



Emerging Leaders Program

Welcome  
Networking Breakfast



# Emerging Leaders Program: Emerging Risk: Polycrisis

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Toronto  
March 2024

# Agenda

1. What is a Polycrisis?
2. What are the current and emerging risks contributing to a Polycrisis?
3. Preparation and Response to a Polycrisis
4. Case: Polycrisis - what is brewing on the horizon?
5. Polycrisis: Organizational priorities and the role of the Board

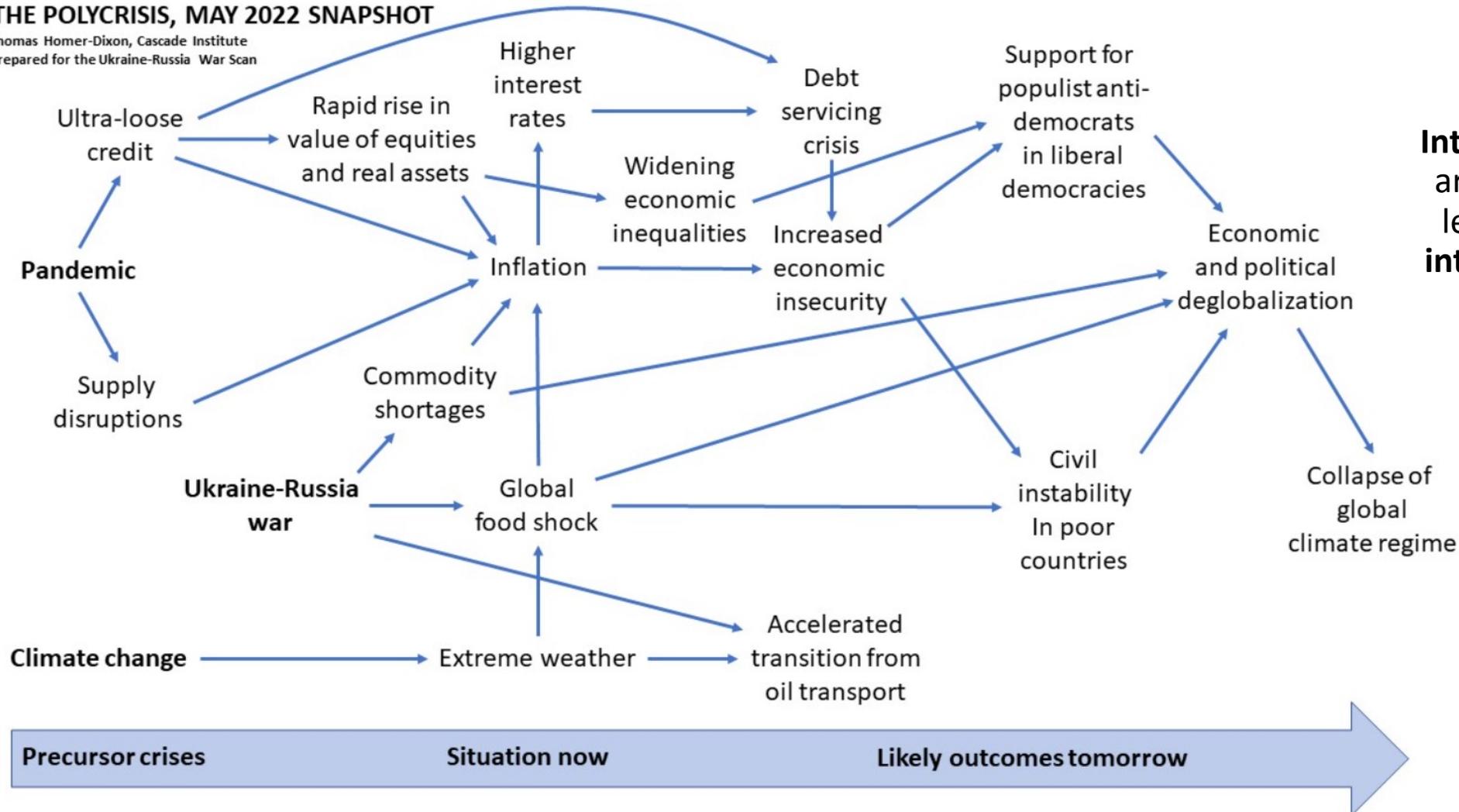


# What is a Polycrisis?

“A Polycrisis is a situation where multiple crises intertwine, their causes and processes inextricably bound together to create compounded effects.”

