SCHNEIDER DOWNS

The ERM Revolution: Advancing the Cause

April 26, 2017

Presented by:

Jim Yard and Don Owens

Big Thinking. Personal Focus.

SCHNEIDER DOWNS

Contact Information

Donald R. Owens, Shareholder

Risk Advisory Services

CPA, CITP, CFF, CIA, CFSA, CRMA, CBA

Schneider Downs & Co., Inc.
65 E State Street, Suite 2000
Columbus, OH 43215

dowens@schneiderdowns.com
Work Phone: (614) 586-7257
Cell Phone: (614) 271-8551

James B. Yard, Shareholder

Risk Advisory Services

CPA, CIA, CISA

Schneider Downs & Co., Inc.
One PPG Place Suite 1700
Pittsburgh, PA 15222

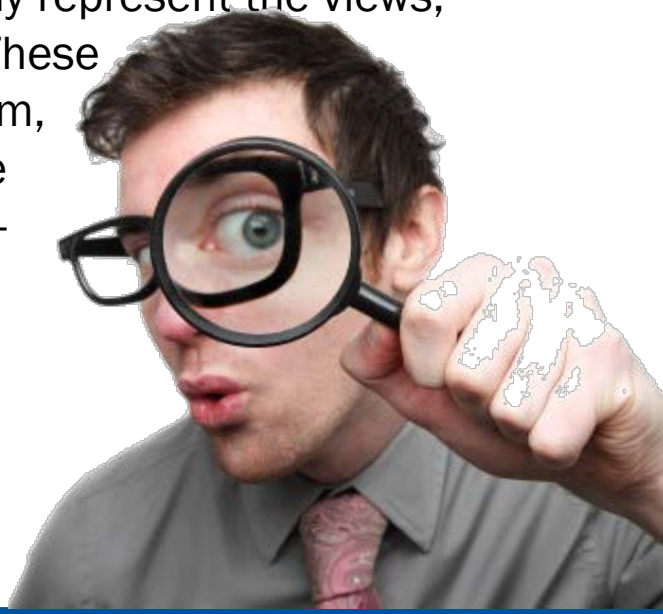
jyard@schneiderdowns.com
Work Phone: (412) 697-5345
Cell Phone: (724) 822-3915

SCHNEIDER DOWNS

Disclaimer

IRS CIRCULAR 230 DISCLOSURE: Any tax advice contained in this communication (or in any attachment) is not included or written to be used, and cannot be used, for the purpose of (i) avoiding penalties under the Internal Revenue Code, or (ii) for promoting, marketing or recommending to another party any transaction or other matter addressed in this communication (or in any attachment).

The views expressed by the presenter do not necessarily represent the views, positions, or opinions of Schneider Downs & Co., Inc. These materials, and the oral presentation accompanying them, are for educational purposes only and do not constitute accounting, tax or legal advice or create an accountant-client or attorney-client relationship.

