

BusinessConnect and SolutionsConnect

It's time to make bold moves.

SMARTER RISK

**Building trust and value
amidst uncertainty**



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The environment in which we do business today is more complex than ever, and riddled with uncertainty

Profitability pressures

Emergence of Big Data

Capital shortage

Emboldened, socially active customers

Significant skills gaps

Unprecedented cybercriminal access to technology

Increasing social, government & regulatory pressures

Changing business models

Why now?

**More than
\$30B lost**

when a large financial institution **failed to assess known risks** on its derivatives in its models ¹

**42% of top
100 losses**

since 2007 have been **boundary events**³

**210 loss events
over \$1B**

as of Q1 2014, vs. **9 as of 2007**⁵

**\$33,000
per minute**

cost of average **retail banking attack** ²

40 million

**credit and debit cards
compromised** in a recent retail cyber attack ⁴

¹ Protiviti Global Consulting, "Model Governance and Effective Risk Management," 2012

² Ponemon study of Retail Banking, 2012

³ IBM Algo FIRST Database

⁴ IBM Algo FIRST Database

⁵ IBM Algo FIRST Database

Rich new and existing data sources present an opportunity, with the right technology

1 trillion •

connected objects and devices on the planet generating data by 2015

80% •

of the world's data is unstructured. Audio. Video. Sensor data. Social media. All represent new areas to mine for insights



• **2.5 billion**

gigabytes of data generated every day

Drive business outcomes

apply more sophisticated analytics across more disparate risk data sources

e.g. external loss databases, sentiment analysis

Change the game

with predictive analytics, advanced visualizations across risk types

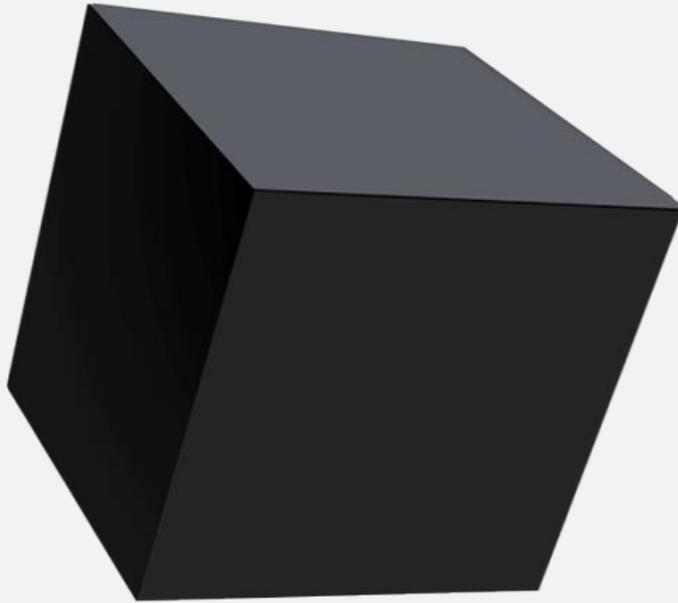
e.g. predictive KRIs, trend analysis

Capture the time value

by developing "speed of insight" and "speed of action" as core differentiators

e.g. real-time front office decision support OR trust analytics

Most organizations today lack complete trust in their risk management process, and cannot derive full value from them. It's a Black Box.