## THE POLYCRISIS, MAY 2022 SNAPSHOT

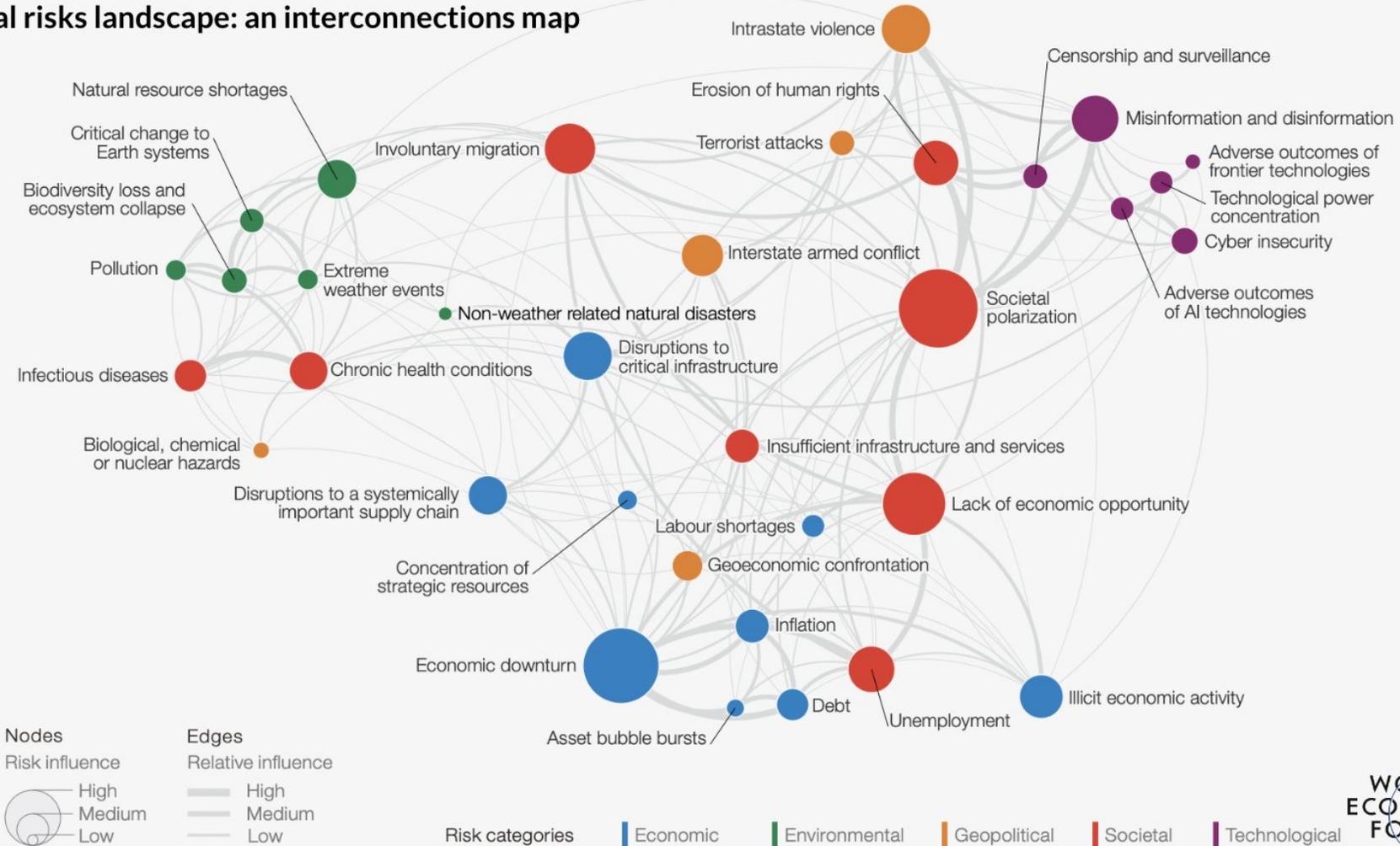
Thomas Homer-Dixon, Cascade Institute  
Prepared for the Ukraine-Russia War Scan



**Interconnected systems are the norm, and can lead to simultaneous interaction of multiple, diverse crises**

# The World Economic Forum Identifies the Interconnectedness of Global Risks and Trends

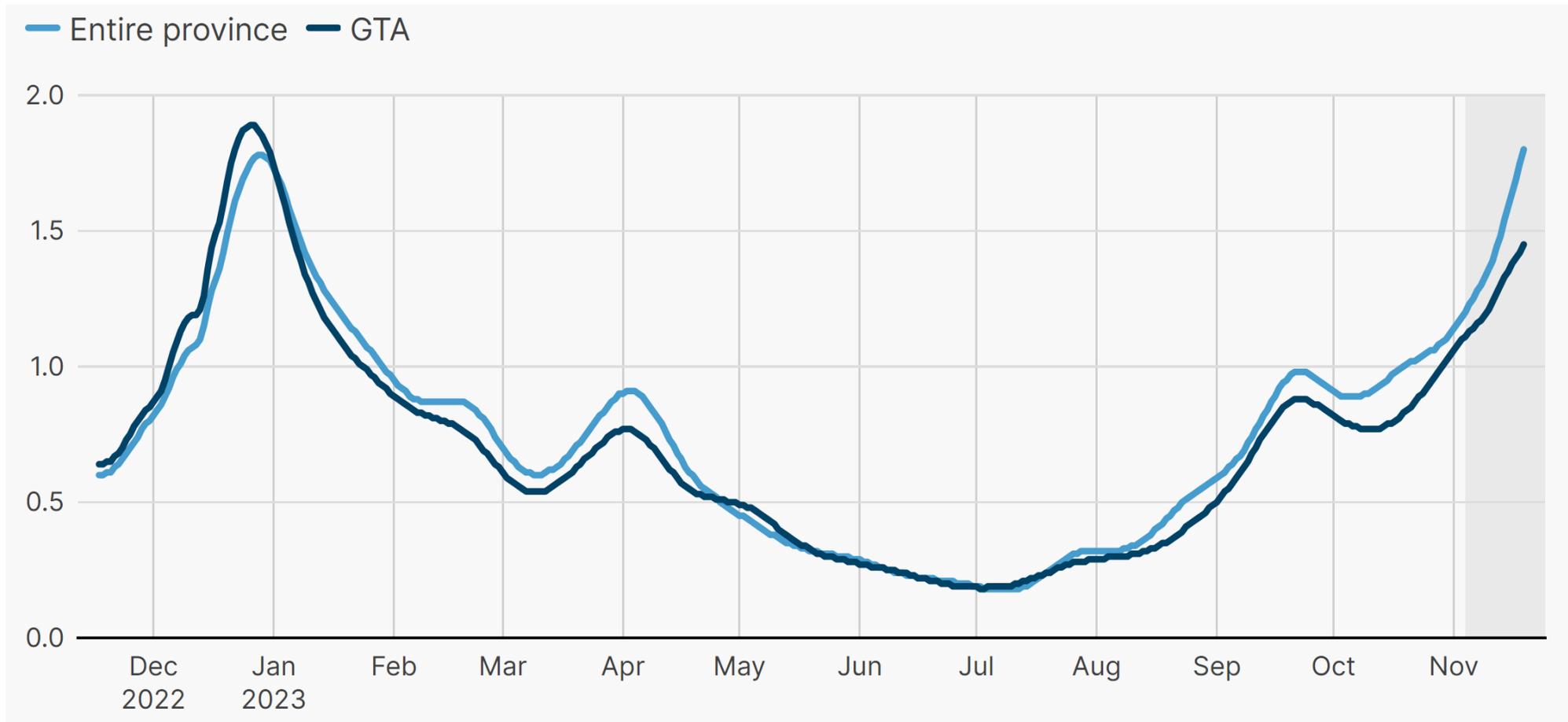
Global risks landscape: an interconnections map