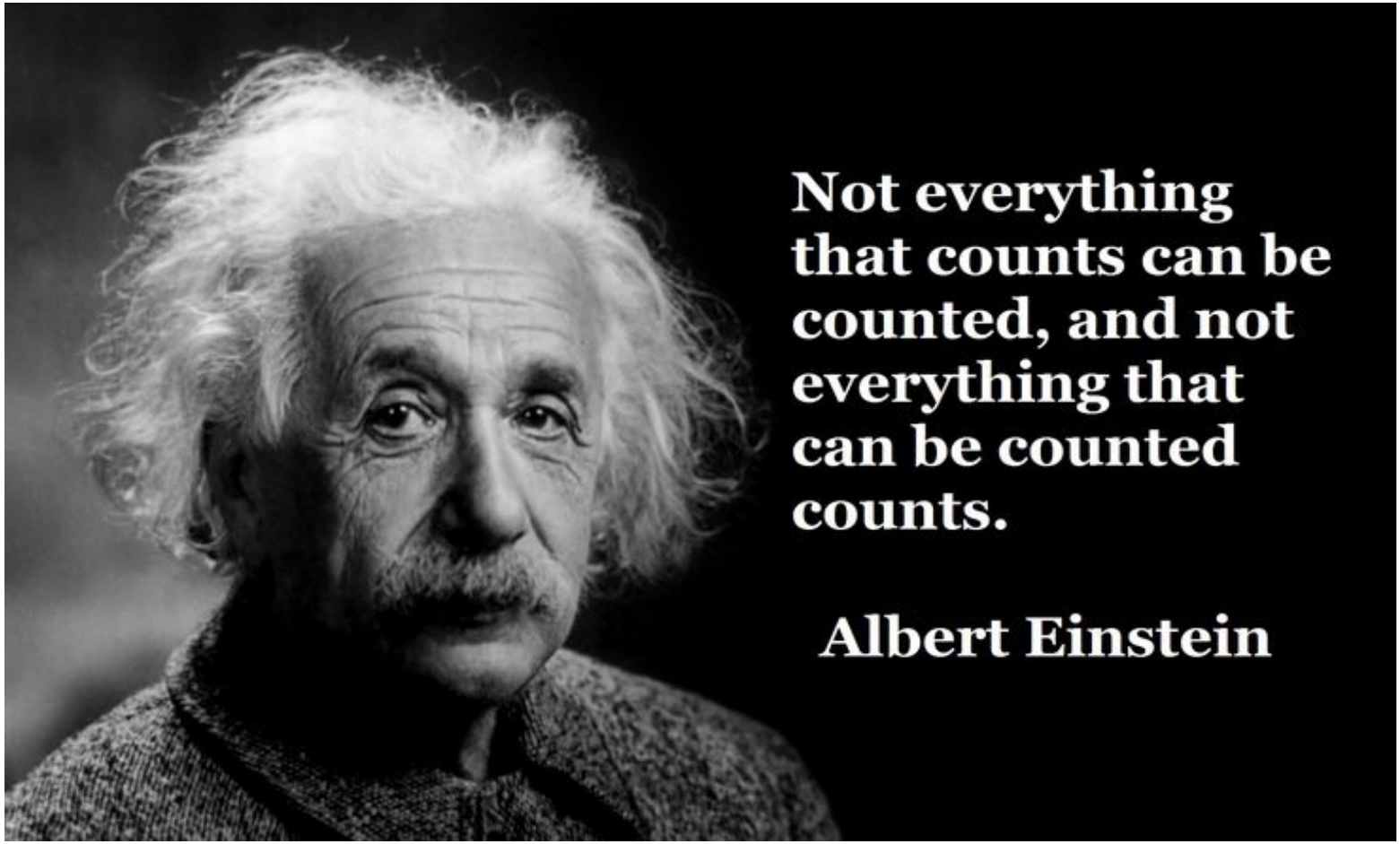


SCHNEIDER DOWNS

ERM– Advancing the Cause

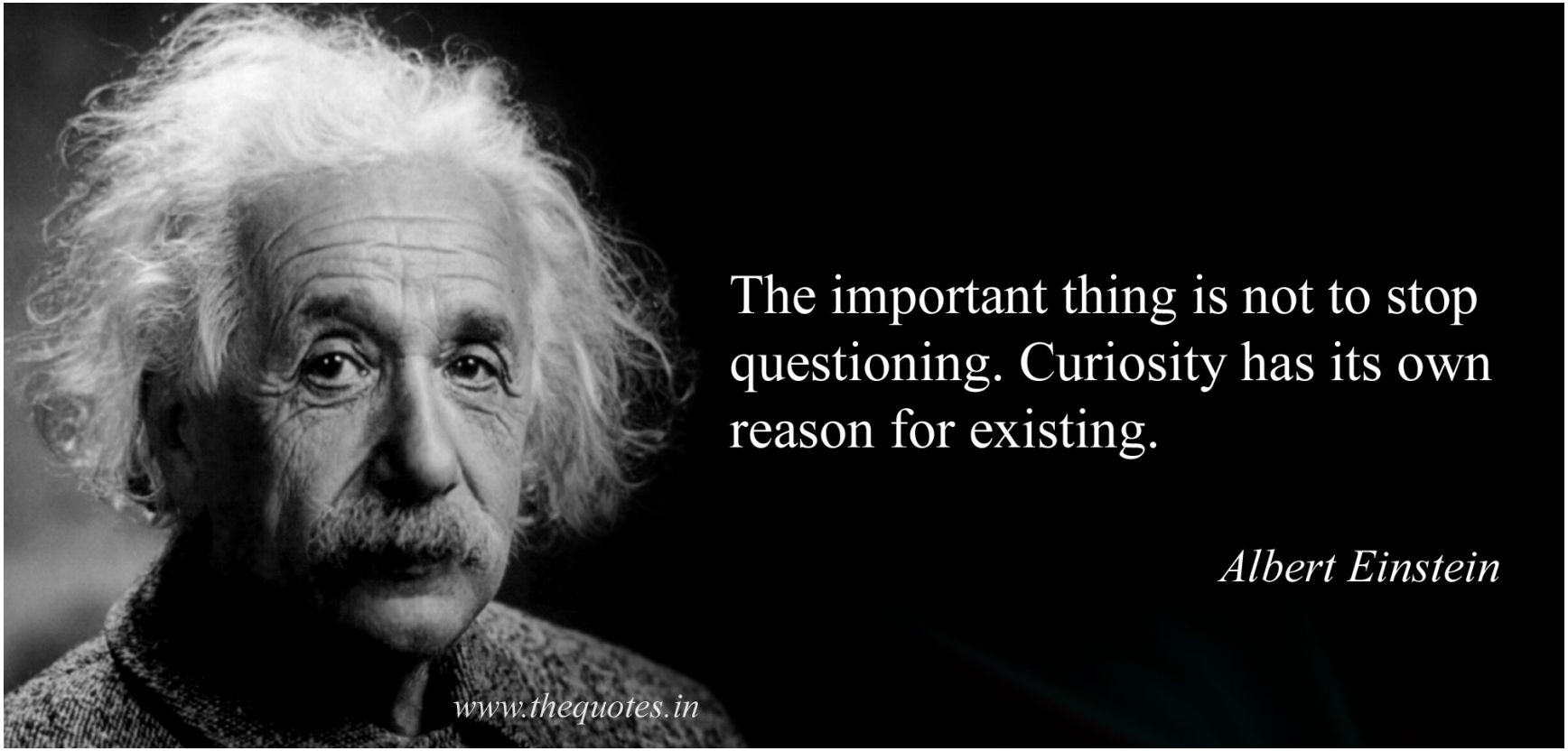
SCHNEIDER DOWNS

Quotes That Apply to ERM



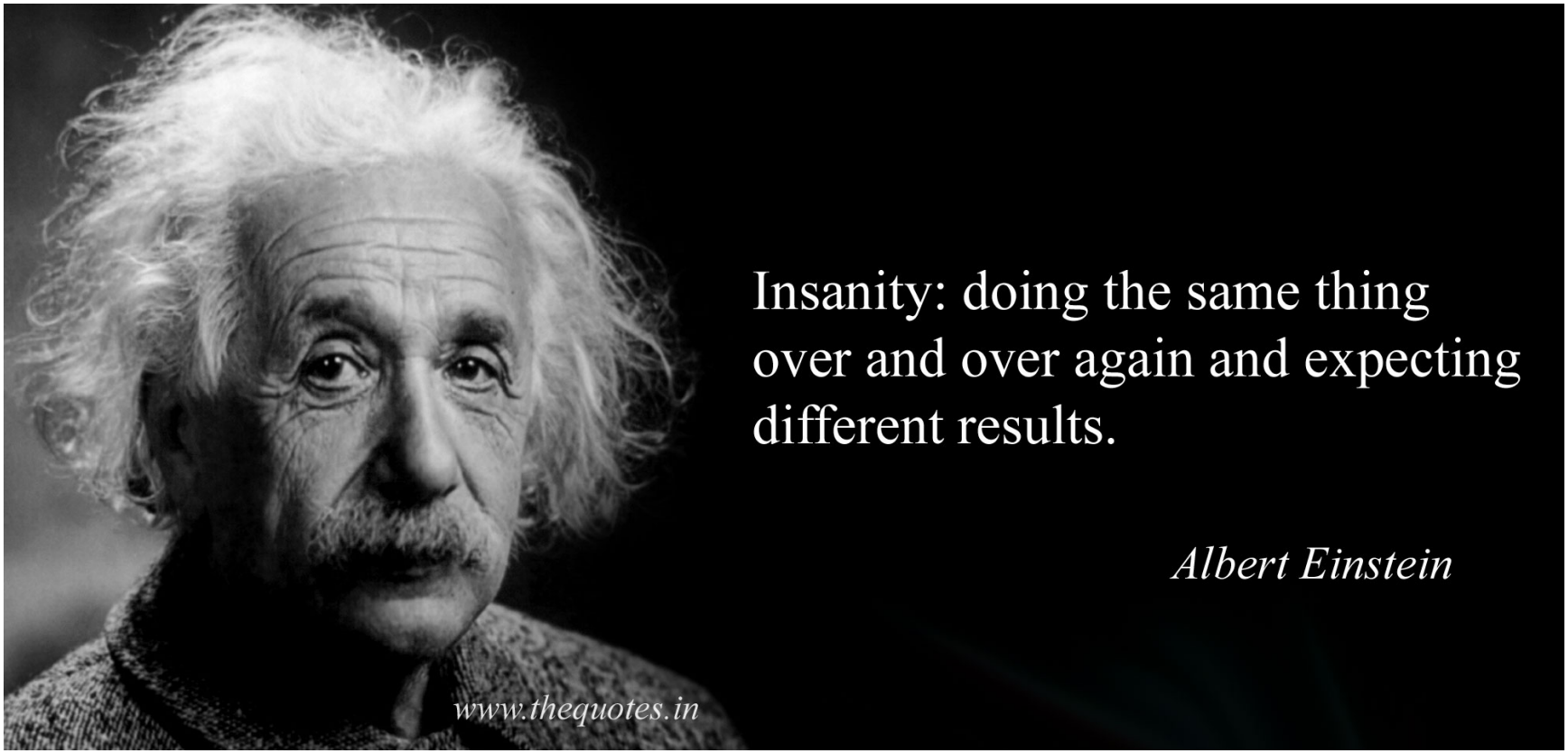
SCHNEIDER DOWNS

Quotes That Apply to ERM



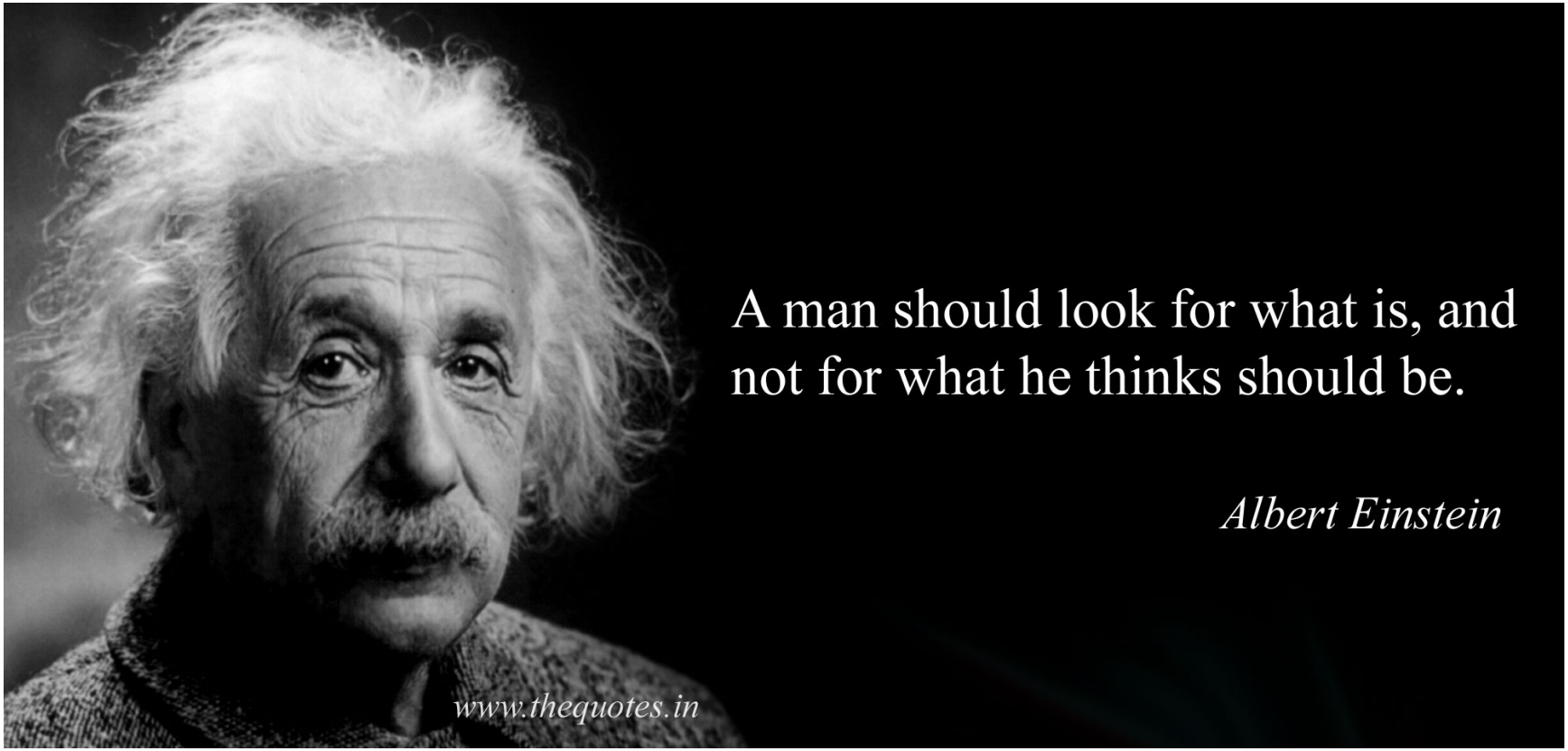
SCHNEIDER DOWNS

Quotes That Apply to ERM



