

Session 3 (Part 2): Integrating Climate Change and Risk

Wednesday, April 25, 2023



This initiative is offered through the Municipal Asset Management Program, which is delivered by the Federation of Canadian Municipalities and funded by the Government of Canada.

Our Approach to Discussion

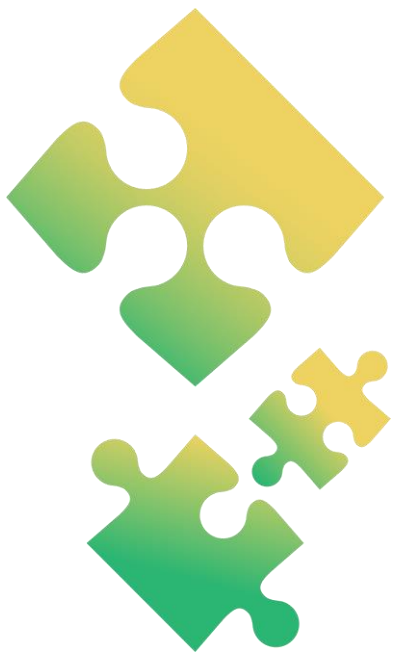
1. Overview of key concepts



2. Practical example of climate and asset risk



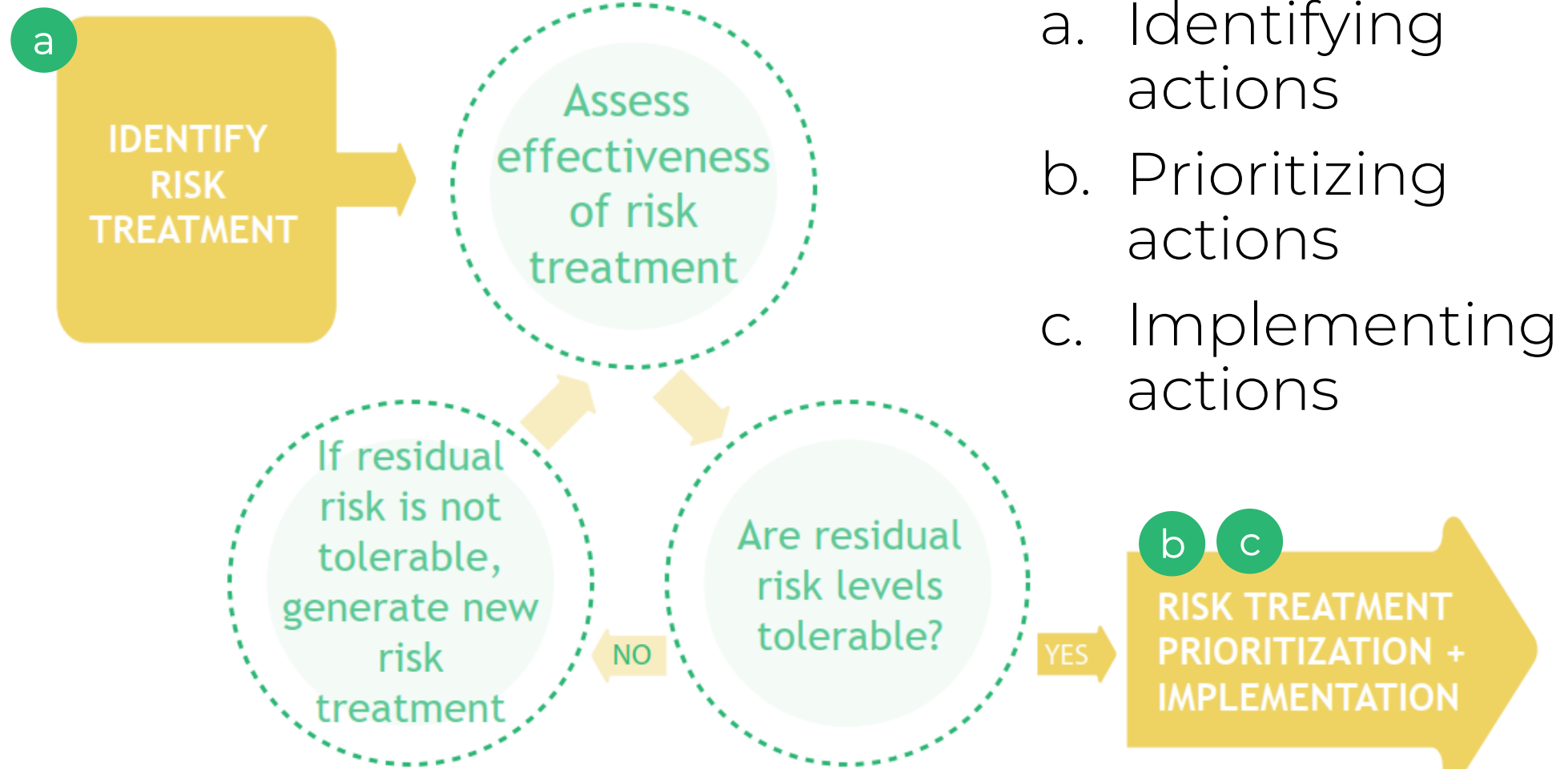
3. Common pitfalls to watch out for



BREAKOUT DISCUSSION!

Team coffee time

Step 3: Risk Treatment



- a. Identifying actions
- b. Prioritizing actions
- c. Implementing actions



Identifying Actions

Risk Treatment Option	EXAMPLE
Avoiding the risk (cease activity that gives rise to the risk)	Choosing not to redevelop properties in the floodplain.
Removing the hazard (risk source)	Decommissioning a playground that is identified as high risk due to poor condition.
Changing the likelihood	Renewing assets to improve condition and decrease likelihood of failure.
Changing the consequences	Adding a secondary road access to a remote or isolated community in case of emergency evacuation.
Sharing the risk with another party or parties (contracts, risk financing)	Joining a regional commission.
Retaining the risk by informed decision	Adopting a “run to failure” philosophy for select assets.



Identifying Actions

Other considerations in selecting risk treatments may include:

- Organizational strategic goals
- Levels of service (current and target)
- Human and financial resources to implement the action
- Scale of impact
- Value for money



Step 3: Risk treatment – CASE STUDY

Identifying actions:

- Focus of the study was to inform capital planning for asset replacement
- Actions to treat risks were primarily asset replacement/renewal
- Additional actions were identified to treat risks, e.g.:
 - Revise design and construction standards
 - Increase and focus maintenance activities



Common Pitfalls in Identifying Actions

- Overlooking actions that may be contradictory
- Scoping risk management actions too narrowly and missing opportunities for co-benefits
- Overlooking risks because there is an assumption nothing can be done



Prioritizing Actions

- Not enough resources available to tackle all risks at once
- Highest risk does not always mean highest priority
- Done through capital planning, master planning, or asset management planning



Prioritizing Actions

Flexibility v. Rigidity

- Keep in mind how much flexibility you require to adapt to changing factors
- More considerations for prioritizing actions means more effort to update priorities
- Detailed action plans can become out of date quickly
- Benefits and drawbacks on both ends of the spectrum

SIMPLE & FLEXIBLE: Actions to mitigate climate and asset risks are prioritized based on risk levels.

DETAILED & RIGID: The more lenses you integrate the more rigid your priority actions are.

