Shedding Light on the Supply Chain

Department of National Defence

CIPMM National Workshop

7 June 2023

Canada

Outline

- Why is Supply Chain Risk Management Important
- Strategic Context
- Supply Chain Risk Assessment Service Solutions
  - What exists and what are the potential benefits
- How are we assessing supply chain risks
- How are we leveraging risk and threat information
- Lessons observed in establishing this capacity

Why is Supply Chain Risk Management Important

GOVERNMENT & PUBLIC SECTOR | SECURITY

Canadian military provider suffered ransom attack, says news report

HOWARD SOLOMON JUNE 9, 2022

A Canadian military contractor has acknowledged suffering a ransomware attack.

In a statement to *ITWorldCanada.com*, CMC Electronics said an unauthorized third-party had gained access to its computer network on May 31st and disrupted operations with a ransom

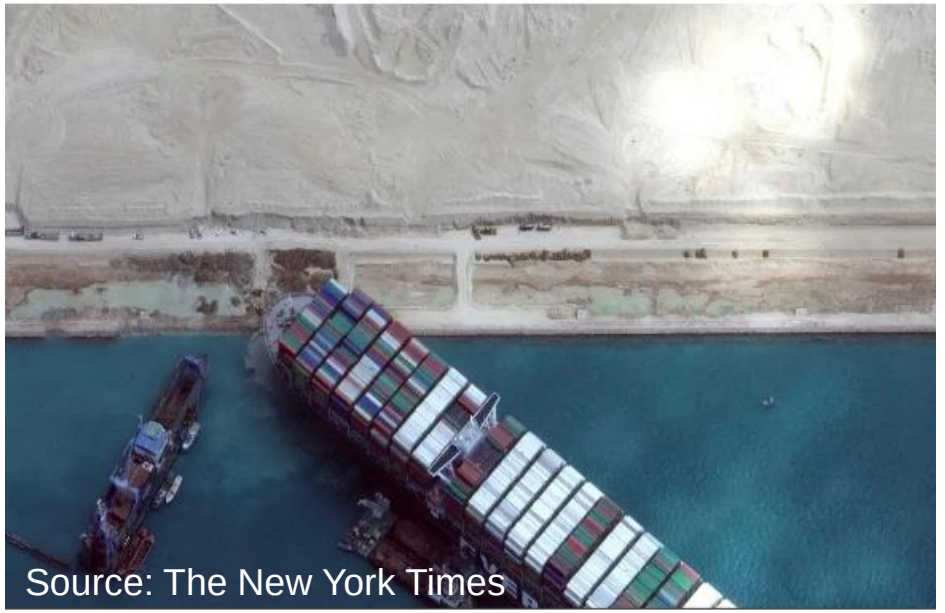
Source: Business Insider

The New York Times

How One of the World's Biggest Ships Jammed the Suez Canal

Four months after the megaship Ever Given got stuck in the canal, neither the canal nor the shipping industry has addressed some of the most critical issues that led to the grounding.

Give this article



Source: The New York Times

Strategic Context

"Canada's prosperity – and middle class jobs – depend upon…ensuring our supply chains are strong and resilient."

2021 Speech from the Throne

"Ensure the CAF is a 21st century military with the capabilities, equipment and culture to implement Canada's Defence Policy…and anticipate and respond to the full range of current and emerging threats"

MND Mandate Letter

"The two leaders launched a strategy to strengthen Canada-U.S. supply chain security and agreed to reinforce our deeply interconnected and mutually beneficial economic relationship. "

Roadmap for a renewed US – Canada Partnership 2021

Supply Chain Risk Assessment Solutions

- We've been investigating solutions since Fall 2017
- Different companies offer different approaches
- Have run a pilot project with one supplier and a specific Defence System
- Established a Contract with Task Authorization for illumination and assessment services
- Collaboration with our allies in this space