Source: World Economic Forum Global Risks Report 2024

# Societal - Covid from Pandemic to Endemic

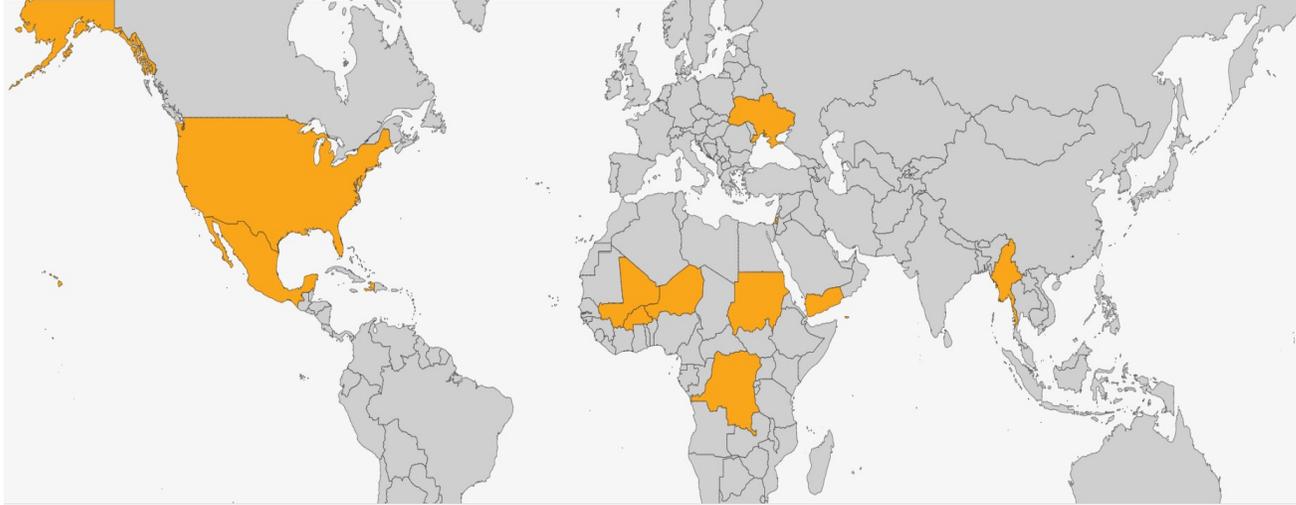
COVID-19 wastewater signal



[https://www.thestar.com/news/canada/ontario-covid-wastewater-signal-hits-one-year-peak-your-chance-of-being-exposed-is-very/article\\_c2dda324-7b2e-505f-9091-ef2d5897](https://www.thestar.com/news/canada/ontario-covid-wastewater-signal-hits-one-year-peak-your-chance-of-being-exposed-is-very/article_c2dda324-7b2e-505f-9091-ef2d5897)

# Geopolitical Instability will Continue to Shape the Current Economic and Political Climate for the Foreseeable Future

## CURRENT CONFLICT



- [Ukraine: A Deadly Stalemate with No End in Sight](#)
- [Palestine: An Uncertain Future for Gaza and the West Bank](#)
- [Yemen and the Red Sea: Rising Tensions Threaten Peace Process and International Security](#)
- [Sudan: Setting the Stage for a Long War](#)
- [The Sahel: A Deadly New Era in the Decades-Long Conflict](#)
- [Democratic Republic of Congo: Re-elected President Tshisekedi Faces Regional Crisis in the East](#)
- [Myanmar: Resistance to the Military Junta Gains Momentum](#)
- [Haiti: Gangs and Vigilantes Thrive Amid Political Deadlock](#)
- [Mexico: Confronting Deadly Political and Criminal Power Struggles in an Election Year](#)
- [United States: Intensifying Polarization and the Looming Presidential Election](#)

