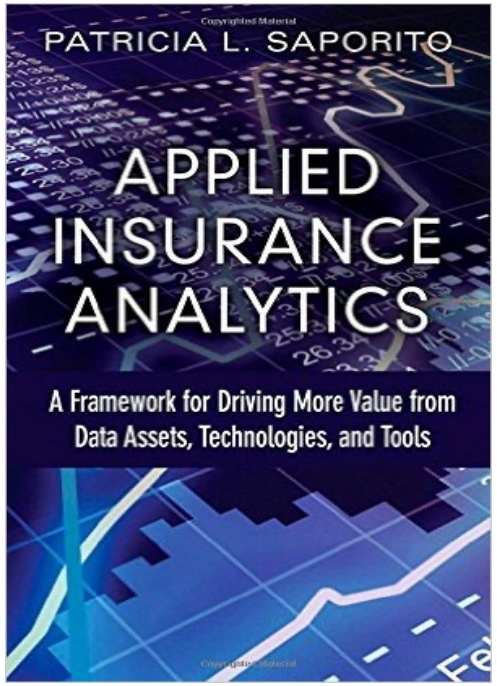
- Enterprise Data & Analytics Strategy
- Business and IT Alignment
- Culture and Change Management
- Performance Analytics and Performance Management

Industries:

- Insurance/Financial Services, Healthcare, Life Sciences, Consumer Products, Retail, Utilities, et al.

AGENDA

- Data & Analytics Trends
- Claims Opportunities
- Data & Analytics Challenges
- Improving Analytics Capabilities
- Next Steps



DIGITAL ECONOMY: CREATING EVEN MORE DATA & MORE DEMAND

~33x

data growth
1.2 zettabytes in 2010
40 zettabytes in 2020
175 zettabytes by 2025

212 Billion

"Things" will
be **connected**[3]

43%

of insurers plan to or
have **acquired**
innovators/startups for
innovation capabilities[2]

72%

of insurers are
forming **new**
partnerships[2]

Enabling
advanced
analytics

Facilitating
smart processes
and ecosystems

Innovating
business processes
and products

Connecting
new channels
and partners

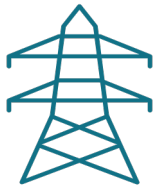
1 IDC, Digital Universe in 2020
2 Accenture Digital Innovation Survey 2014
3 IDC, Internet of Things (IoT) 2013 to 2020 Market Forecast: Billions of Things, Trillions of Dollars

DIGITAL: 4TH INDUSTRY REVOLUTION
NEW BUSINESS MODELS, CUSTOMER EXPERIENCES & VALUE PARADIGMS

1700's

Steam

- Mechanization
- Steam Power
- Loom



1800's

Electricity

- Mass Production
- Assembly Line
- Electrical Energy

1900's

Computing

- Automation
- Computers
- Electronics

Today

Connected

- Cyber-Physical
- AI/IOT
- Autonomous Vehicles

Source: PWC

Data and analytics are driving change and innovation in the Digital Economy!

IOT/Sensors for Workplace Safety

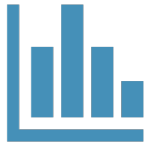
- Activity trackers and alerts provide stress warnings; reminder workers to take breaks before accidents occur
- Wearables (e.g., smart shirts)provide worker biometric and environmental hazards in extreme environments
- Smart hardhats provide worker field awareness and hazard insights for man-down and/or “no go” zones

DATA DRIVEN DECISIONING

- Decisions that are **backed up by hard data** vs. intuition or mere observation.
- An organization is data-driven when it uses data & analysis to help **drive action or deliberate non-action.**

- **Data Driven Organizations**
- Use data to make decisions vs. justifying decisions
- Rely on facts vs. intuition