85%

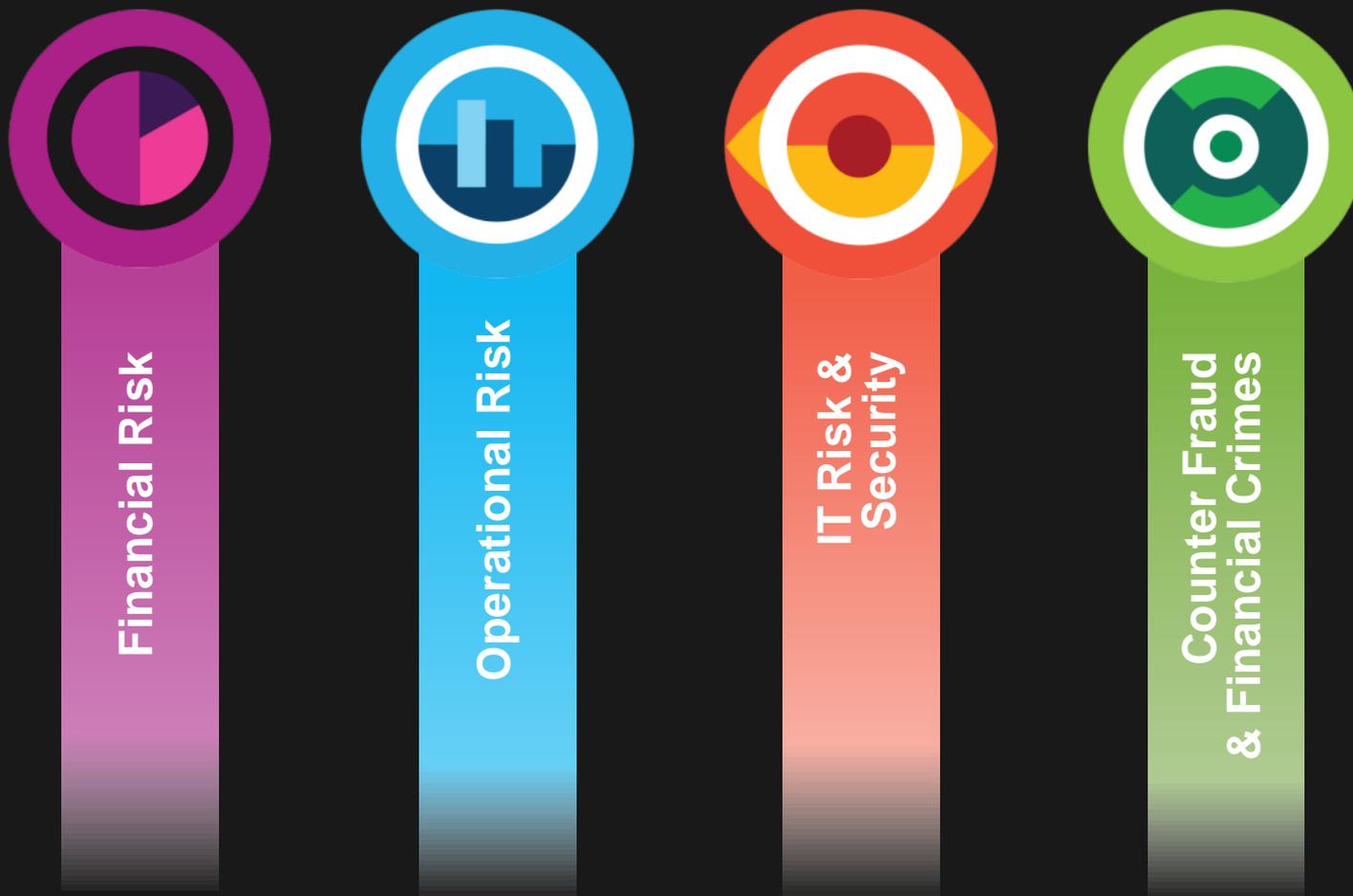
of respondents in a 2012 survey have little or no trust in their risk weights, and confidence is falling rapidly¹

¹"Constraining discretion in bank regulation," Andrew Haldane, Bank of England, April 9 2013

What if you could break down the Black Box?