## POTENTIAL FUTURE CONFLICT

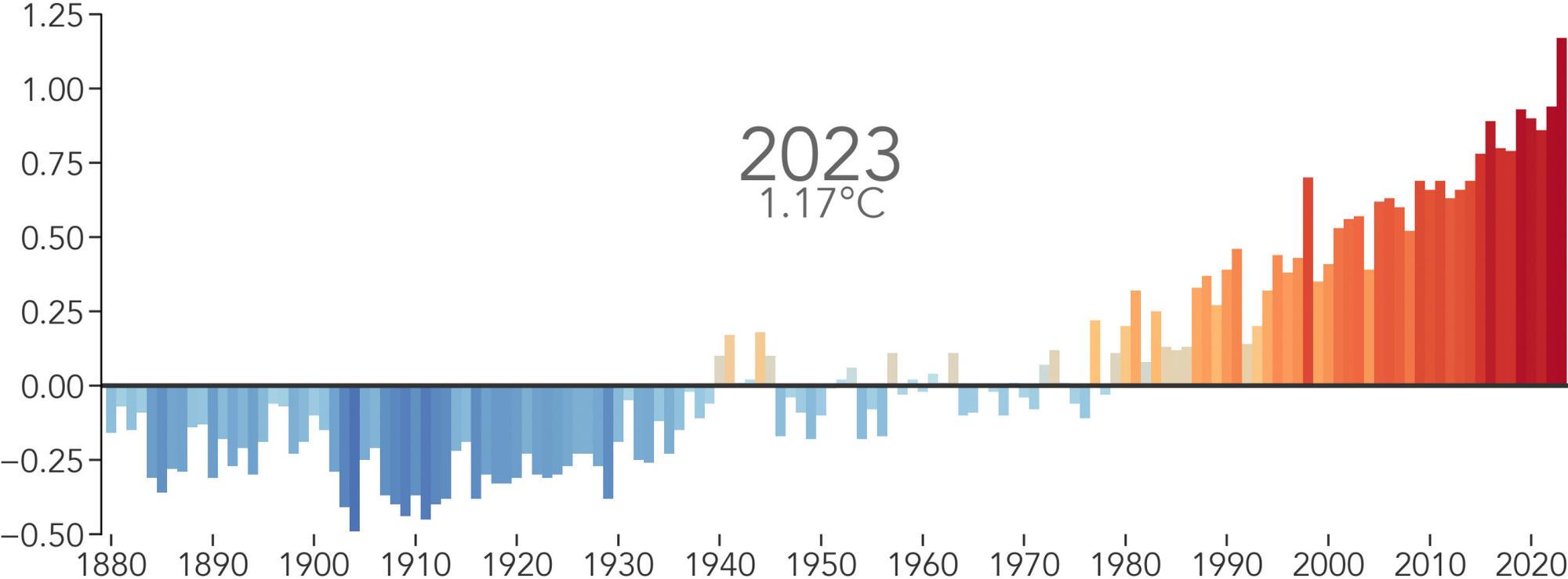


# Climate Change - Rising Temperatures and the Analytical Deficit

- Global temperature trends since 1880 show marked acceleration in recent years

## Summer 2023 Continues Long-Term Warming Trend

June, July, and August Global Temperature Anomaly (°C compared to the 1951-1980 average)



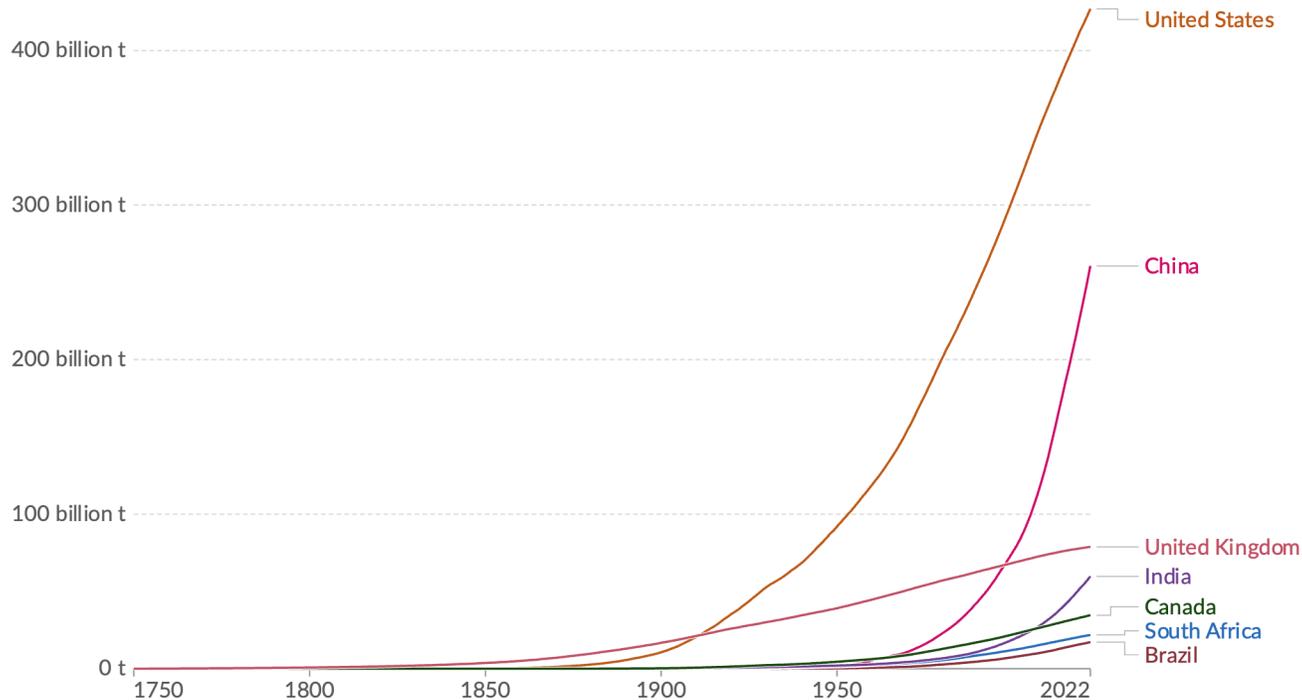
Source NASA Earth Observatory <https://earthobservatory.nasa.gov/world-of-change/global-temperatures>

# Climate Change - Rising Carbon Emissions and the Capacity to Act Deficit...to the Willingness to Act Deficit

## Cumulative CO<sub>2</sub> emissions

Running sum of CO<sub>2</sub> emissions produced from fossil fuels and industry<sup>1</sup> since the first year of recording, measured in tonnes. Land-use change is not included.

Our World  
in Data



Data source: Global Carbon Budget (2023)

[OurWorldInData.org/co2-and-greenhouse-gas-emissions](https://OurWorldInData.org/co2-and-greenhouse-gas-emissions) | CC BY

1. Fossil emissions: Fossil emissions measure the quantity of carbon dioxide (CO<sub>2</sub>) emitted from the burning of fossil fuels, and directly from industrial processes such as cement and steel production. Fossil CO<sub>2</sub> includes emissions from coal, oil, gas, flaring, cement, steel, and other industrial processes. Fossil emissions do not include land use change, deforestation, soils, or vegetation.