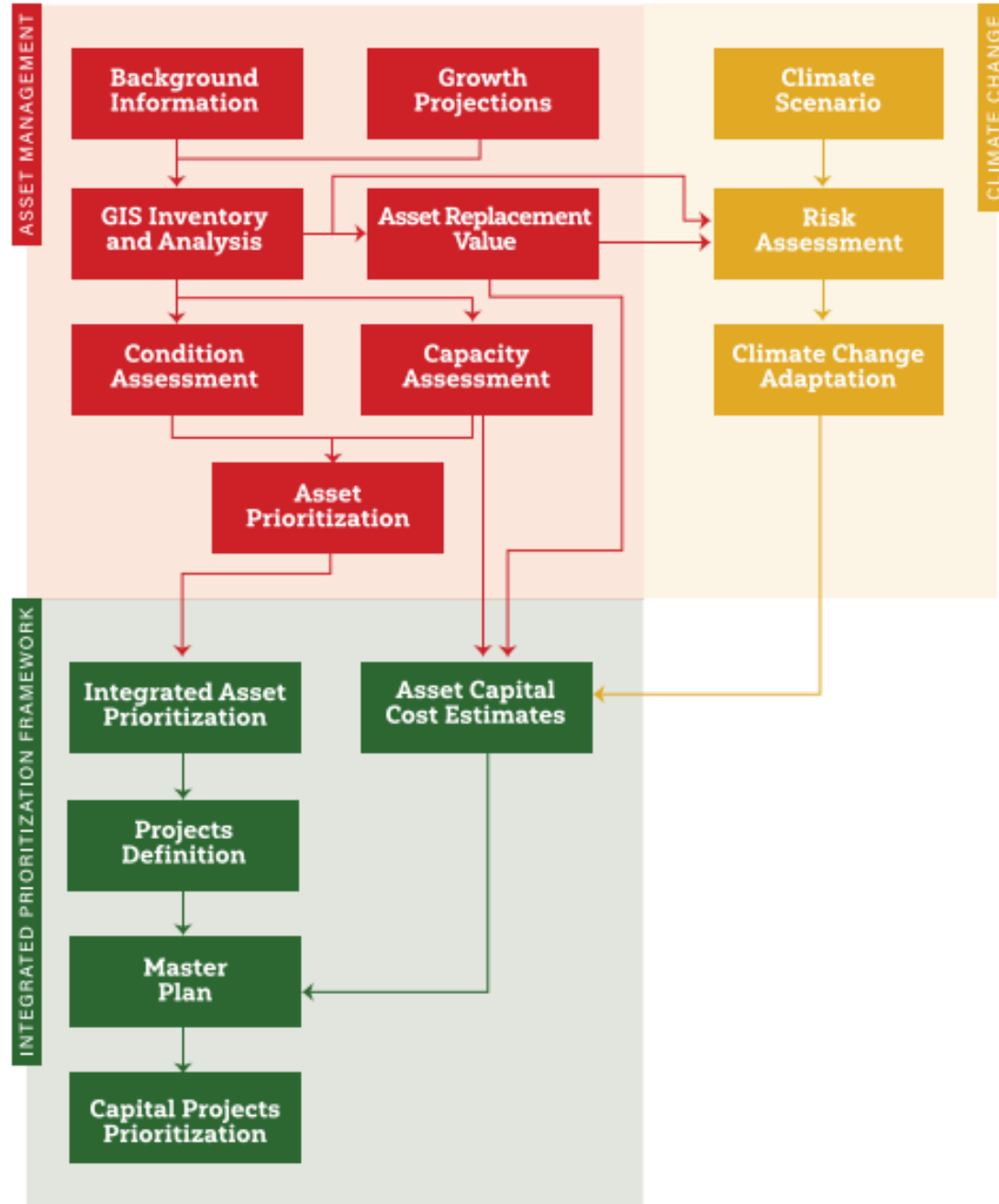


Step 3: Risk treatment – CASE STUDY

Prioritizing actions:

- Risk assessment results used to inform capital planning
- Focus on high priority (P1) assets based on affordability limits
 - Existing condition and capacity were primary drivers for near-term pipe projects
- Increase roads maintenance
- Determine strategy to address funding gap

Figure 3 - General Asset Management & Climate Change Integration Process





Common Pitfalls in Prioritizing Actions

- Making the prioritization process too onerous or complicated
- Developing a prioritization process/framework that is out of alignment with community goals