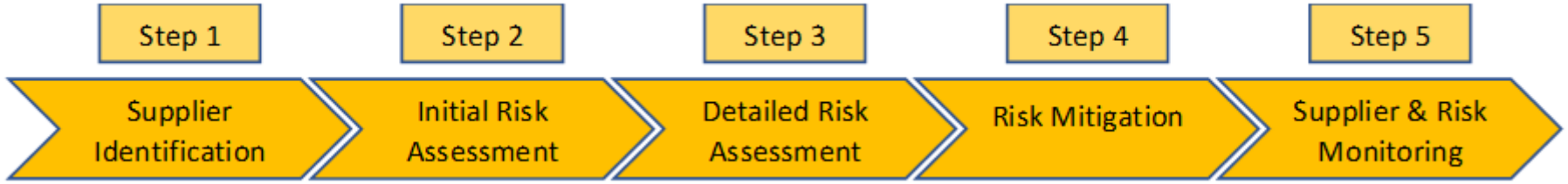
Potential Benefits

- For the acquisition process:
  - Pre-RFP:
    - Socialize intent to leverage Supply Chain Identification and Risk Assessment with Potential Suppliers or Qualified Suppliers (incentivizes good governance)
  - RFP:
    - Inclusion of specific Supply Chain Identification and Risk Assessment Criteria for Bid Evaluation (possible link to Capability Delivery Risk Evaluation)
    - Notify suppliers (Bid Instructions) with intent to conduct with Supply Chain Risk Assessments
  - After contract award:
    - Conduct assessment to monitor supply chain risks throughout the contract
    - Anytime following the Contract Award when there is an indication of a change in partnership within the major suppliers in the supply chain
- In-Service Support:
  - As a means to identify risk areas before contract renewal
    - Could be used as part of the Sustainment Business Case Analysis criteria
  - As a means of mitigating new risks in the supply chain throughout the existing contracted work
  - Obsolescence of spare parts

How are we conducting Supply Chain Risk Assessments

- Have entered into contract with Ernst and Young (EY) for Supply Chain Illumination and Risk Assessment services
  - EY BRETA tool provides automated analysis to help analysts focus on detailed manual analysis for most significant risks as defined by the client
- Currently illuminating and assessing supply chain risks for single military platforms
- Risk Assessments being integrated in overall project/platform risk registers

What are the steps of Supply Chain Illumination and Risk Assessment



- Illumination/identification
  - Identify all suppliers within a supply chain, from prime contractor all the way down to suppliers of raw material
- Risk identification and analysis
  - Determine problems or potential risk points in the supply chain based on the illumination
- Mitigating Recommendations
  - Provide recommendations to reduce supply chain risks
- Continuous Monitoring
  - Maintain the illumination of the supply chain as it changes over time and adapt

EY BRETA Threat Dimensions

EY | BRETA

Appendix - Five Threat Dimensions

Financial

Financial health and viability, evaluated on the basis of key financial metrics and indicators

Holistic assessment of financial health using publicly available financial data:

- Size and liquidity assessed from a entity's balance sheet
- Earnings health assessed from the income statement
- Threat of default assessed from the balance sheet and income statement

Ecosystem

The footprint and processes of sourcing and logistics, and elements of supply network efficiencies

Indicates the threat of experiencing adverse outcomes due to the relationships and dependencies of its ecosystem. Threats include:

- Loss of capability or operational disruptions due to any reason that makes it an unviable source of supply
- Compromised intellectual property or technical advantage due to a joint venture relationship

Geopolitical

Country risks associated with relationships, based on indicators of in situ, market and operating environment risk

Indicates the threat of experiencing adverse outcomes due to the countries an entity conducts business in.

Uses geopolitical factors such as:

- International: impact of cross-border interests of countries in defined policy areas collide
- Domestic: national political impact on corporations
- Regulatory: stability of regulatory regime
- Societal: social impact on corporations

Cybersecurity

Strength and rigor of cyber hygiene based on external indicators of behaviors and reported incidents

Indicates the threat of adverse outcomes due to the entity's IT infrastructure, policies and procedures

A multidimensional perspective on the strength/health of an entity's cybersecurity as measured by external indicators, including:

- Evidence of malware
- Hacker chatter
- Time taken to apply software patches
- Past data breaches