Managing risk in silos will not get you there



We must bring together an interconnected view of risk across the enterprise



A Smarter Risk approach: Govern your data



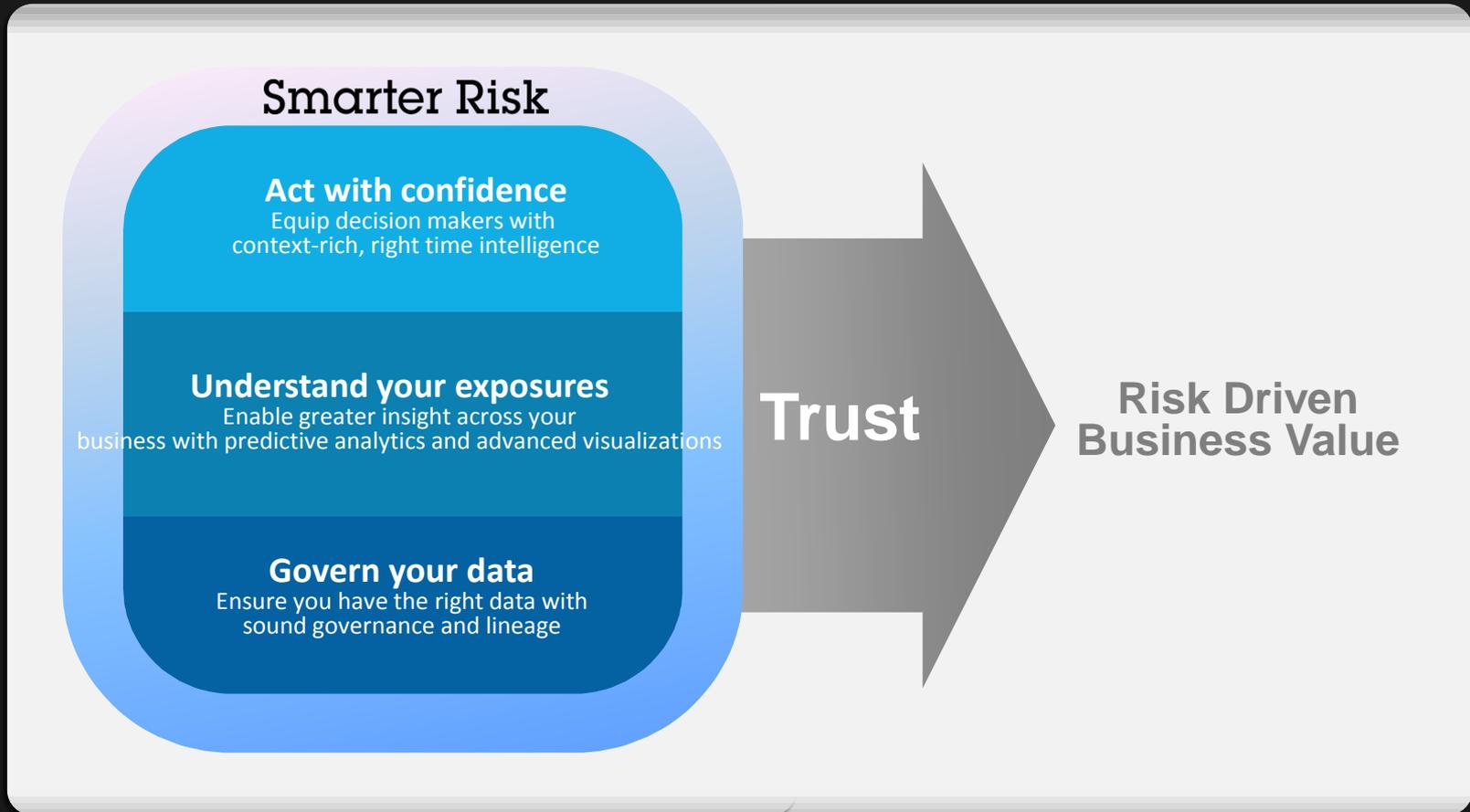
A Smarter Risk approach: Understand exposures across the organization



A Smarter Risk approach: Equip decision makers to act with confidence



A Smarter Risk approach: Build trust and value amidst uncertainty



IBM is innovating within each area...

Operational Risk

- **Predictive analytics enhanced with advanced visualizations** help you proactively manage enterprise-wide risk exposures
- Supporting a risk-enabled ecosystem with **aggregated control and incident data** from operational systems
- **Ensure a holistic approach to enterprise risk governance** with real-time policy and compliance monitoring



Financial Risk

- **Trust analytics** enhance decision makers' ability to act confidently on risk information
- **Risk-aware business planning** supported by aggregated risk dashboards that pull from across risk silos
 - **Real-time risk intelligence and decision support** equips the front office to price every transaction adjusted for risk



IT Risk & Security

- **Predictive analytics** that help prevent breaches and mitigate security and resiliency threats
- **Cognitive learning technology** and security services that enable continuous operations and increase customer confidence
- IT risk, threat & security analytics that fortify existing safeguards and compliance mandates in the era of **Cloud and Mobile**