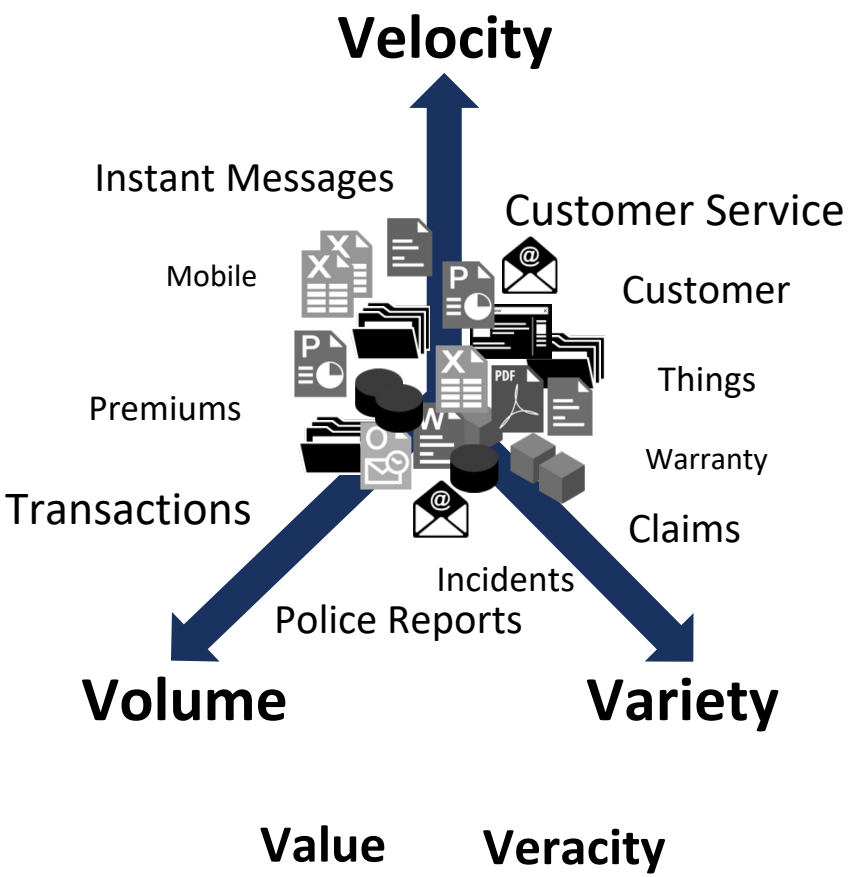
DATA DRIVEN ORGANIZATION TRAITS



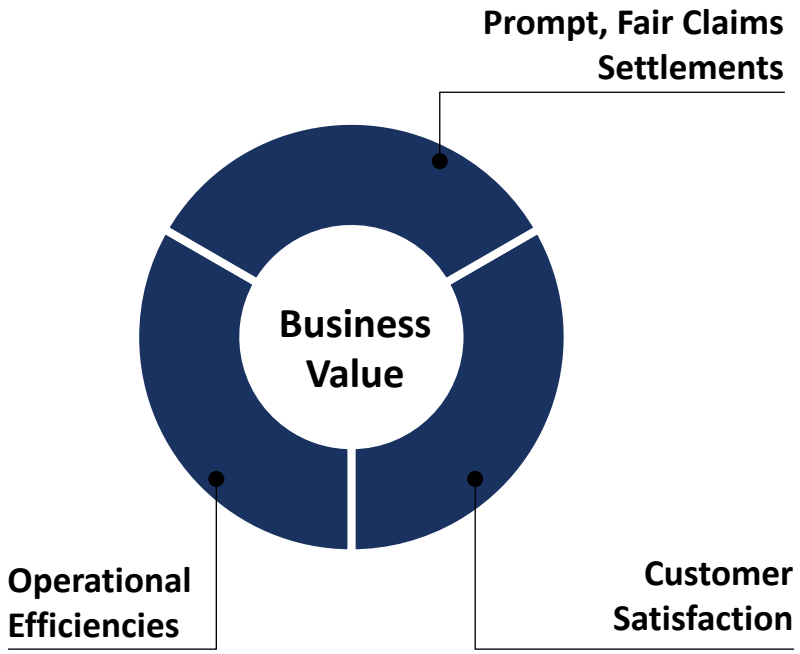
- **Align analytics priorities** to strategic business vision and initiatives
- **Embed analytics into decision making** and workflows
- Develop **advanced data analytic assets** (e.g., data lakes) and teams
- Invest in **critical analytics roles** (chief analytics officer, data scientists)
- Enable user **evolution/democratization**