Innovation

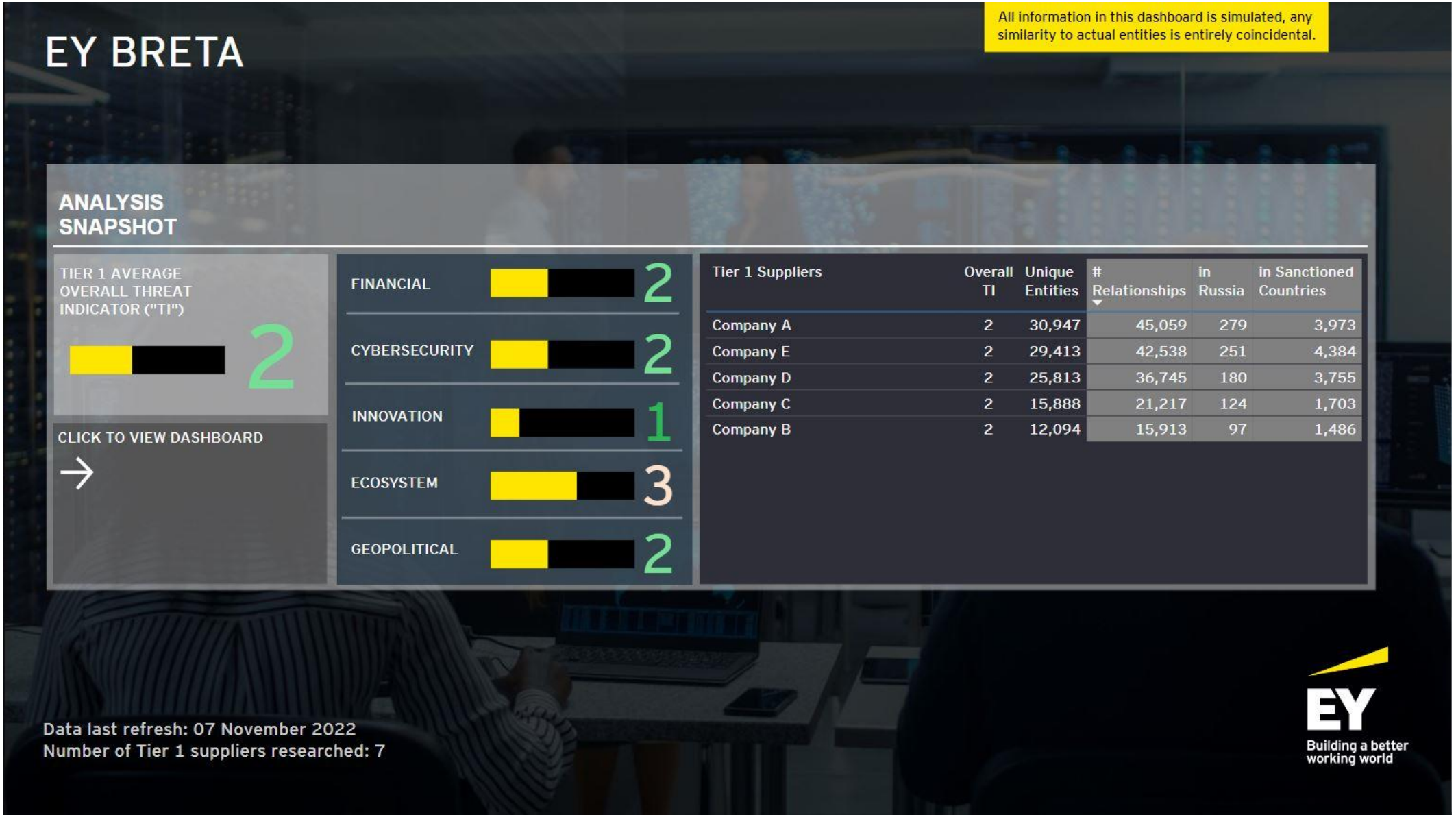
Currency, differentiation and sustainability of technological capabilities, R&D rigor, and adaptability

Indicates the threat of adverse outcomes related to an entity's innovations and intellectual property.

The Innovation threat indicator consists of the following:

- Significance: measure of downstream impacts of an innovation in its technical field
- Breadth: the scope of technological fields in which a entity innovates
- Coverage: geographic locations or legal jurisdictions into which patents are filed
- Effectiveness: assessment of the enforceability of patents

EY BRETA Client Dashboard



EY BRETA Client Dashboard

EY BRETA Client Dashboard

How are we leveraging this information

- Leveraging in contract negotiations
  - Obtaining parental guarantees
- Obtaining picture of supply chain distribution
  - Are the sub-suppliers in countries of concern?
  - Is the current supply chain providing best value to GoC?
- Exercising due diligence
- Sharing risk picture of our supply chains with 5-Eyes partners for common equipment
- Not all risk mitigation options can be exercised in current contracting construct

Lessons observed in establishing the capacity

- RFP criteria for the service contract should focus on both the experience and the toolsets available
- Consider including a subscription to the service providers supply chain illumination tool
- Internal capacity to review analysis and dashboards needs to be considered
- Supply Chain Illuminations are limited to supplier relationships, level of fidelity decreases significantly below tier 2. Whether a tier 2/3/4 supplier is actually supplying to DND is not definitive and requires manual analysis

Conclusion

- Illuminating our supply chains is key to understanding the potential risks
- Risks must be contextualized and understood
- Risks must be dealt with to ensure supply chain resiliency and maintain capabilities / delivery of our departments' core mandates
- Work remains to develop approaches to execute risk mitigation options

Questions