



[jwmc-llc.com](http://jwmc-llc.com)

# Risk Hurricanes and How to Avoid Them

Joseph W. Mayo  
J. W. Mayo Consulting, LLC



*[joseph.mayo@jwmc-llc.com](mailto:joseph.mayo@jwmc-llc.com)*

# Agenda

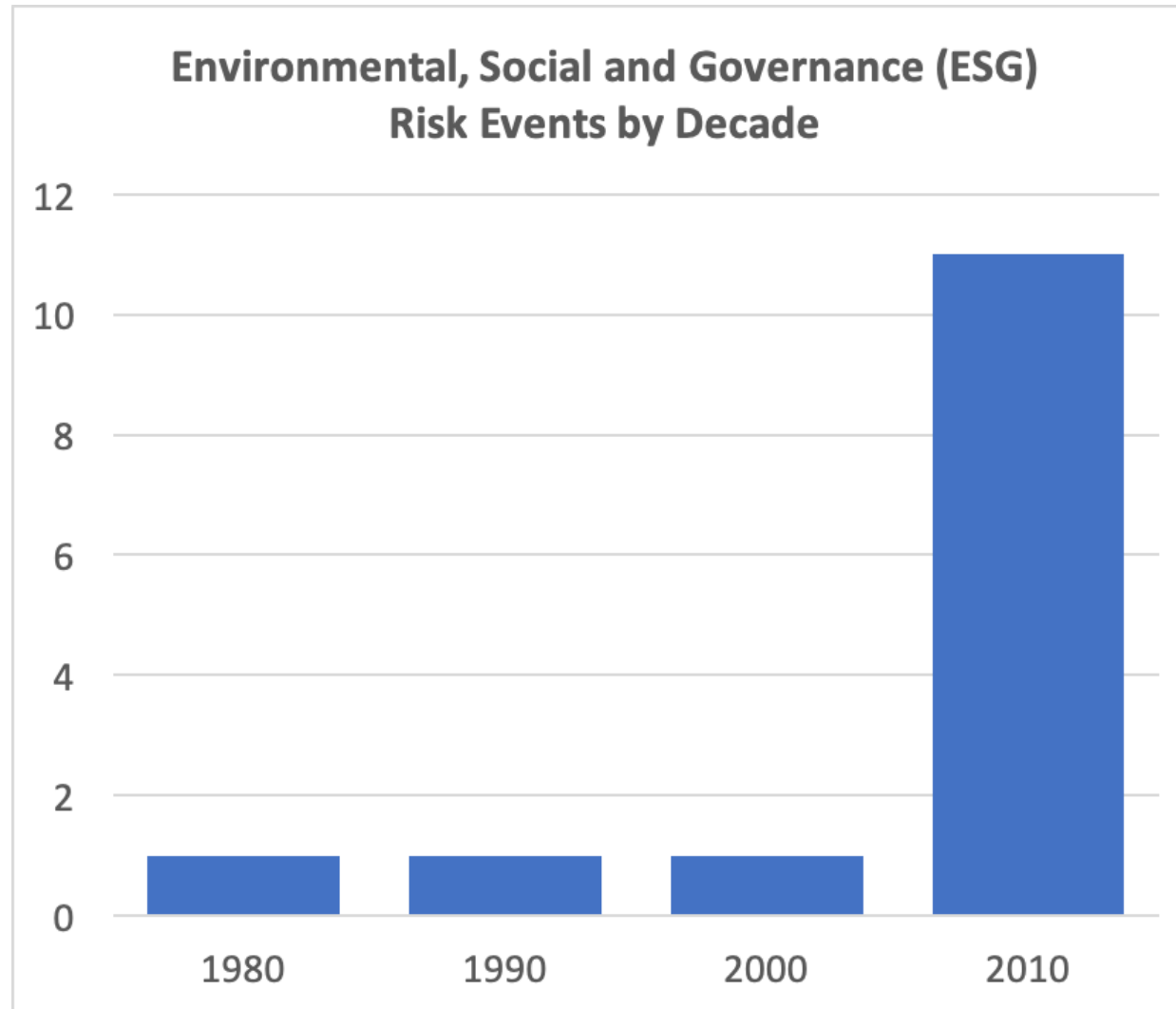


- Risk Environment Today
- What do we do about it?
- How do we get there?