BIG DATA PROMISE: TRANSFORMATIONAL BUSINESS VALUE

CHARACTERISTICS

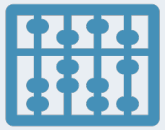


APPLICATIONS



New Strategies and Business Models

CLAIMS INNOVATION CONTINUUM

	Claims Journey	Past	Present	Future	Enablers	Data
	1st Notice of Loss	Complex Forms that require explanation	Self reporting via phone, website, mobile app	Automatic detection via IOT, satellite, et al.	Satellite imagery, sensors, et al.	Police/Fire Reports Google
	Claims Administration	Paper based	Paper + electronic	Digital augmentation; AI advised	Connected systems, AI /ML	Conversational
	Data Gathering/ Fraud Detection	Basic fraud analytics (reactive)	Manual + predictive models	AI enabled, Next-Gen fraud algorithms	Big data, AI/ML	All Industry DB Public Records Video
	Claims Evaluation/ Adjudication	Manual inspection and reserving	Manual + technology enabled evaluation and reserving	AI enabled, primarily automated adjudication	Computing power, AI/ML	Vendor Apps Medical Reports Court Records
	Settlements & Recoveries	Payment via checks, drafts	Payment via EFT Provider direct pay	Instant electronic settlement; AI enabled vendor selection	Linked payment systems AI/ML	Warranty Data

Source: Swiss Re Sigma No1 /2020

CASE STUDY: CUSTOMER EXPERIENCE COMMUNICATION PLATFORM

hi marley

Texting SMS platform that bridges the conversation between insureds and the entire insurance ecosystem.

- **Underwriting**
- **Claims**
- **Customer Service**

Claims

Underwriting

Policy Interactions

Mass notification prior to cat events and FNOL tracks	Auto Translate in 11 languages	AI-enabled scripts/routine questions	Core policy and claim system APIs to connect data server, software, and apps

Hi Marley via YouTube: Product Overview

Technologies: AI, Text Analysis, Sentiment Analysis

Improves communication, increases process efficiency and builds stronger relationships higher customer retention and lifetime (LTV) value … while reducing costs and cycle time.

CASE STUDY: DRONE UW AND CLAIM INSPECTIONS

CHUBB

Use of drones for property risk and claim inspections speeds inspections, policy issuance and claim payment.

- Underwriting
- Claims

Chubb began use of drones in 2017 for underwriting inspections but quickly adapted to use for claims.

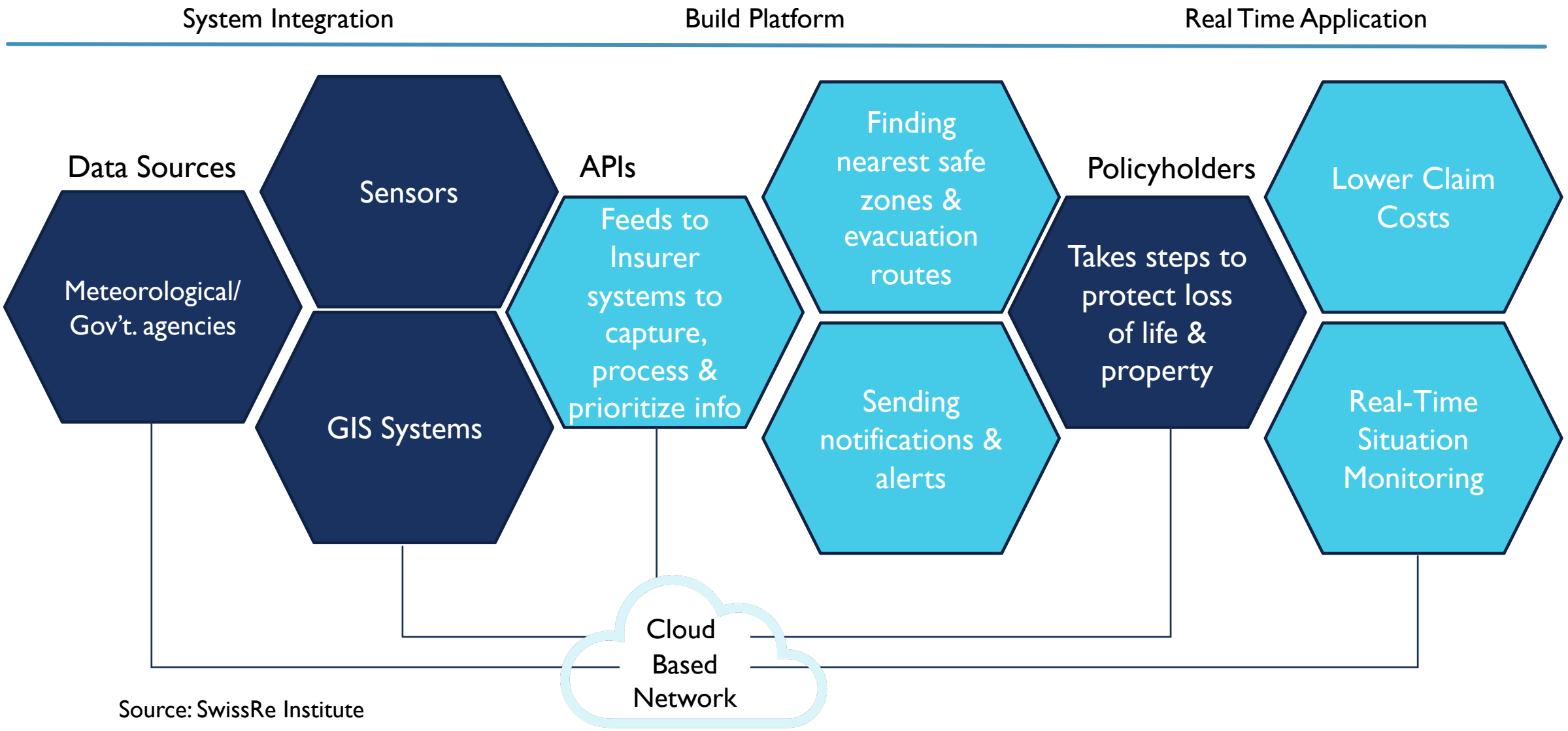
During Hurricane Harvey and the ensuing California wildfires, Chubb deployed drones to capture images of areas impacted following these events.