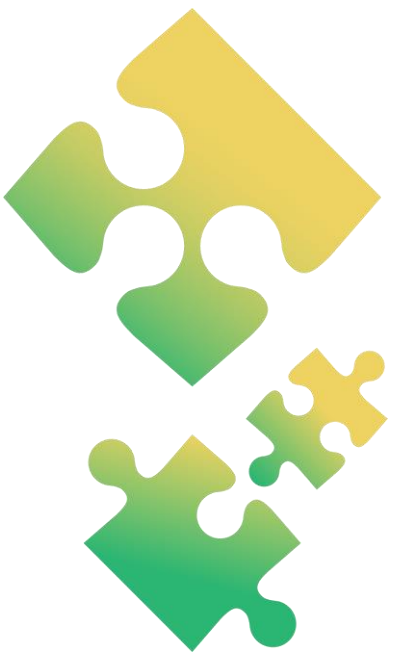
Implement Actions

- Requires organizational buy-in and conviction at all levels
- Key considerations:
 - What does success look like?
 - Communicate with everyone



Common Pitfalls in Implementing Actions

- Misaligned expectations of what successful implementation means
- Insufficient communication about the decision-making process that resulted in the implementation



BREAKOUT DISCUSSION!

Please reference your workbook for questions and space to record what you're learning.



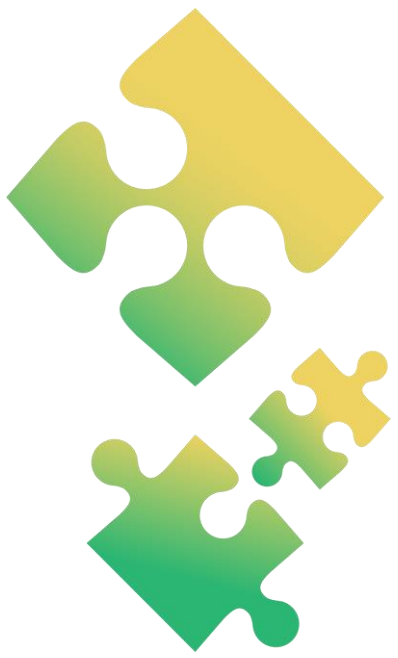
Step 4: Monitor and Review

- Risk changes over time and requires continuous review and monitoring
- This supports continuous improvement to ensure risk treatment is customized and effective
- Two levels of monitoring:
 - Monitoring and identifying changes in risk levels
 - Reviewing the framework itself for its effectiveness
- Results should be incorporated into reporting and communication activities.



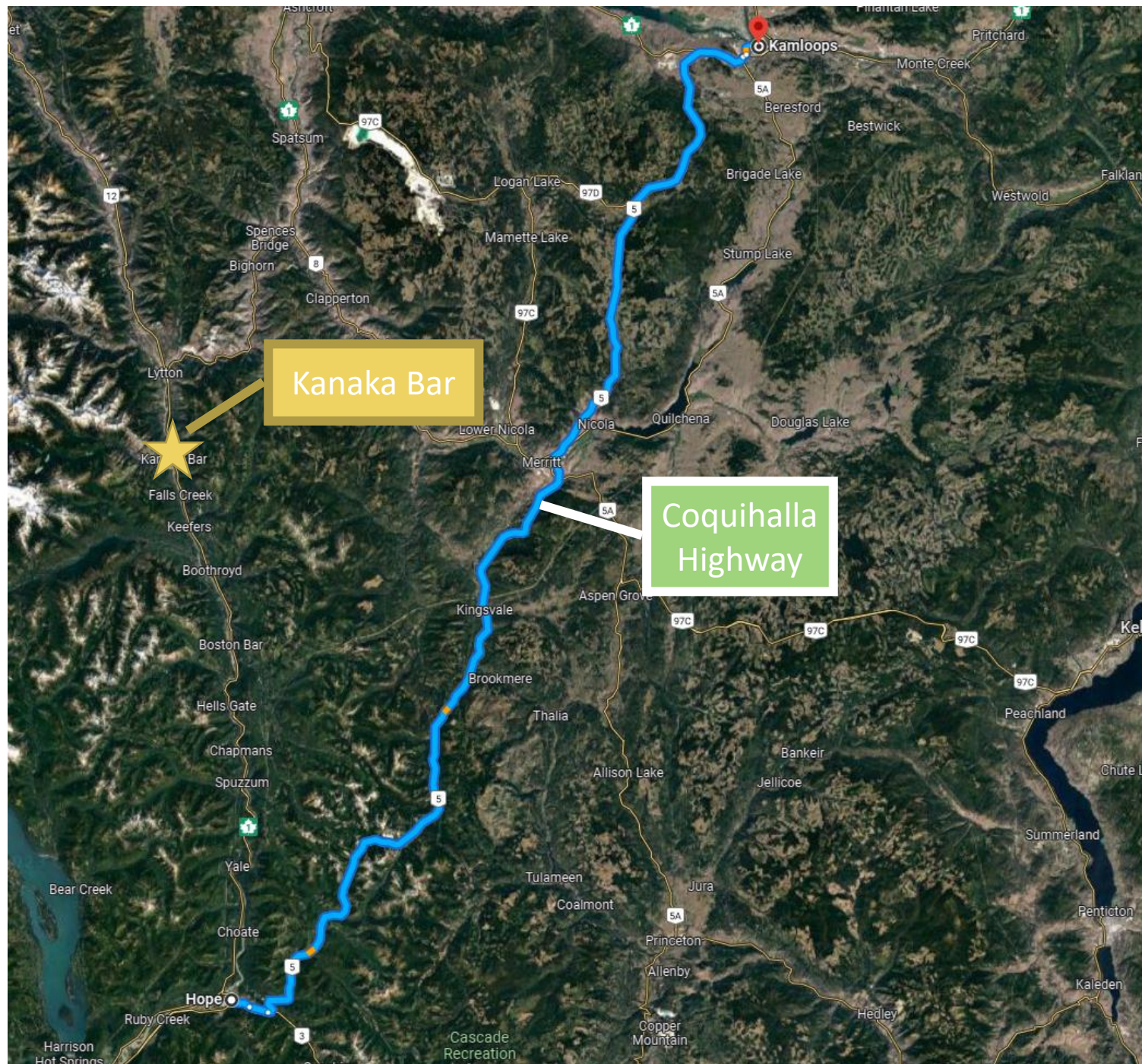
Common Pitfalls in Monitoring and Reviewing