*[joseph.mayo@jwmc-llc.com](mailto:joseph.mayo@jwmc-llc.com)*

# Risk Environment Today



*[joseph.mayo@jwmc-llc.com](mailto:joseph.mayo@jwmc-llc.com)*

# Risk Environment Today



- Philbeck and Davis have synthesized the essence of 4IR quite well
  - 4IR is a series of significant shifts in the way that economic, political and social value is being created, exchanged and distributed<sup>1</sup>
- 4IR poses risk management challenges that require us to think differently about risk management
- Decreased knowability and increased complexity



[joseph.mayo@jwmc-llc.com](mailto:joseph.mayo@jwmc-llc.com)

<sup>1</sup> Thomas Philbeck and Nicholas Davis, "The Fourth Industrial Revolution: New Era", *Journal of International Affairs*, (January 2019), under "Framing the Idea of the Fourth Industrial Revolution"

# Risk Hurricane

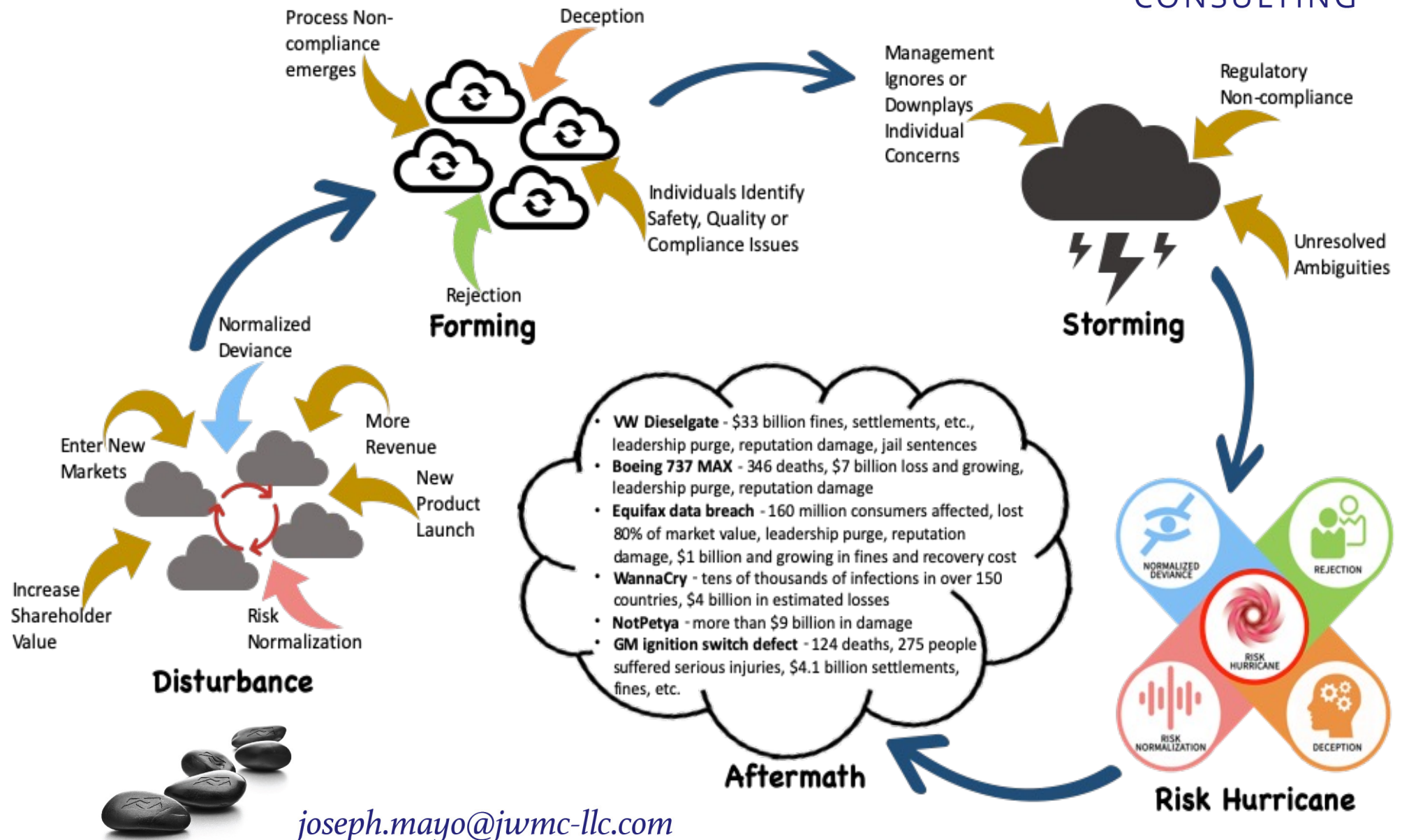
Stages of a Hurricane	Calm Before the Storm	Tropical Disturbance	Tropical Depression	Tropical Storm	Hurricane	Aftermath	Recovery
Carr's Anatomy of a Disaster	Equilibrium	Incubation Period		Precipitating Event	Onset of the Event	Rescue and Salvage	Renewed Equilibrium
Risk Hurricane	Calm	Disturbance	Forming	Storming	Risk Hurricane	Aftermath	Recovery