Wall Street Journal: Insurers Are Set to Use Drones to Assess Harvey's Property Damage

Technologies: IOT, AI

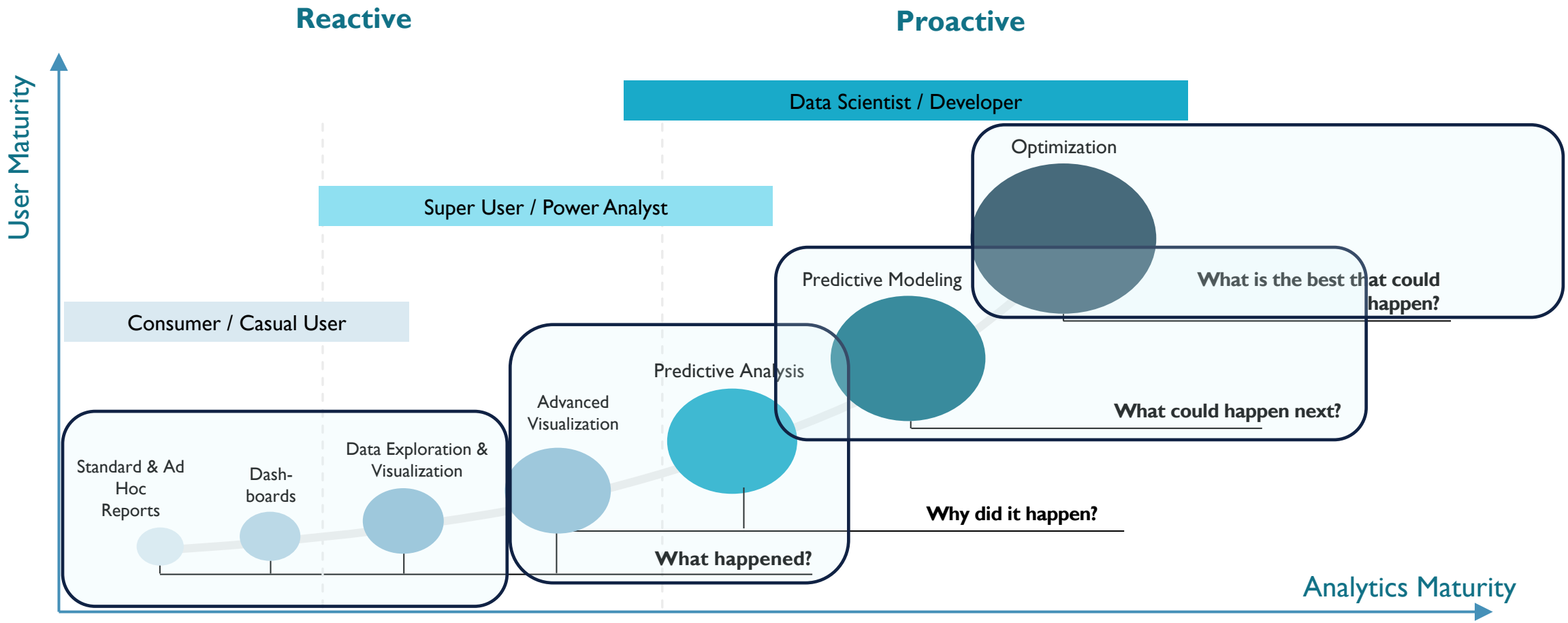
Use of drones reduces underwriting and claims costs and increases claim payment speed.