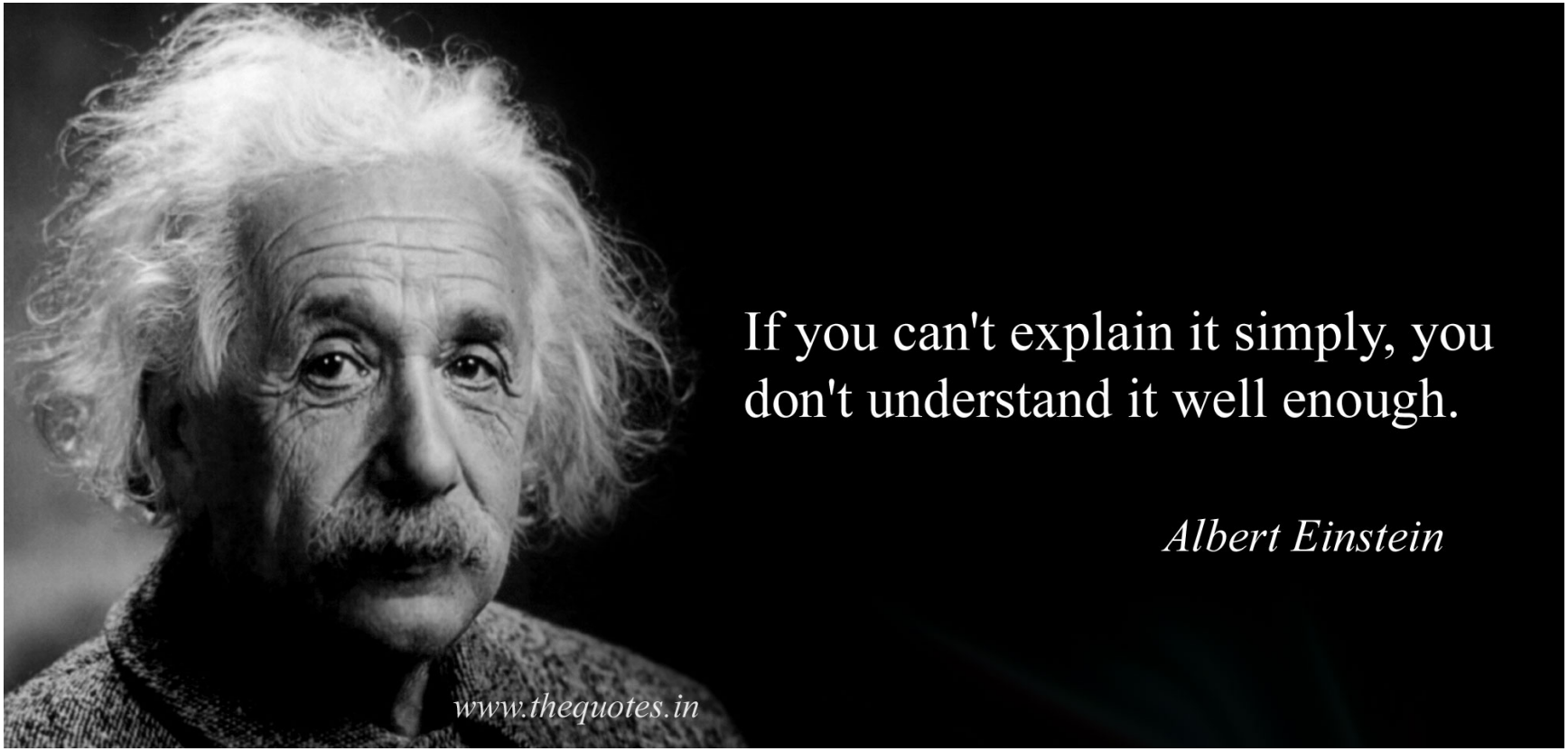
SCHNEIDER DOWNS

Quotes That Apply to ERM



SCHNEIDER DOWNS

Quotes That Apply to ERM



SCHNEIDER DOWNS

Key Drivers of ERM

- Protection of Life and Limb
- Protection of Capital
- Maximization of Earnings
- Achievement of Strategic Objectives and Goals
- Stakeholders Expectations
- Compliance with Laws and Regulations