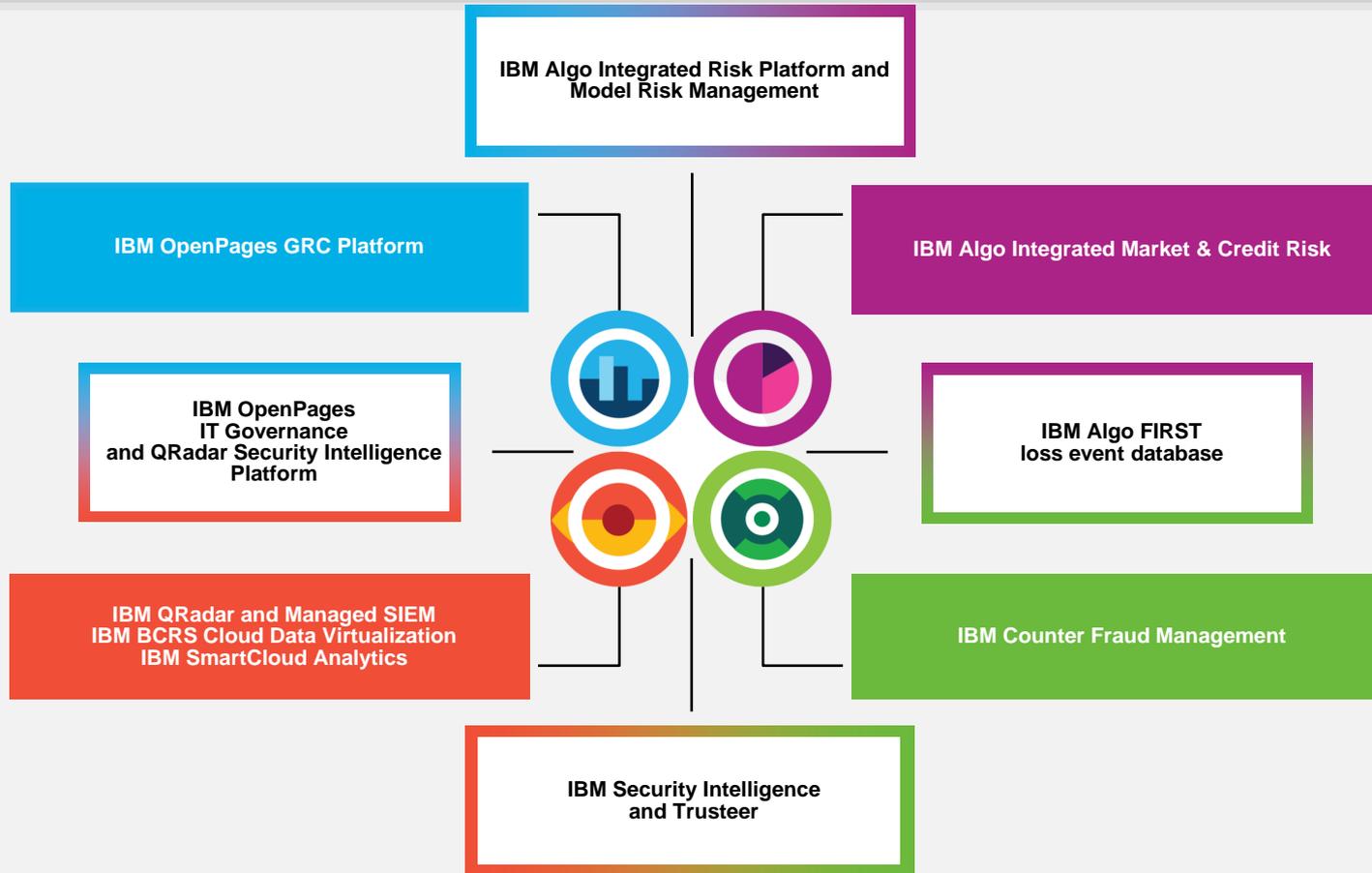


Counter Fraud & Financial Crimes

- **Advanced, multi-layered analytics** provide more accurate detection and investigation
- Ability to derive heightened insights by **investigating information from disparate sources** to develop richer profiles and real time risk weightings
- **Out-of-the-box integrated capabilities** across the entire fraud management lifecycle reduces cost and risk