- From the 1972 United Nations Conference on the Human Environment...
- ...to last year's COP28 UN Climate Change conference...
- ...there have been decades of meetings, but only modest progress

# What are the Other Main Contributors to a (Potential) Polycrisis?

Top Five Perceived Risks to the Canadian Financial System  
GRI Risk Outlook Survey - 2024

Rank	2024	2023	2022	2021
#1	Credit, Economic	Economic	Economic	Economic
#2		Cyber	Cyber	Cyber
#3	Cyber	Credit	Climate	Climate
#4	Geopolitical	Geopolitical	Credit	Pandemic
#5	Technology	Talent	Talent	Credit

*\*Rankings based on the # of selections within the Top 3 Risks*

# Preparation and Response

1. Awareness – Constantly scanning for the risks and trends that will affect your organization
2. Review your organizations strategy, and the underlying assumptions that you have made in making those assumption.
3. Prioritize which risks and trends that you think will have the greatest impact on your organization based upon impact (severity & probability) and urgency (0 – 10 years)
4. Map your organizations risks and trends based upon impact and urgency.
5. Identify inter-relationships between risks and trends, and their potential synergies.
6. Run Scenario Analysis and Stress Testing to identify Key Insights.
7. Adjust Organizational Strategies for Key Insights.

# Case: Polycrisis - What is brewing on the horizon?

Review the Polycrisis case, discuss in your groups how your organization should Prepare and Respond to the Polycrisis on the horizon?

Debrief

Have each member of your group to share one finding.

# Polycrisis - Organizational Priorities

## Integrated Risk Management Approach

- Adaptable, forward-thinking, holistic
- Consider individual risks and interconnectedness
- Stay “ahead of the curve

## Adaptive Investment Strategies

- Adjust investment strategies to interdependencies among multiple concurrent challenges

## Contingency Planning

- Stress scenarios that capture interconnections
- Robust contingency planning

## Collaboration and Communication

- Stakeholder communication on how interconnection impacts investment decisions
- Foster collaboration with industry peers, regulatory bodies, and other stakeholders

# Polycrisis – Role of the Board

“The emphasis on a Polycrisis calls on Boards to not only look more broadly on global risks that might affect the company’s business, but also to look at them in a different way.”  
Forbes

Board members “...must navigate the short-term opportunities and risks, while also looking into the future to assess events that can materially impact, or potentially derail, their business. We are living through an era of crises, and Board members need to be increasingly aware of what those crises are – and how they could impact their company.”

KPMG

## **Board Oversight of a Polycrisis - consider Board governance practices across the following activities:**

- **Process:** assessing and considering complexity and interconnectedness of risks
- **Roles:** mandates for relevant Board members and/or committees
- **Agenda:** identify related issues that should be on the agenda, and how often
- **Skills:** ensure competence and expertise needed to address these issues
- **Effective Challenge:** challenge management’s processes to manage complexity and inter-relation of risks



# Emerging Leaders Program: Emerging Risk: Cyber Risk

Tony Peccia  
Executive in Residence

Toronto  
March 2024

# CISO versus CRO

	CISO	CRO
Overall	<p><b>First line of Defense:</b></p> <ul style="list-style-type: none"> <li>The What: Ensures the organization's IT infrastructure, systems, and data, are secure. Monitors and responds to cyber threats in real-time</li> <li>The How: implements and manages cybersecurity technologies, tools, and processes.</li> <li>Is the technical cyber and technology expert</li> </ul>	<p><b>Second Line of Defense:</b></p> <ul style="list-style-type: none"> <li>The What: Ensures the organization has identified its Cyber risk, that the risks are kept within the Risk appetite, that the organization has the financial and operational resilience to rapidly recover after a cyberattack and has the governance structure and processes to ensure the efficient management of cyber risk</li> <li>The How: develops policies, frameworks and monitors and challenges first line management of cyber risk</li> <li>Is the risk expert</li> </ul>
Risk ID/ Exposure	<ul style="list-style-type: none"> <li>Identifies risk according to the org's Risk Taxonomy and</li> <li>Assigns the Risk Rating of each identified exposure</li> </ul>	<ul style="list-style-type: none"> <li>Creates and maintains the org's Risk Taxonomy and Risk Rating system (inherent and residual)</li> <li>Reviews and challenges the Risk ID and Risk Rating of the 1<sup>st</sup> line</li> </ul>
Risk Control	<ul style="list-style-type: none"> <li>Implements the technology. Systems and process controls necessary to keep the residual risk within the Risk Appetite</li> <li>Develops strategies and deploys technology to return within the RA, including White hat attacks, Desktop and Red Team Blue team simulations</li> </ul>	<ul style="list-style-type: none"> <li>Creates the Risk Appetite Framework and associated metrics</li> <li>Reviews and challenges the adequacy and effectiveness of the controls and works with 1<sup>st</sup> line to return to within RA</li> <li>Monitors cyber risk and escalates when triggers are breached</li> </ul>
Resilience	<ul style="list-style-type: none"> <li>Develops and maintains the Cyber resiliency plan and ensures its operability and to rapidly recover from a breach</li> <li>After a Cyber breach executes the resiliency plan including deploying technology and process to isolate, contain cyber breaches and restore operations.</li> </ul>	<ul style="list-style-type: none"> <li>Develops policy and standards for adequate financial and operational resiliencies, including</li> <li>having sufficient financial resources (capital, insurance) to sustain a cyber breach,</li> <li>recovery level and time requirements for critical systems</li> <li>communication plan</li> </ul>
Governance	<ul style="list-style-type: none"> <li>Executes all the requirements of the Governance structure and processes, including chairing various Information Security committees</li> </ul>	<ul style="list-style-type: none"> <li>Creates and owns Policies/Frameworks and Governance structure, including specifications for Information Security committees</li> <li>Defines Roles and Responsibilities for 3 Lines of defense Senior Management, BoD; escalation requirements</li> <li>Regulatory requirements</li> </ul>

# Cyber Risk Case Studies

Three mini scenarios will be analyzed to explore the associated cyber risk, mitigation, resilience, and governance strategies.