SCHNEIDER DOWNS

Key Laws and Enforcement Agencies

- Dodd-Frank Act
- Foreign Corrupt Practices Act
- Sarbanes-Oxley Act
- U.S. Federal Sentencing Guidelines
- Whistleblowers Protection Act
- Occupational Safety and Health Act
- Equal Employment Opportunity Act
- Aviation and Transportation Security Act
- Environmental Protection Act

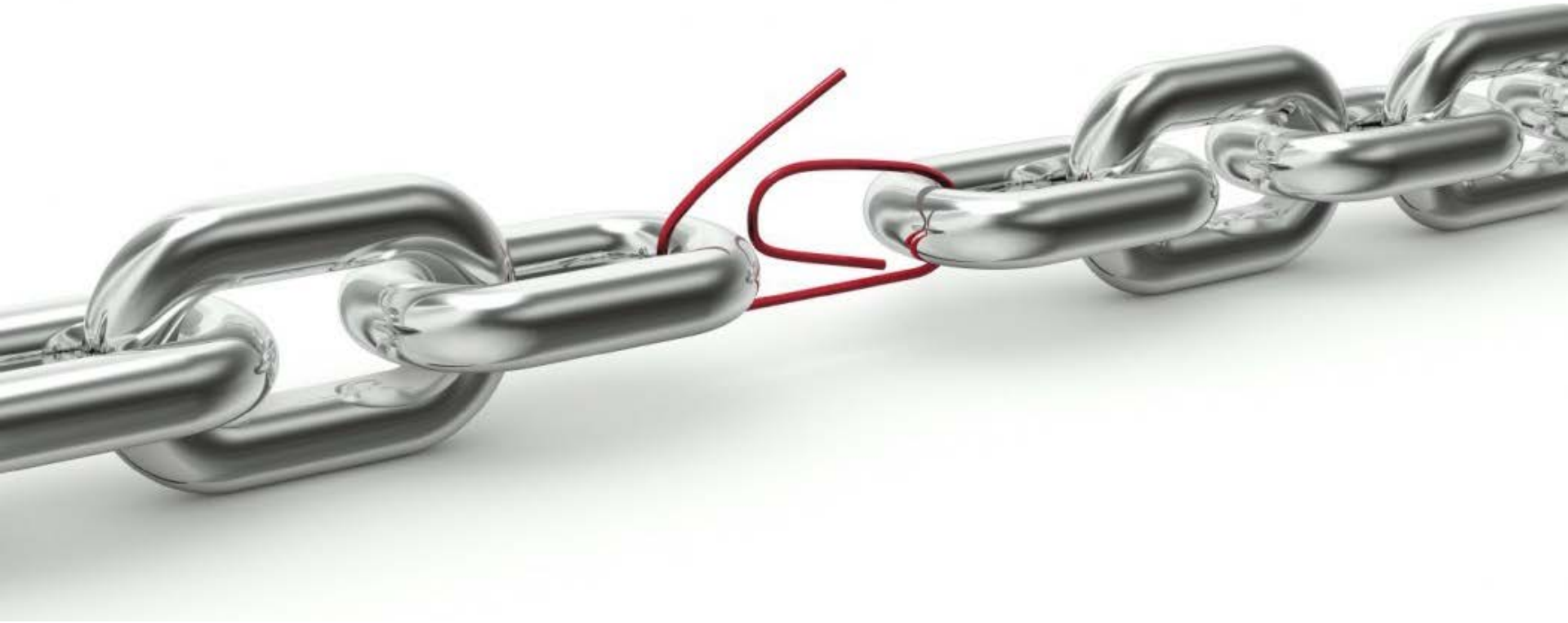
SCHNEIDER DOWNS

Key Laws and Enforcement Agencies

- SEC and PCAOB
- Department of Justice
- Department of Labor
- Immigration and Customs
- Occupational Safety and Health Administration
- IRS
- FED/FDIC/OCC/NCUA/CFPB
- Environmental Protection Agency
- National Labor Relations Board
- Department of Homeland Security

SCHNEIDER DOWNS

Where Is Your Organization's Weak Link In Managing Risk?



SCHNEIDER DOWNS

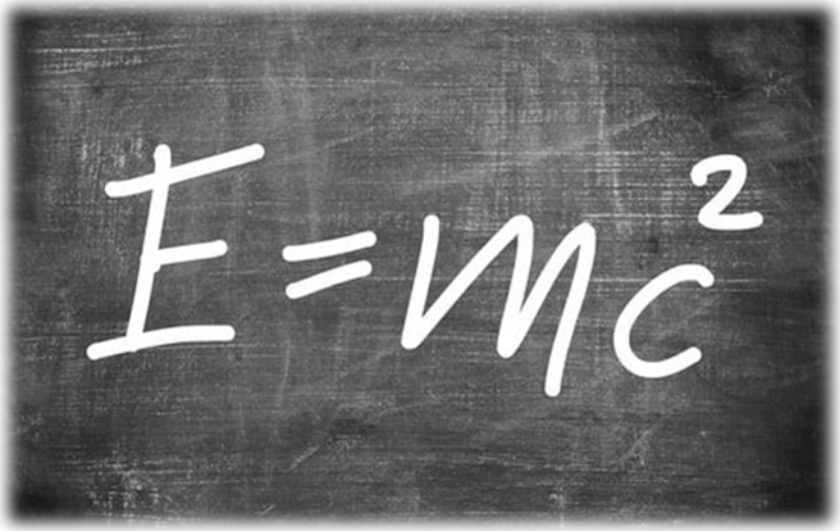
Theory of Risk Relativity

SCHNEIDER DOWNS

Theory of Risk Relativity

Einstein's Theory of Relativity

Objects, moving at the speed of light, are measured differently given the proximity to the object of the one doing the measuring. This means measurement and proximity, themselves, both function to alter what is being measured.



Theory of Risk Relativity

Theory of Risk Relativity

Risk will be measured differently within the same organization given the proximity to the risk of those doing the measuring.

SCHNEIDER DOWNS

Capturing and Measuring Risk

SCHNEIDER DOWNS

Capturing and Measuring Risk

- The concept of risk
  - is not easily quantified.
  - is not expressible in a neat, numerical package that all can understand.
  - can be highly subjective, having both qualitative and quantitative elements.

SCHNEIDER DOWNS

Capturing and Measuring Risk

- Arriving at a universal "risk formula" to apply to events, occurrences and/or opportunities is very challenging.
  - TRUTH: Every organization, within and outside of a given industry, has its unique applications of risk management policies and practices.