*[joseph.mayo@jwmc-llc.com](mailto:joseph.mayo@jwmc-llc.com)*



J. W.  
Mayo  
CONSULTING



# Disaster Sequence Pattern

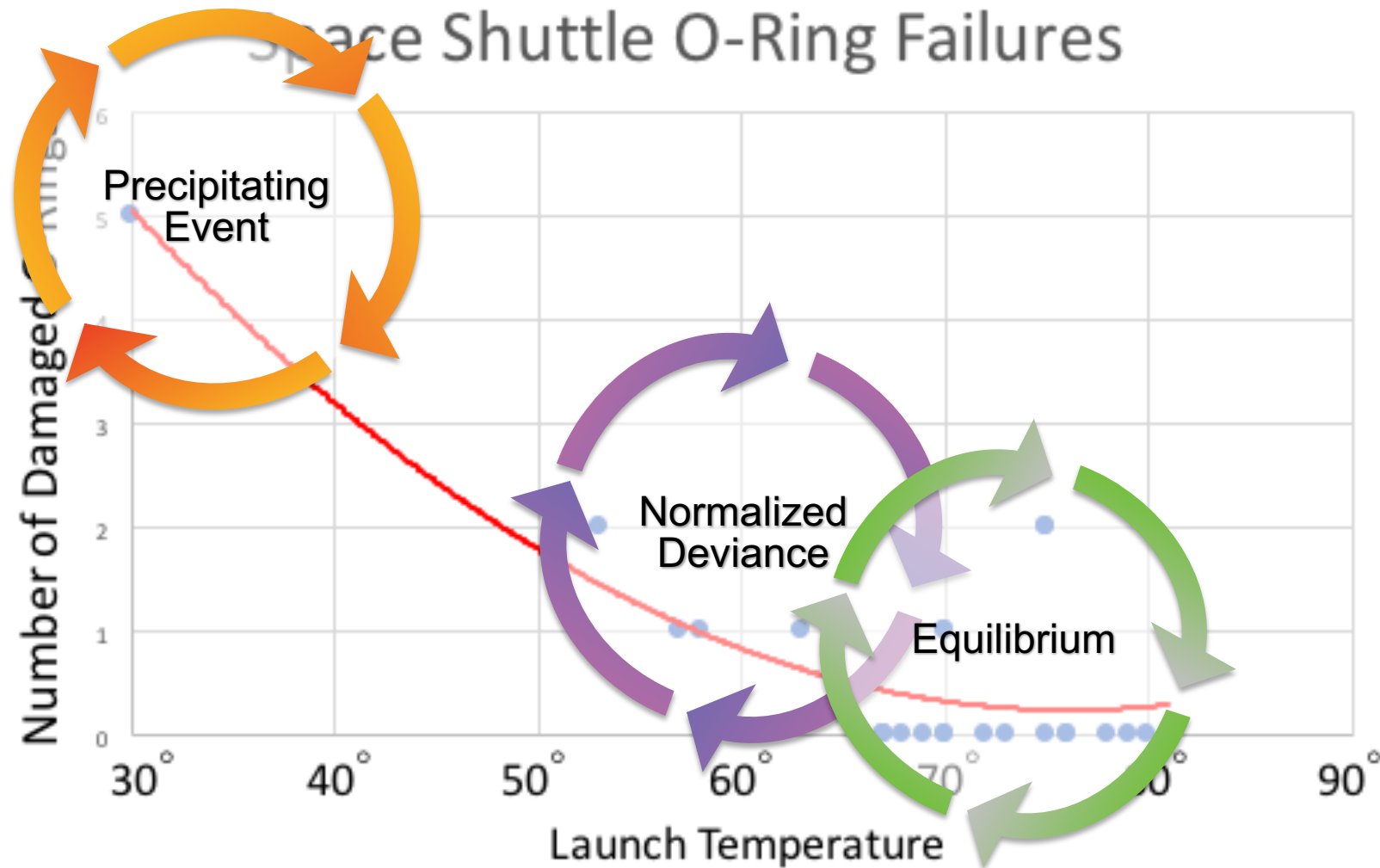


1. Equilibrium
2. Precipitating event
3. Adjustment periods
4. Re-established equilibrium



[joseph.mayo@jwmc-llc.com](mailto:joseph.mayo@jwmc-llc.com)

# Recipe for Disaster



*Live Content Slide*

*When playing as a slideshow, this slide will display live content*

**Poll: Has your organization experienced a precipitating event?**



*[joseph.mayo@jwmc-llc.com](mailto:joseph.mayo@jwmc-llc.com)*

# Disaster Warning Signs

## Cultural patterns that precede disasters<sup>2</sup>

- Rigidities in perception
- Decoy problems
- Disregard for nonmembers
- Information difficulties
- Involvement of strangers
- Regulatory non-compliance
- Minimizing emergent danger



[joseph.mayo@jwmc-llc.com](mailto:joseph.mayo@jwmc-llc.com)

<sup>2</sup>Turner, B. A. (1976). The Organizational and Interorganizational Development of Disasters. *Administrative Science Quarterly*, 21(3), 378-397.