NEXT GEN CATASTROPHE RESPONSE



Source: SwissRe Institute

ANALYTIC MATURITY & USERS



Source: SAP

POLL

How would you rate your analytic maturity today?

A. Primarily Reactive

B. Moving toward Proactive

C. Solidly Proactive

D. Cutting Edge Proactive

DATA ANALYTICS CHALLENGES

People

- Skills
- Culture
- Change Management

Process

- Data Governance
- Analytics Governance
- Standards

Technology

- Databases
- Tools
- Environment

Data

- Access
- Timeliness
- Quality
- Relevance

POLL

In which of the following areas do you face your **greatest Data-Driven challenges?**

A. People

B. Process

C. Technology

D. Data

DATA / INFORMATION LITERACY

Data Literacy is the ability to:

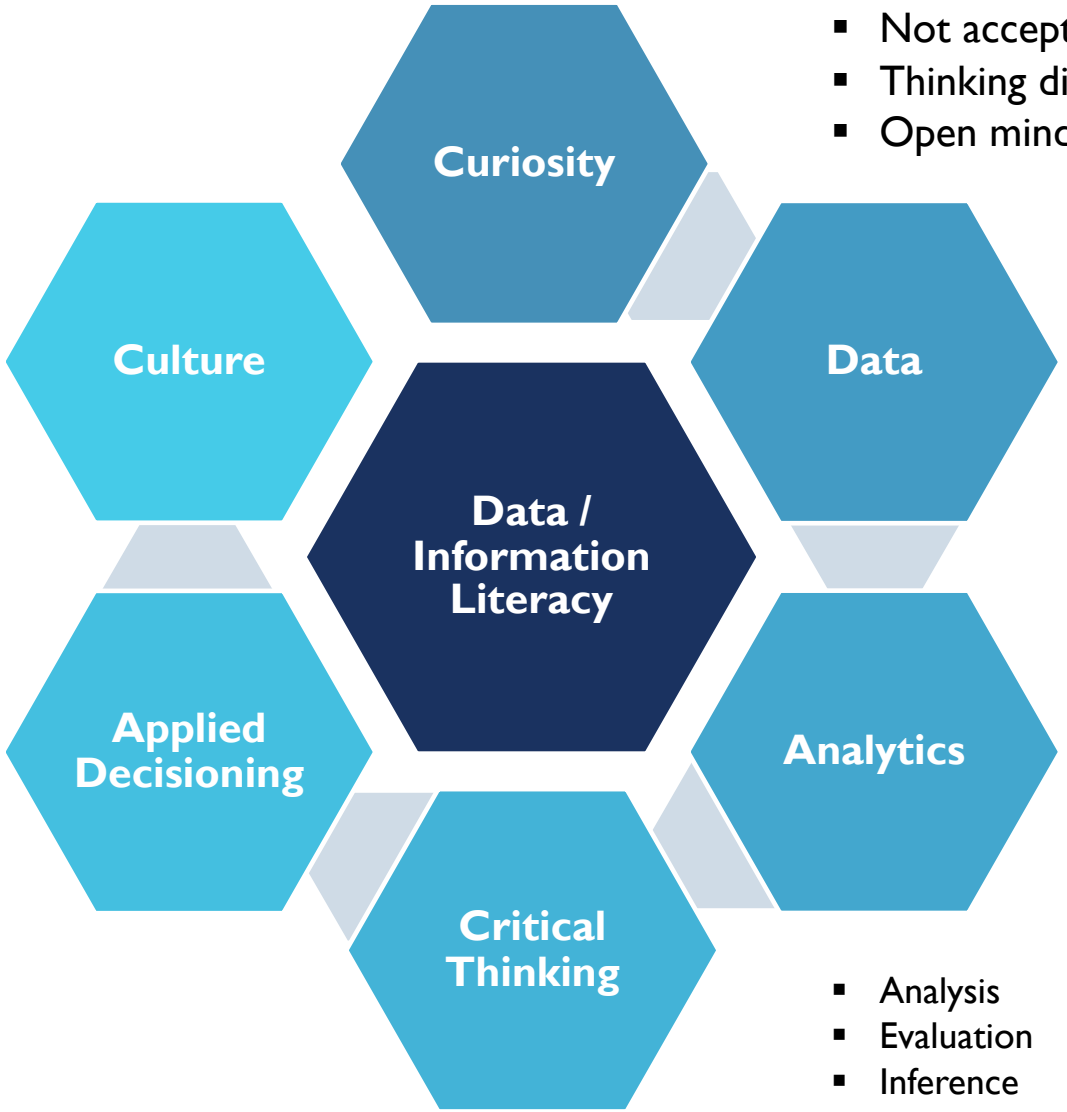
- read,
- work with,
- analyze, and
- argue with **data**.