SCHNEIDER DOWNS

Leading Practices of ERM

- Establish a risk management policy for your organization
- Communicate your risk management policy
- Fully engaged board of directors
- Integration of risk management into the business functions
- Risk ownership and accountability for risk management
- Transparency

SCHNEIDER DOWNS

Leading Practices of ERM

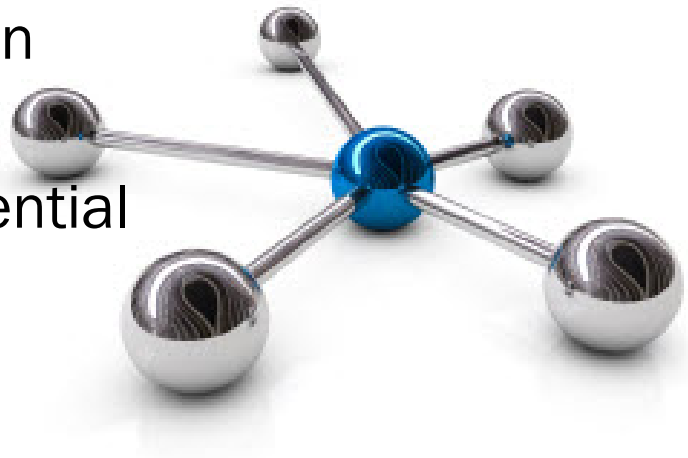
- Integration of risk with strategic planning
- Intelligence gathering (benchmarking, trend analysis)
- Continuous monitoring (data analytics)
- Scenario analysis (stress testing, disaster recovery)
- Consistent and continuous communication
- Allocate time and resources

SCHNEIDER DOWNS

Key Drivers of ERM

Risk Measurement

- Inherent and residual risk measurements (establish measurements at the company level)
  - Risk Acceptance (risks in the normal course of business)
  - Risk Appetite (determined based on strategy/long-term business plan)
  - Risk Tolerance (point at which potential impairment occurs, entering crisis mode)



SCHNEIDER DOWNS

ERM – Identifying the Risks

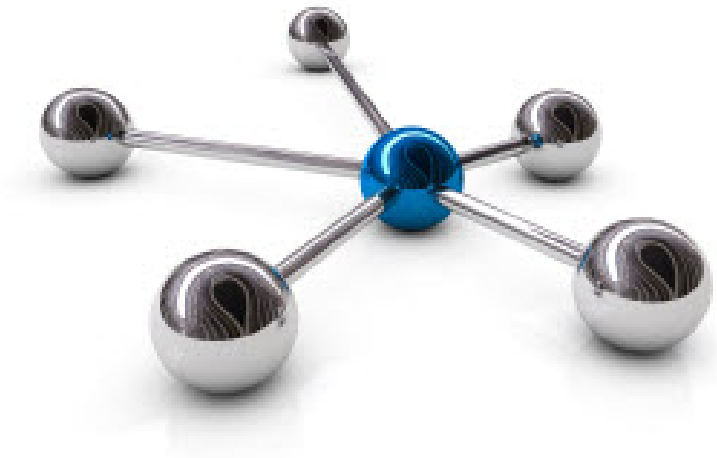
Ladies and gentlemen, this is your captain speaking. There is a minor malfunction in the pressurization system, but no problem, an oxygen mask will come out of the unit above your seat automatically

SCHNEIDER DOWNS

Key Drivers of ERM

Risk Attitude

- Knowledge of risk
- Commitment (lack of) to manage
- Culture of organization



SCHNEIDER DOWNS

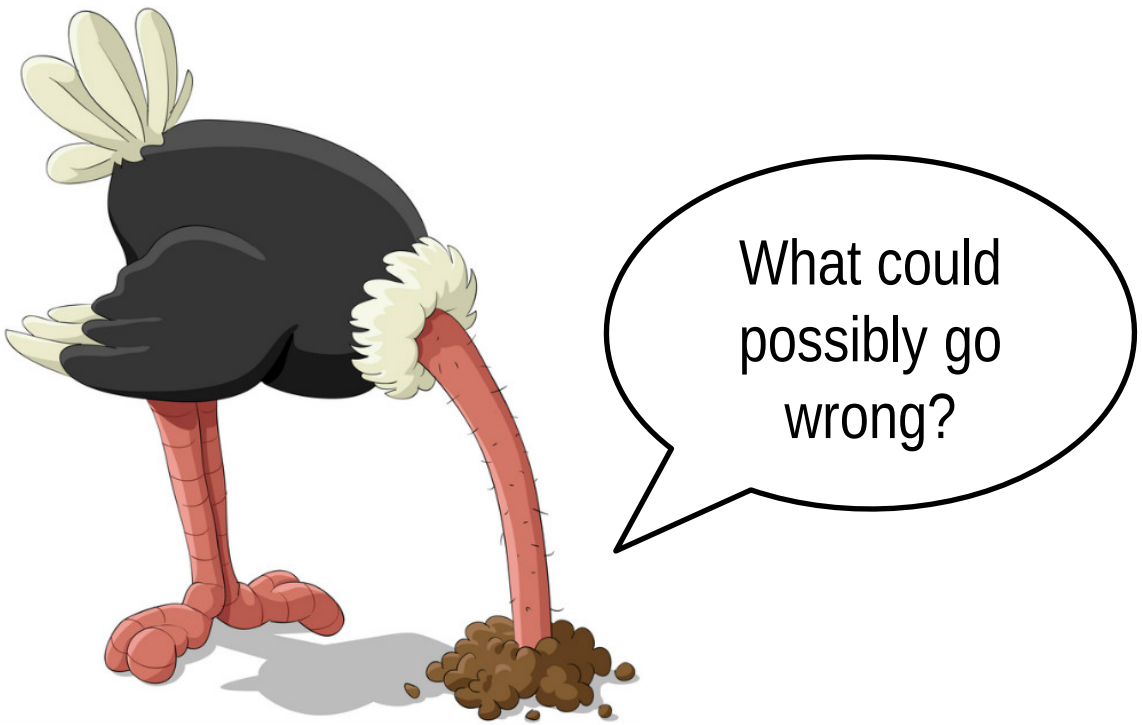
Evolution of Risk Management

Traditional risk management is characterized by fragmented responsibility rather than a holistic approach encompassing the entire enterprise; a focus on discrete events; a perception of risk management being a product of transaction (insurance) or a reaction to events.

The move to today's ERM is strategic and focused. Today's ERM model allows organizations to integrate business managers with risk managers, increase non-financial risk awareness, and increase involvement from all areas of the organization – executive management, board members, and business.

SCHNEIDER DOWNS

ERM – Advancing the Cause



When it comes to ERM, being proactive is the only course of action.

SCHNEIDER DOWNS

ERM Pitfalls

- Pitfalls
  - Not linking strategic planning and risk management
  - Not positioning ERM as a management practice
  - Procedural approach (restrictive/limiting)
  - Many failures explained by challenges of responding to a “Black Swan” event
  - Diminishing transparency
  - Lack of support at the executive level

SCHNEIDER DOWNS

ERM Pitfalls *(cont.)*

- Pitfalls
  - Competing priorities of ERM staff
  - Placing risk management oversight with the audit committee
  - Not looking beyond impact and likelihood
  - Lack of understanding on the "Big Bets" being taken
  - Failure to assess industry and peer dynamics

SCHNEIDER DOWNS

ERM Principles

- ERM should:
  - Be linked and embedded in your strategy
  - Create and protect value
  - Be part of all processes
  - Be part of your decision making
  - Be used to handle uncertainty
  - Be systematic and timely

ERM Principles *(cont.)*

- ERM should:
  - Be based on the best data
  - Be tailored to your environment
  - Consider human factors
  - Be transparent and inclusive
  - Be responsive and iterative
  - Support continual improvement