- **Scenario 1:** Sophisticated Phishing Attack on Globank Financial
- **Scenario 2:** Insider Threat Leading to Data Integrity Breach at Globank Financial
- **Scenario 3:** Ransomware Attack on Globank Financial

Instructions:

- In your table groups, review each scenario and answer the 4 questions identified
- Use the worksheet provided to document your answers
- Assign a spokesperson to share your answers with the larger group

# Cyber Risk Case Studies

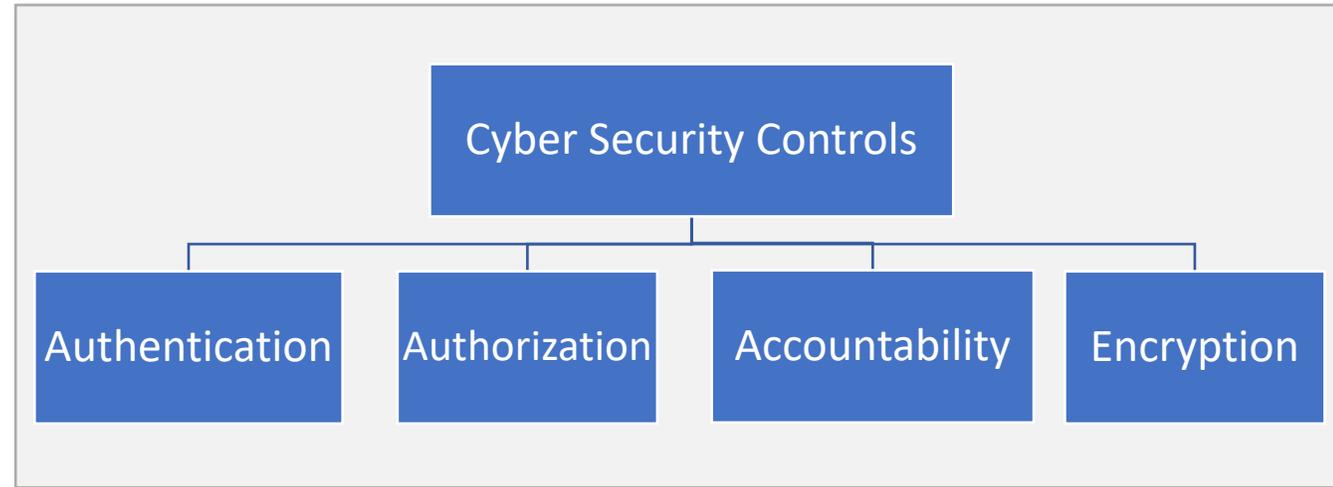
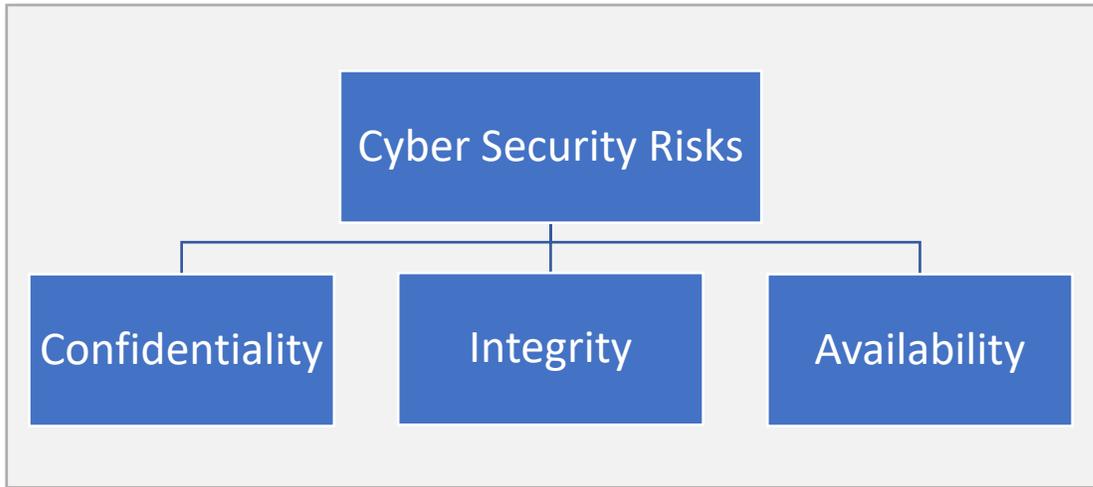
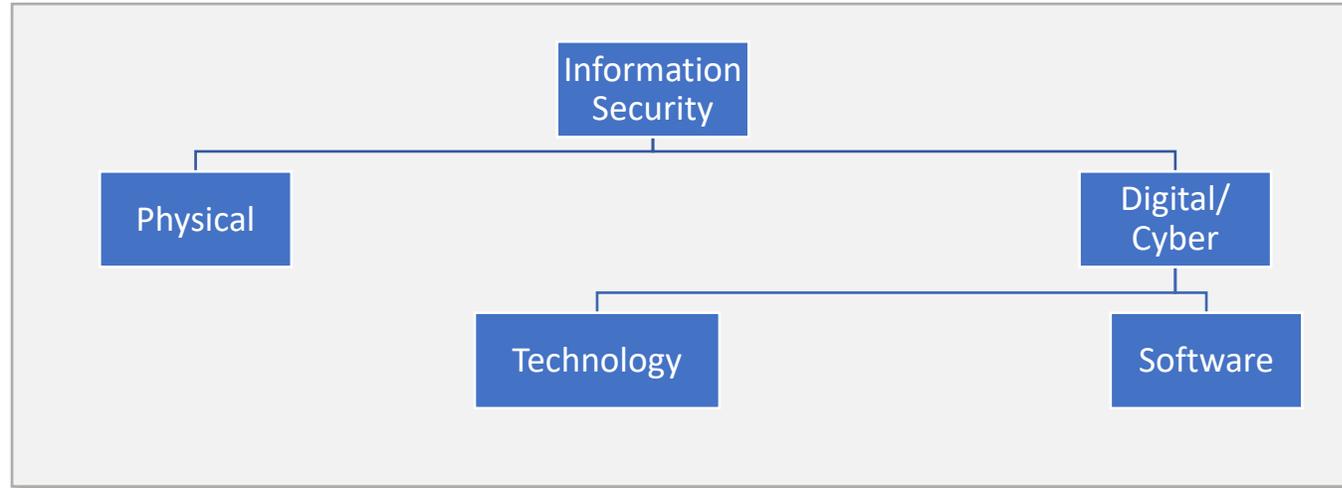
Question	Scenario 1: Sophisticated Phishing Attack on Globank Financial	Scenario 2: Insider Threat Leading to Data Integrity Breach at Globank Financial	Scenario 3: Ransomware Attack on Globank Financial
1. What are the key risks in the cyber threat scenario?			
2. What are other manifestations or realizations of the same type of risk?			
3. What resiliency needs to be in place?			
4. What are the main controls available to mitigate these risks?			