Focuses on the **competencies** involved in working with **data**.

https://dataliteracyfoundation.org/

https://thedataliteracyproject.org/about

DATA / INFORMATION LITERACY SKILLS



- Not accepting status quo
- Thinking differently
- Open minded

- Data sourcing
- Data trust/ Relevance
- Security/Privacy

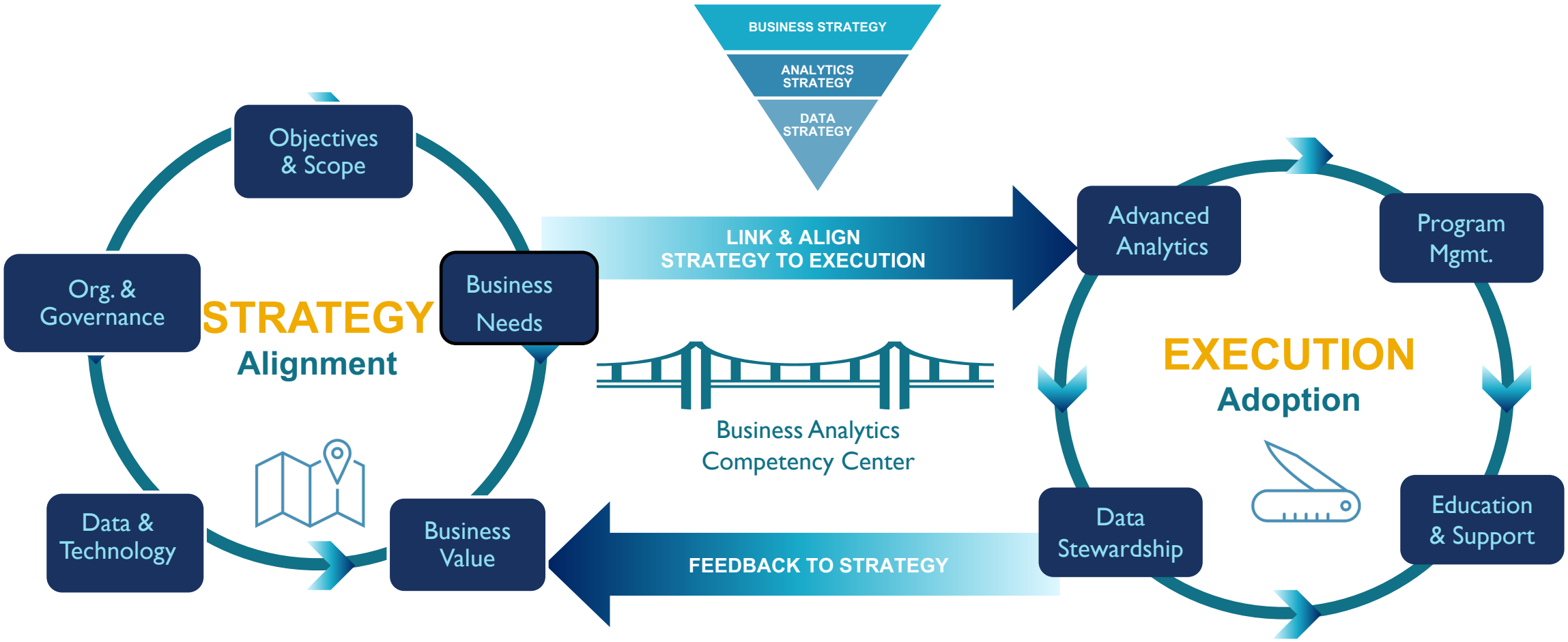
- Historical vs. Predictive
- Advanced Analytics (AI/ML)
- Ethics/bias