SCHNEIDER DOWNS

ERM – Advancing the Cause

Traditional vs. Leading Edge Risk Types

Financial
Operational
Compliance

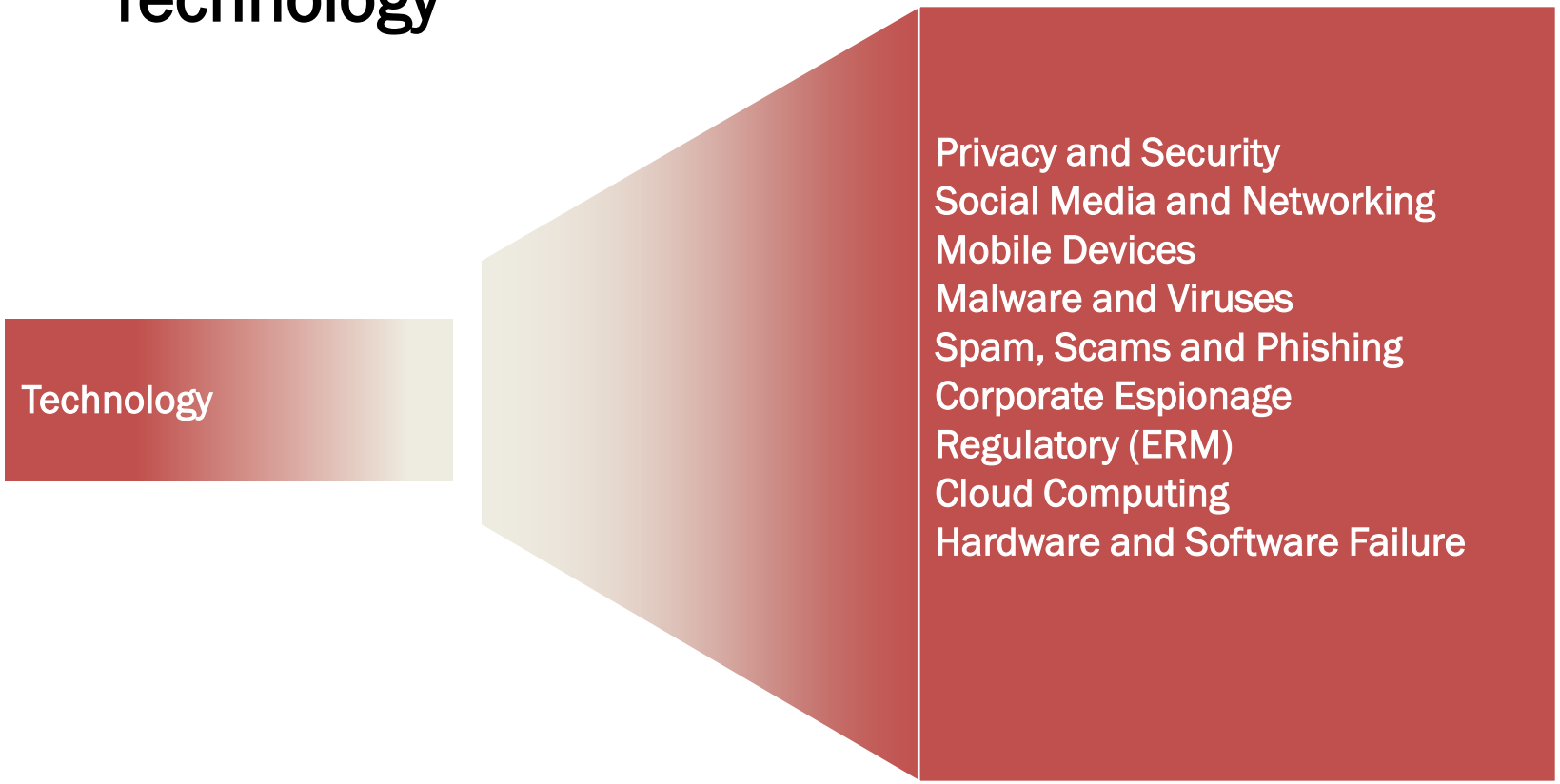
Strategy
Culture/Conduct
Human Capital
Operational/Transaction
Vendor/Sub-contractor
Interdependencies on other units
Financial Capture and Reporting
Technology
Advancing the Cause
Environmental
Market/Price
Legal/Regulatory
External - Competitors/ Economy/Innovations
Liquidity
Reputation
Fraud
Waste and Mismanagement
Safety and Security
Other

Traditionally, risk was viewed more from a financial risk perspective. The new standard is to look at risk throughout the enterprise.

SCHNEIDER DOWNS

ERM – Technology

Traditional vs. Leading Edge Technology



SCHNEIDER DOWNS

ERM – Embracing Analytics

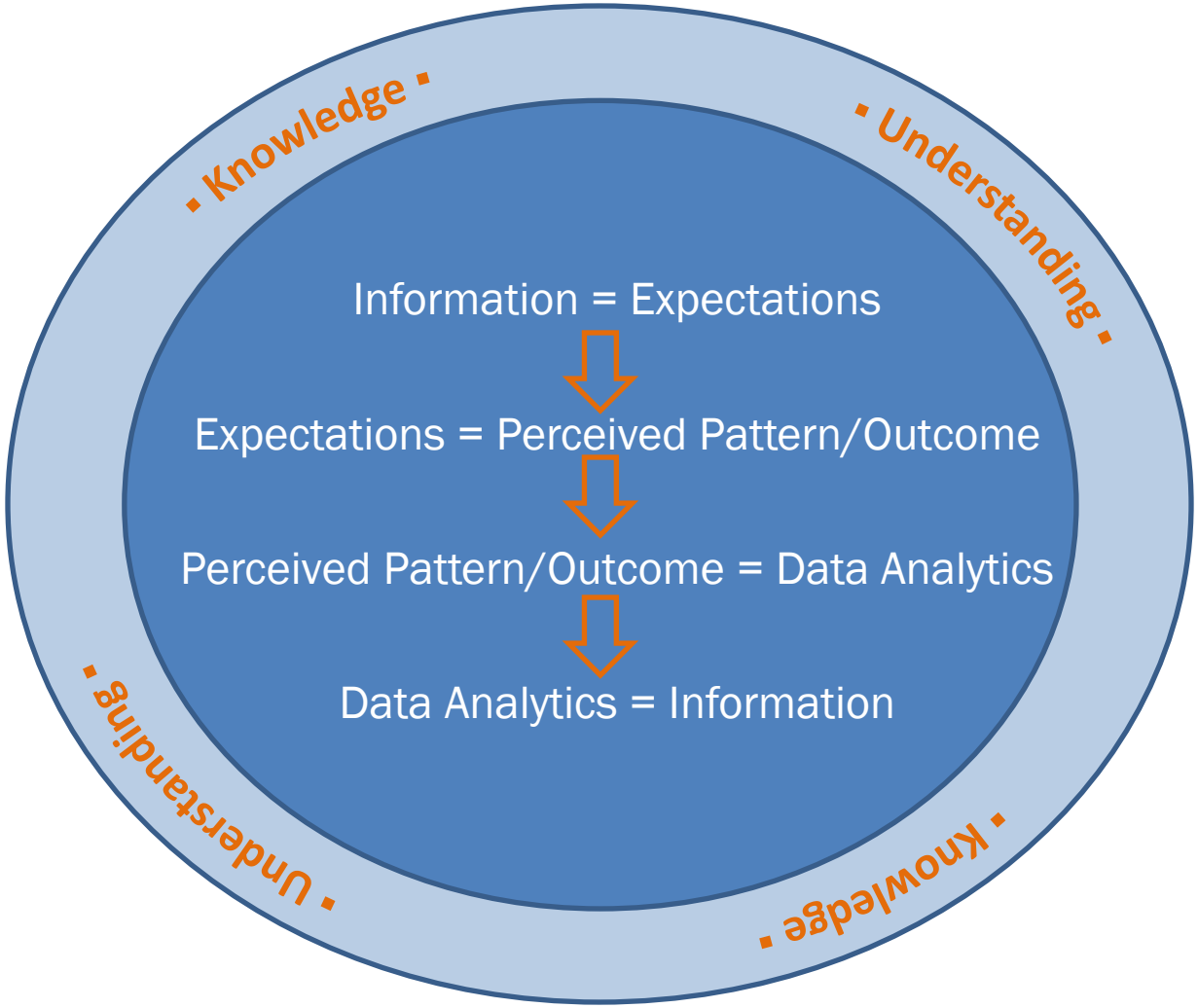
DATA and the Digital World:

- Continuous monitoring of key risk indicators
- Quantifiable risk measurements
- Ability to assess entire populations
- Create risk dashboards

Challenges:

- Technology and talent
- Quality of data and its availability
- Access to comparable external data sources

DATA Analytics



SCHNEIDER DOWNS

Rating Risks

Traditional Risk Rating:

- Probability
- Severity

Expansive Risk Rating:

- Probability/likelihood/Vulnerability – risk threat level absence controls
- Impact/Severity/Loss Magnitude – measurements include financial, threat to human life, environmental, etc.
  - Also consider future repercussions/secondary effects (prime effects and the secondary effects … quake/aftershocks/longer term ramifications)

SCHNEIDER DOWNS

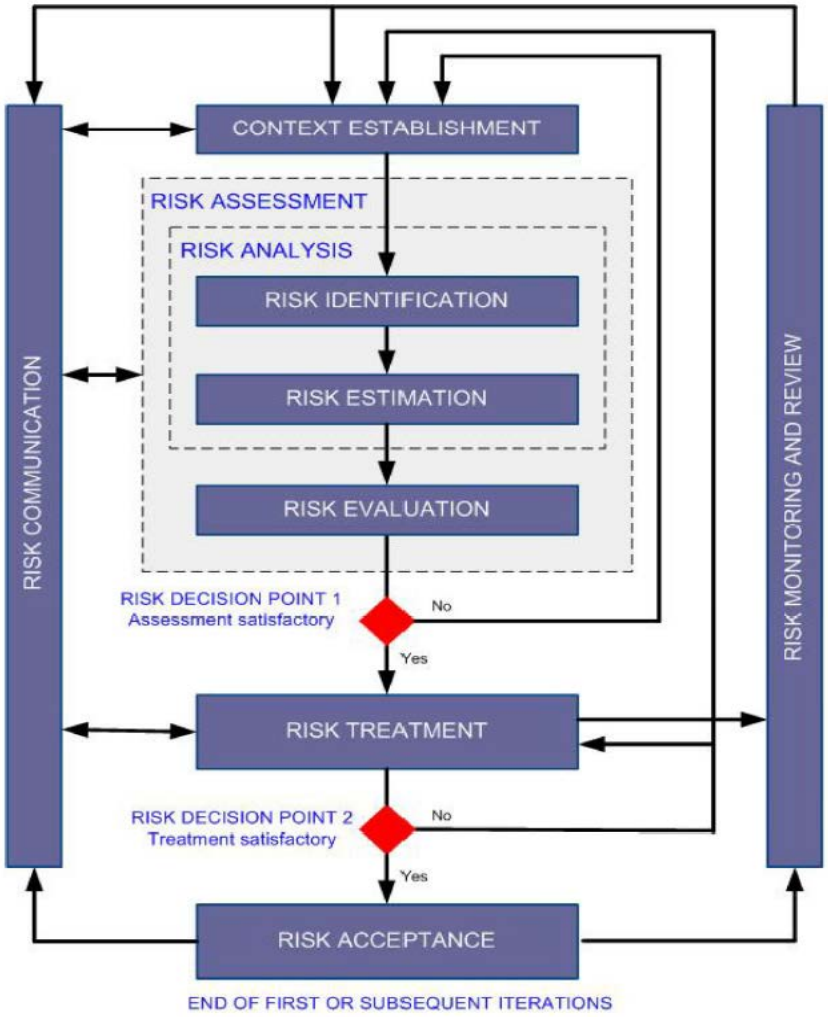
Rating Risks *(cont.)*

Expansive Risk Rating *(cont.)*:

- Velocity/speed – speed at which the risk occurs, and will management have sufficient opportunity to react to its onset
- Frequency/Persistence – one-time event or recurring and at what rate
- Direction of risk/threat