...and in bridging across risk domains



Our customers are seeing results

Operational Risk

99% time savings

Creating risk reports in just 3 hours vs. 30 days helps decision-makers at DCV develop and action future business strategies based on real, up-to-date evidence about the potential risks

Depósito Central de Valores (DCV)



Financial Risk

15% benefit

in credit lines optimization with a powerful analytics solution that conducts millions of scenario simulations pre-deal, pricing trades more accurately, providing more flexibility and room for business with its customers

Italian bank Intesa Sanpaolo

IT Risk & Security

30 potential offenses found amongst **30,000,000** events per day

Canadian Financial Services firm

Counter Fraud & Financial Crimes

50% faster fraud detection improves fast tracking of legitimate claims to improve customer experience

\$1.4 billion in increased profits

Large Korean Insurance company

Our commitment to deliver Smarter Risk is unmatched

Technology

\$24 billion

invested to date to build IBM's capabilities in Big Data and analytics, with \$7 billion in organic investment

Expertise

**More than
1500**

dedicated risk professionals

Vision

2/3

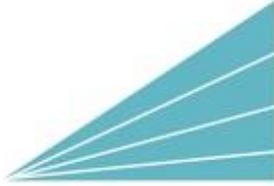
of IBM Research is focused on data, analytics and cognitive computing

Chartis' The Risk Enabled Enterprise™

A two-year research program launched in May 2013 and sponsored by IBM



Chartis



The
Risk
Enabled
Enterprise™

Register to participate
and receive updates at
www.chartis-research.com/tree

- Quarterly series of surveys
- Quarterly publications
- Webinars

Research topics include:

- Model risk management
- Enterprise-level stress testing
- Conduct risk
- Risk-based performance management
- Risk Enabled Enterprise maturity model

Engage with Smarter Risk on the web

Critical thinking and expert insight on risk management

The screenshot displays the Smarter Risk website interface. At the top left is the IBM logo. The main header reads "Smarter Risk Financial & Operational Risk". Below this is a navigation bar with tabs for "Overview", "Smarter Risk Journal", "Blog", "Videos", and "Resources". A decorative graphic of two interlocking circles with data points is on the right. The main content area is titled "Critical thinking. Expert Insights." and features a large graphic of a person surrounded by colorful arrows. To the right of this graphic is a featured article titled "In conversation: Wrong-way risk with Jon Gregory and Alex Kreinin". Below this are three columns: "Smarter Risk journal" with three article entries, "Featured Resources" with three resource entries, and "IBM Risk Analytics" with a descriptive paragraph and a link to "For more about IBM's risk analytics".

Smarter Risk
Financial & Operational Risk

Overview Smarter Risk Journal Blog Videos Resources

Critical thinking. Expert Insights.

In conversation: Wrong-way risk with Jon Gregory and Alex Kreinin
Wrong-way risk was a key part of the global financial crisis. What is it, why is it important and how is it impacting financial firms today?
[Read this article](#)

Smarter Risk journal [More Articles](#)

- Enterprise risk governance: The key to the risk-enabled enterprise**
by - Diane Reynolds and Neil Bartlett Dec 3, 2013
- When models fail: A path forward for model risk governance**
by - Peter Timotejew and Neil Bartlett Dec 3, 2013
- Evolution for efficiency: Active Collateral Management**
by - David Wechter and Fraser Schad Dec 3, 2013

Featured Resources

- Wholesale banking: Challenges in automating commercial credit risk mgmt**
- Market practice for calculation and reporting of wrong-way risk**
- Risk governance, big data and cultural alignment**

IBM Risk Analytics
Massive growth in data. Daunting regulatory demand. Market uncertainty. Capital constraints. Faced with these challenges, risk management is evolving into a holistic, strategic function capable of using risk intelligence to unlock value across the organization. Visit here for critical thinking and expert insights to help navigate these changes.
[For more about IBM's risk analytics](#)

ibm.com/SmarterRiskAnalytics

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Thank You



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