# NIST Cybersecurity Framework

Risk Management Framework	National Institute for Standards and Technology (NIST)
<p>Applies to <b>All</b> risk types, only the specifics change</p> <ul style="list-style-type: none"> <li>• Favored by CROs and Second Line Risk Management in Financial Institutions</li> <li>• 4 comprehensive mutually exclusive key components</li> </ul>	<p>NIST Cybersecurity Framework 2.0 (new version released Feb 25, 2024)</p> <ul style="list-style-type: none"> <li>• 1.0 was aimed at critical infrastructure organizations</li> <li>• 2.0 was expanded</li> <li>• Favored by CISO</li> <li>• 6 elements</li> </ul>
<p>Risk ID/ Exposure</p>	<ul style="list-style-type: none"> <li>• Identify</li> </ul>
<p>Risk Control</p>	<ul style="list-style-type: none"> <li>• Protect, detect, respond</li> </ul>
<p>Resilience (includes financial and operational resilience)</p>	<ul style="list-style-type: none"> <li>• Recover</li> </ul>
<p>Governance Comprehensive: 3LODS, Senior Management, BOD and Regulators</p>	<ul style="list-style-type: none"> <li>• Govern (added in 2.0): The addition of the Govern function provides a vital and previously missing piece to the NIST Cybersecurity Framework</li> </ul>

<https://www.securityweek.com/industry-reactions-to-nist-cybersecurity-framework-2-0-feedback-friday/>

# Risk Management Framework Applied to Cyber Security



An overhead photograph of a group of five people sitting around a dark wooden table in a meeting or workshop. They are engaged in collaborative work, with several laptops open and one person looking at a notebook with diagrams. The scene is brightly lit, and the floor is a light-colored concrete. A dark blue semi-transparent rectangle is overlaid in the center of the image, containing white text.

# Emerging Leaders Program

## Break



# Emerging Leaders Program: Risk Reporting & Communication

Michael Stramaglia  
Executive in Residence

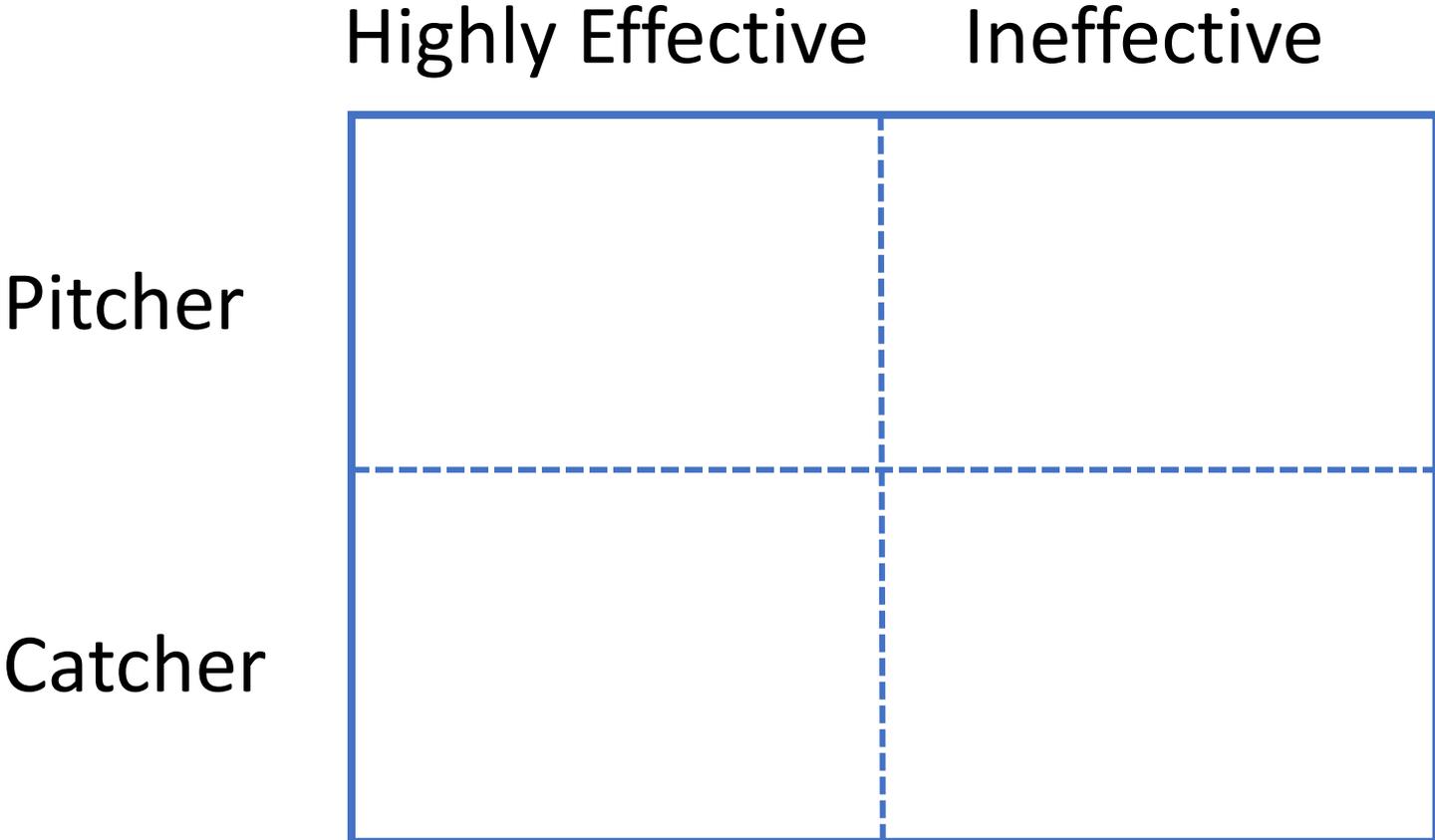
Toronto  
March 2024

# Learning Objectives

- Gain understanding of various stakeholders' requirements for effective communication of risk information.
- Understand “Three Questions” framework for structuring risk reporting and communication
- Learn guiding principles for risk reporting and communication.