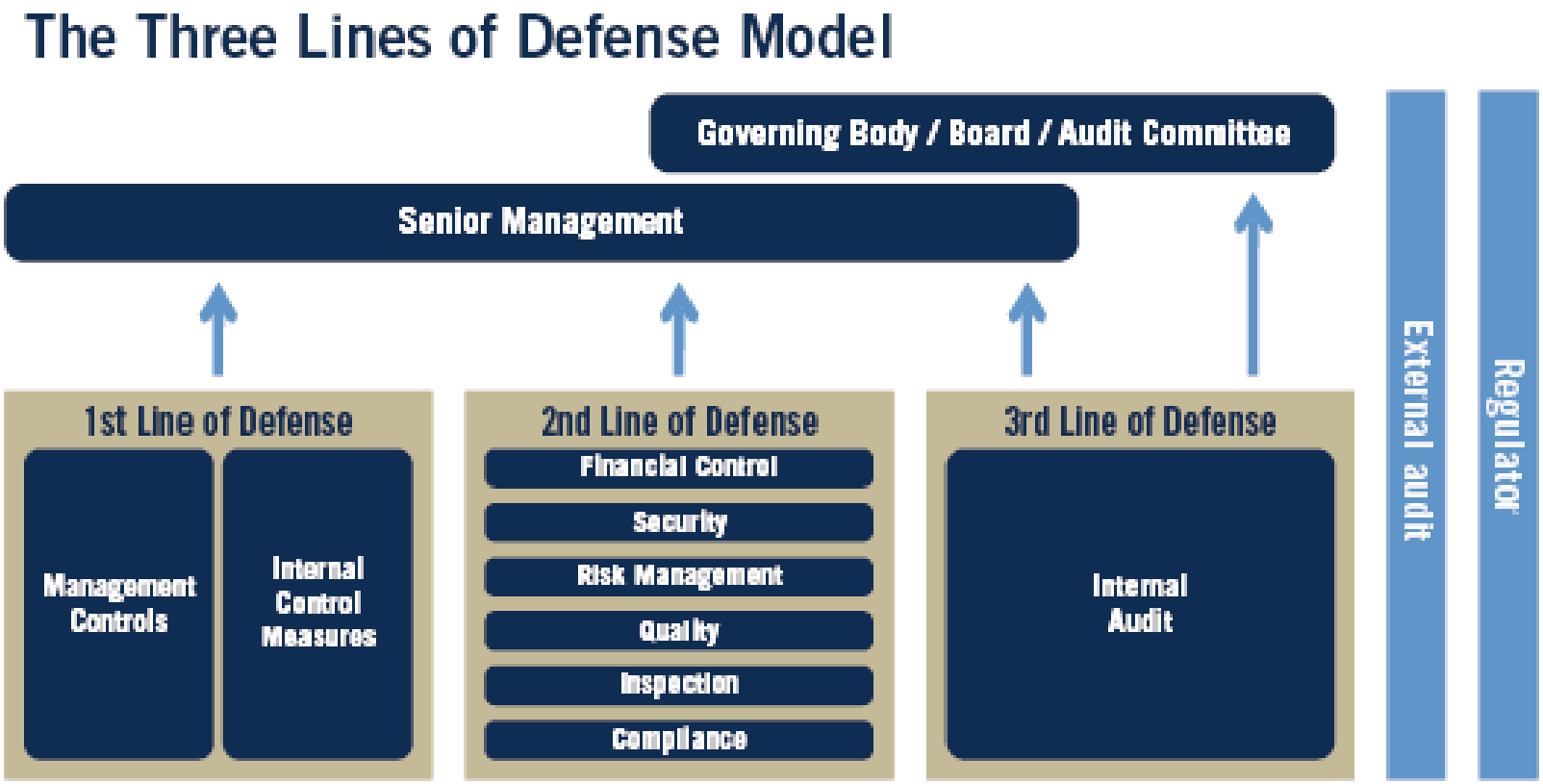
SCHNEIDER DOWNS

ERM Conceptually



SCHNEIDER DOWNS

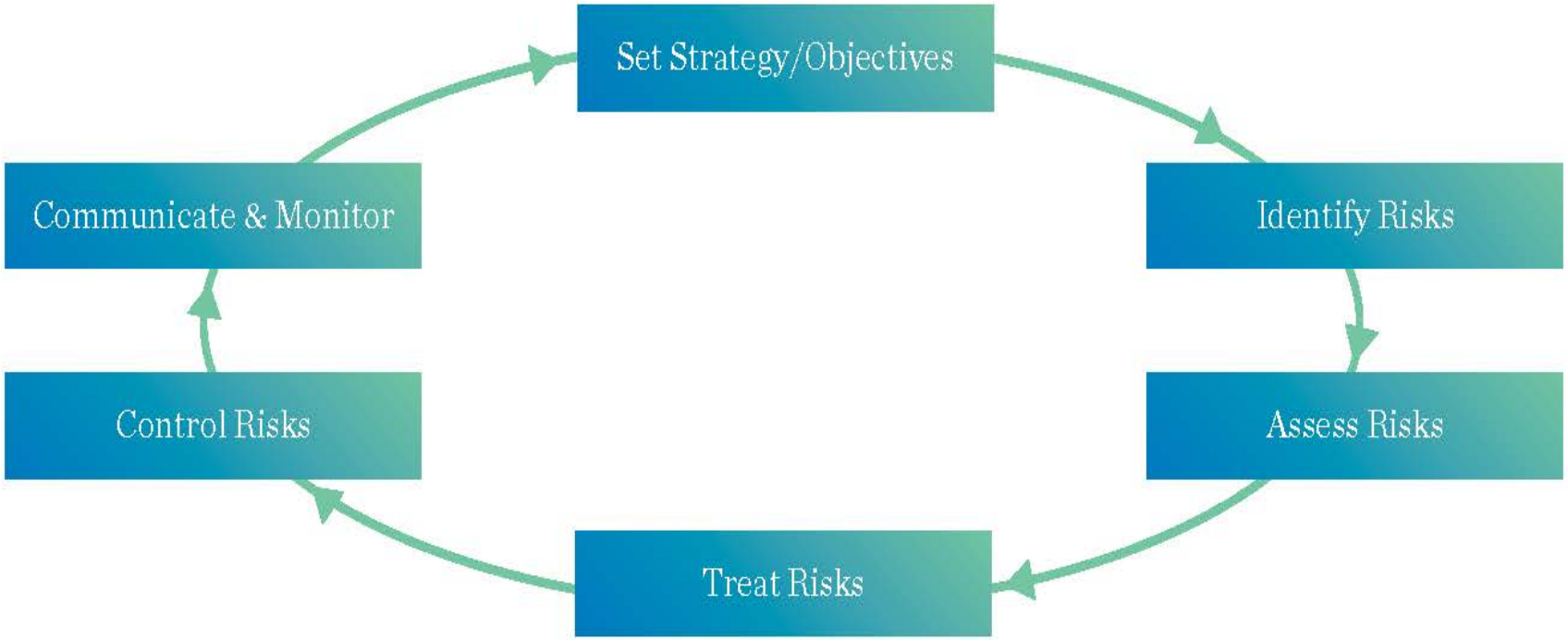
Three Lines of Defense



Adapted from ECIIA/FERMA *Guidance on the 8th EU Company Law Directive, article 41*

SCHNEIDER DOWNS

ERM is a Continuous Process



Source: Adapted from The Institute of Chartered Accountants in England & Wales, *No Surprises: The Case for Better Risk Reporting*, ICAEW, London, U.K., 1999, p. 47.

SCHNEIDER DOWNS

Risk Qualitative and Quantitative Techniques

QUALITATIVE:

Risk identification

Risk rankings

Risk maps

Risk maps with impact and likelihood

Risks mapped to objectives or divisions

Identification of risk correlations

QUALITATIVE/ QUANTITATIVE:

Validation of risk impact

Validation of risk likelihood

Validation of correlations

Risk corrected revenues

Gain/loss

Tornado charts

Scenario analysis

Benchmarking

Net present value

Traditional measures

QUANTITATIVE:

Probabilistic techniques:

Cashflow at risk

Earnings at risk

Earnings distributions

EPS distributions

LEVEL OF DIFFICULTY AND AMOUNT OF DATA REQUIRED

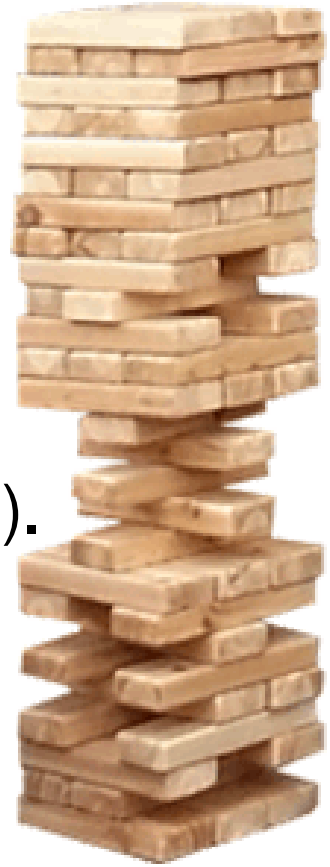
SCHNEIDER DOWNS

Cost Benefit of Risk Management

SCHNEIDER DOWNS

Takeaways…

- There is not a uniform definition of risk.
- We view risk differently (proximity).
- Attempting to quantify (dollar amount to future contingency) risk is an ever changing dynamic as risk is a subjective (attitudes define it) phenomenon (risk is not stable) that is always changing (impact).



SCHNEIDER DOWNS

Takeaways…

- Risk itself is constantly changing and at the same time, so are attitudes about risk.
- Objective and subjective measurements of risk are continually interacting, leaving measurement of risk challenging.

SCHNEIDER DOWNS

Thank you!

As one of the largest certified public accounting and business advisory firms in the region, Schneider Downs serves clients throughout the country and around the world. By integrating high-quality resources, systems and personnel, Schneider Downs has built a reputation of delivering individualized services built on insight, innovation, and experience to meet each client's specific needs.

For more information, visit us at www.schneiderdowns.com

Big Thinking. Personal Focus.

Schneider Downs