*Live Content Slide*

*When playing as a slideshow, this slide will display live content*

**Poll: Does your organization have a risk hurricane brewing?**



*[joseph.mayo@jwmc-llc.com](mailto:joseph.mayo@jwmc-llc.com)*

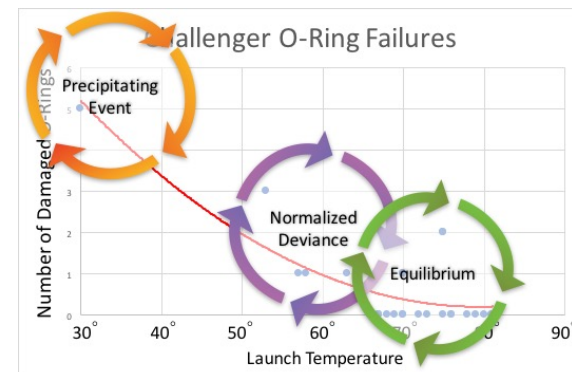
# Normalized Deviance and Rejection

## Space Shuttle Columbia Disaster

- 1981: Initial launched
- 1988: Foam debris acknowledged as flight safety risk
- 1992: Launch allowed with outstanding debris anomalies
- 2002: "Major debris event"
- 2003: Columbia breaks up during reentry



[joseph.mayo@jwmc-llc.com](mailto:joseph.mayo@jwmc-llc.com)



# Reestablishing Equilibrium



Reestablishing equilibrium is challenging

30 years after the Challenger disaster NASA has not yet exited the re-adjustment period

Hewlett Packard

- Equilibrium lasted more than 40 years
- Precipitating event occurred in 1999
- Today, 18 years later, HP still hasn't reestablished equilibrium