# **Break-Out Group Exercise:** Reflections on Prior Experiences

# Risk Reporting and Communication: Group Reflections



# Three Key Questions in Risk Reporting

- What? – Underlying Data/Information
- So What? – Context and Insight
- What Now? – Enabling Decisions/Risk Actions

# Exercise:

## Know Your Audience

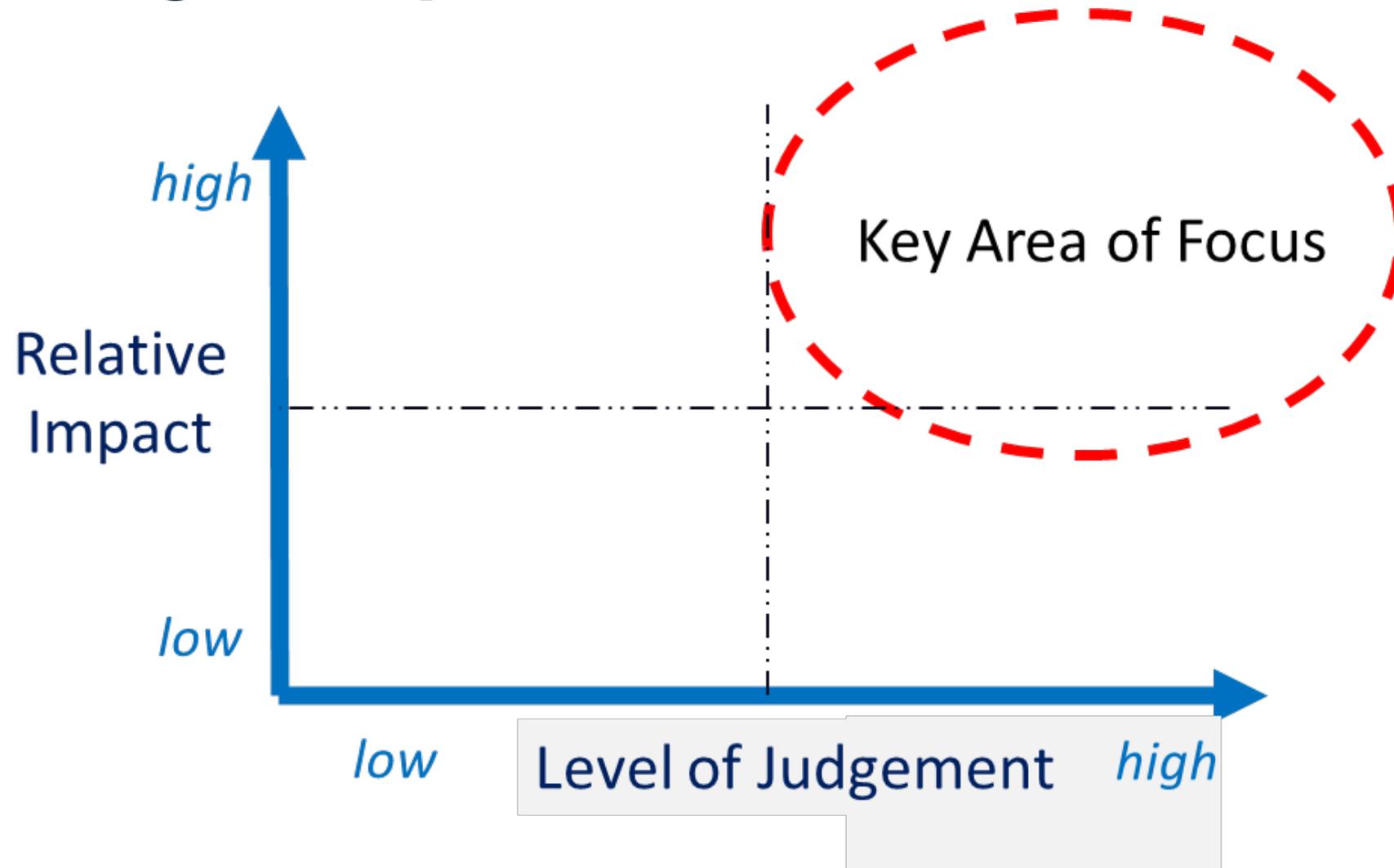
# Guiding Principles

- Relevant
- Purpose
- Content & Form
- Proportionality
- Information/Data/Opinions
- Clarity

*“I wrote you a long letter because I didn’t have time to write you a short letter.”*

*Mark Twain*

# Guiding Principles



# Guiding Principles

- Accuracy
- Timely
- Context
- Standardized
- Consistency
- Adaptability

# Discussion

An overhead photograph of a group of five people sitting around a dark wooden table in a meeting. The people are engaged in a discussion, with several laptops open on the table. One person is wearing a bright yellow jacket, another a white shirt with glasses, and a woman has her hair in a bun. The table is cluttered with work items like notebooks, pens, and coffee cups. A dark blue semi-transparent box is overlaid in the center of the image, containing white text.

# Emerging Leaders Program Networking Lunch

# Emerging Leaders Program

## Risk Culture Panel



**Tony Peccia**

Executive in Residence  
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**Michael Stramaglia**

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**Gerard McDonald**

Managing Director,  
Head of Research,  
GRI

# Emerging Leaders Program

Risk Oversight and Insight: A Board Perspective



**Sonia Baxendale**

President & CEO

GRI

# Emerging Leaders Program



Please take  
Day 2 Survey