- Analysis
- Evaluation
- Inference

- Fact vs. intuition
- Data presentation
- Story telling

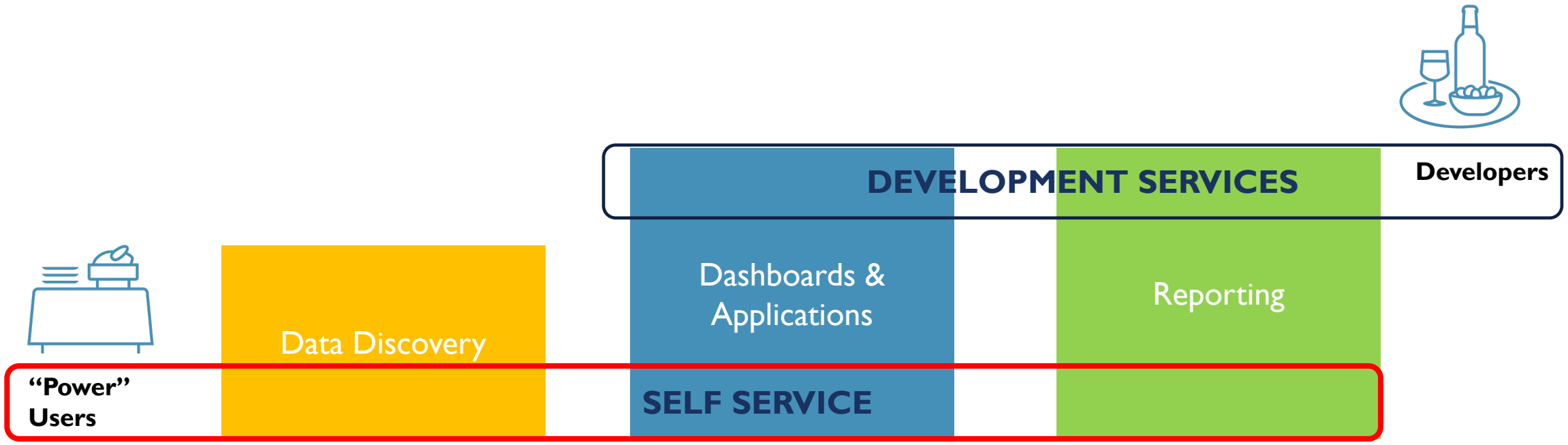
- Leadership
- Governance
- Change management

ENTERPRISE ANALYTICS: STRATEGY + EXECUTION



SELF SERVICE ANALYTICS

Self service: end users design and deploy their own reports and visualizations
with approved and supported architecture and tools



Self Service (Business Developed)

- Business analyst, system analyst or exec answer own questions
- Export to Excel or PDF, for departmental sharing
- Mobile or web-based self service

KEY DATA LITERACY COMPONENTS

Business Requirements & Data

- Define/Interpret Business Requirements
- Understand and transform the data

Visualizations

- Design, Build and Use Visualizations
- Interpret Visualizations

Results

- Analyze Results
- Act on Results
- Share Results

ANALYTICS ACTIONABILITY FRAMEWORK

Use this framework to define actionable analytics for any business problem/objective:

Business Objectives	Business Questions	Actions Enabled	KPIs	Data
What are your **top 2-3 business objectives?**	What **business questions do you need to answer** to achieve your objectives?	What **actions** could you take if you could answer these business questions?	What **Metrics or Key Performance Indicators** do you need to measure improvement?	What **data is needed** to answer the business questions? Where is the **data stored**? How **valid, timely, accessible** is the data?