*[joseph.mayo@jwmc-llc.com](mailto:joseph.mayo@jwmc-llc.com)*

*Live Content Slide*

*When playing as a slideshow, this slide will display live content*

**Poll: Can your organizational culture quickly  
reestablish equilibrium after a precipitating event?**



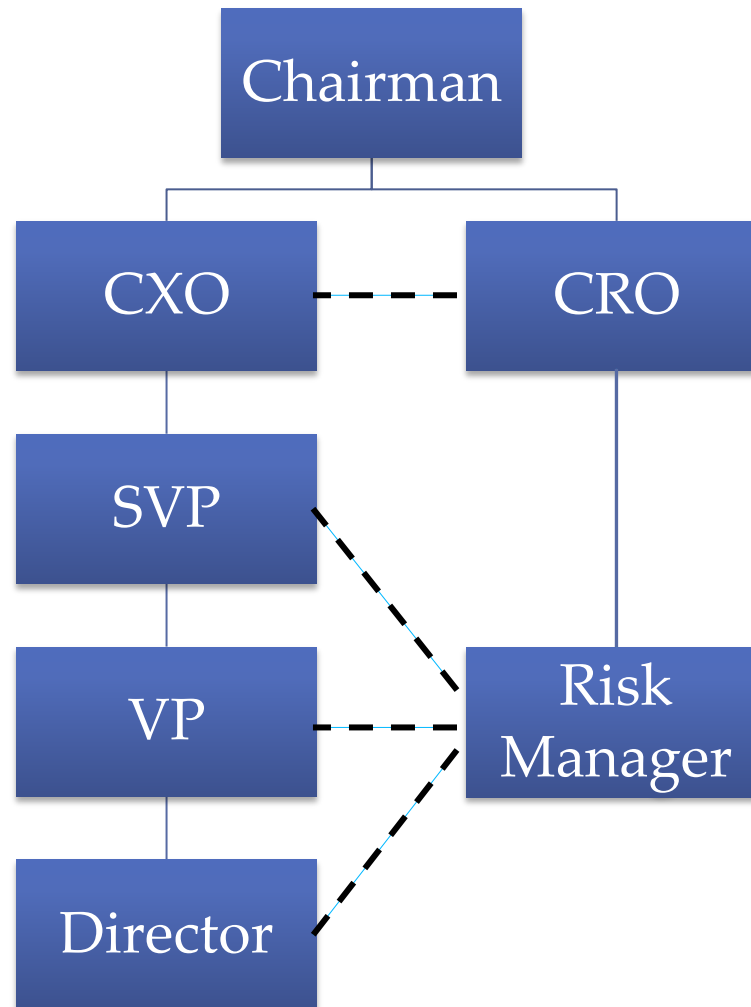
*[joseph.mayo@jwmc-llc.com](mailto:joseph.mayo@jwmc-llc.com)*

# What do we do about it?

- Rapid decision making
  - Jeff Bezos has said, “most decisions should probably be made with 70% of the information you wish you had”
  - In 4IR you need to make decisions 30% of the information you would like
- Re-imagine detective controls
- Focus on resiliency



# Organizational Structure is Key



# High reliability Organizations (HRO)



- Operate in environments where potential for disaster is high
- Very high risk tolerance
- Top priority is effective performance
- Avoid disasters through collective learning
- Develop a culture of reliability



[joseph.mayo@jwmc-llc.com](mailto:joseph.mayo@jwmc-llc.com)

# High reliability Organizations (HRO)



- Five characteristics of a HRO
  1. extensive process auditing procedures
  2. reward system that rewards risk mitigating behavior
  3. quality standards that exceed referent industry standards
  4. correctly assess risks and their associated impact
  5. strong command and control structure consisting of
    - migrating decision making
    - redundancy
    - rules and procedures
    - training
    - situational awareness



*[joseph.mayo@jwmc-llc.com](mailto:joseph.mayo@jwmc-llc.com)*

# How do we get there?

- Develop a culture of resilience
  - National Threat and Hazard Identification and Risk Assessment (National THIRA)
    - <https://www.fema.gov/emergency-managers/risk-management/risk-capability-assessment>
    - Get ready and prepare <https://www.ready.gov>
- Improve organizational risk competency
- Use premortems to envision the future
  - Focus on outcomes and not specific risk events



*Live Content Slide*

*When playing as a slideshow, this slide will display live content*

# Social Q&A for ISACA Maryland Chapter Virtual Conference



*[joseph.mayo@jwmc-llc.com](mailto:joseph.mayo@jwmc-llc.com)*

# Thank You!

• • •

Joseph W. Mayo

@TaoOfRisk

[joseph.mayo@jwmc-llc.com](mailto:joseph.mayo@jwmc-llc.com)

<https://www.linkedin.com/in/josephmayo/>



*[joseph.mayo@jwmc-llc.com](mailto:joseph.mayo@jwmc-llc.com)*