ANALYTICS ACTIONABILITY: CLAIMS EXAMPLE

Objective	Business Questions/Analysis	Actions	Measurable Results & KPIs	Current Data	Other Data
Reduce claim costs	■ What are our indemnity payment trends? ■ What are our allocated expense trends? ■ How does average incurred by channel compare? ■ What is our average recovery for Subro? Salvage?	■ Improve reserving and settlement offers ■ Optimize claim service provider selection ■ Route claims to more effective channels ■ Earlier subro, salvage recovery referrals	■ Reduced indemnity costs ■ Reduced expense costs ■ Increased claims recoveries ■ Improved claim satisfaction/ reduced complaints	Paid Losses Paid Expense Loss Recoveries	Internal: • Customer Surveys • Claims Complaints External: • Social Media • DOI/ BBB complaints • Warranty Records
Improve claims productivity	■ Which are our most/least efficient branches? Adjusters? ■ What is our mix of claims events by channel, location, claim associate type? ■ What are our costs for staff vs. outsourced services?	■ Revise business processes ■ Develop claim training based on best practices ■ Outsource claims processes	■ Reduced claim processing costs ■ Increased claim associate retention		
Increase customer claim satisfaction	■ What is our claim customer satisfaction? ■ How does it correlate to customer retention?	■ Align customer service preference to channels	■ Increased claim customer satisfaction ■ Increased customer retention		

ANALYTIC DIMENSIONS: CLAIMS

Dimensions are characteristics, e.g., time, organization, coverage, channel, etc.

Time

- Monthly/Quarterly/YTD
- Accident Yr/Calendar Yr.
- Year over Year

Organization

- Company
- Region / Branch /
- Claims Professional

Coverage

- LOB
- Coverage Type
- Layer

Metrics

- **Core Metrics**
  - O/S Reserves
  - Losses
  - Expenses
  - Claim Count
  - Incurred
  - Recoveries
  - Cost to Adjust
  - Processing Times
  - …

Claimant

- Age
- Sex

Provider

- Provider Type
- Provider Name
- Provider Code

Adjudication Method

- Automated
- Manual

Recovery Method

- Salvage
- Subro
- 2nd Injury Fund

CHANGING JOB ROLES

Data & Analytics will become even more pervasive!
Artificial Intelligence and Machine Learning will automate even more traditional insurance jobs.

Fewer Traditional Jobs

- Underwriters
- Claims Adjusters
- Agents/Advisors
- Customer Service Representatives
- Traditional Actuaries

More Data & Analytics Jobs

- Data Analysts
- Business Analytics
- Data Scientists
- Statisticians

New Titles

- Customer Experience Mgr.
- Digital Analyst
- E-recruiter/Manager
- Forensic Accountant
- Forensic Claims Examiner
- User Experience (UX) Designer

How will you fare in the future?

How will you prepare for these new jobs?

SUMMARY/NEXT STEPS

- Understand What Data Driven Means
- Be a Champion
- Embed Data Driven Decisioning
- Recognize & Reward Data Driven Behavior

QUESTIONS?

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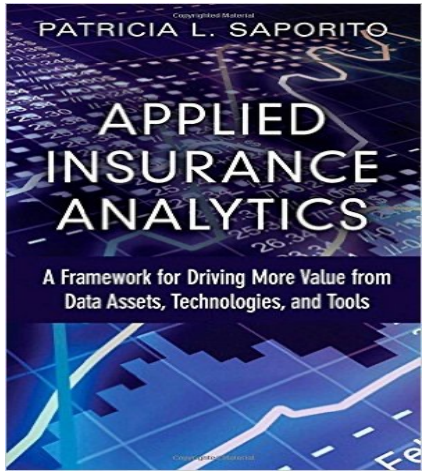

Applied Insurance Analytics book

Download overview chapter free!

- Applied Insurance Analytics elearning showcase
- **Password: AIAdem2020**

RESOURCES: FUTURE OF ANALYTICS

Reading

- Unleashing the value of advanced analytics in insurance. McKinsey & Co. Link
- Post Digital Technology Vision. Accenture. Link
- ACORD White Paper. Innovation: Essential to Digital Transformation and Evolution. Link
- Swiss Re Sigma No1 /2020: Digital Insurer
- P/C Insurers look to Innovation to Overcome System/Process Inefficiencies. Best's Special Report. Sept. 24, 2018.
- 15 Essential Digital Roles…, Forbes Agency Council. Link

Videos

- Top 10 Strategic Technology Trends for 2020. Gartner Group. Link.
- Beyond Digital Frontier. Deloitte. Link