- ... not monitoring!
- Not communicating the results of monitoring to stakeholders



Case Study: A Tale of Two Risk Assessments



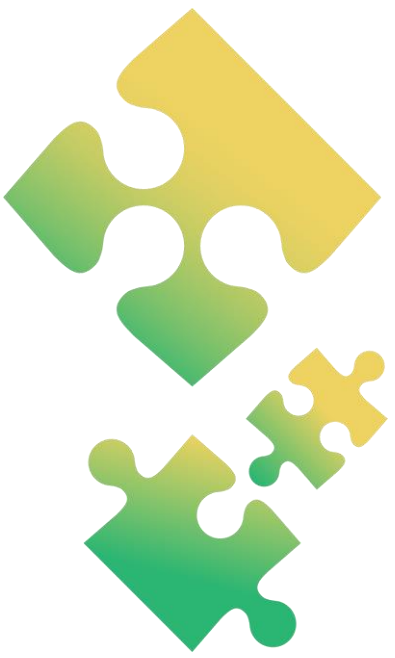




[New photos of Coquihalla Highway flood damage released | Globalnews.ca](https://www.globalnews.ca)



[december-2021.pdf \(kanakabarband.ca\)](https://www.kanakabarband.ca)



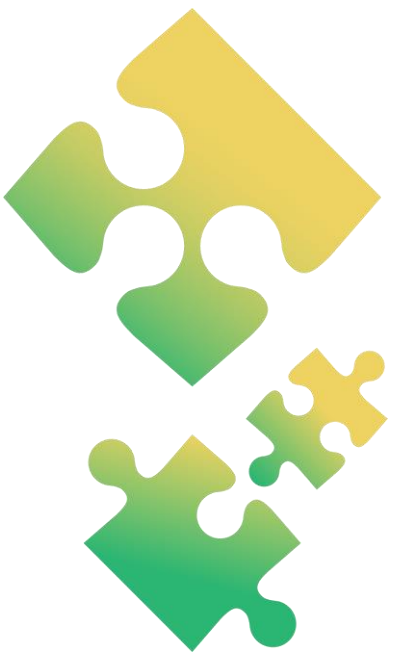
TEAM DISCUSSION!

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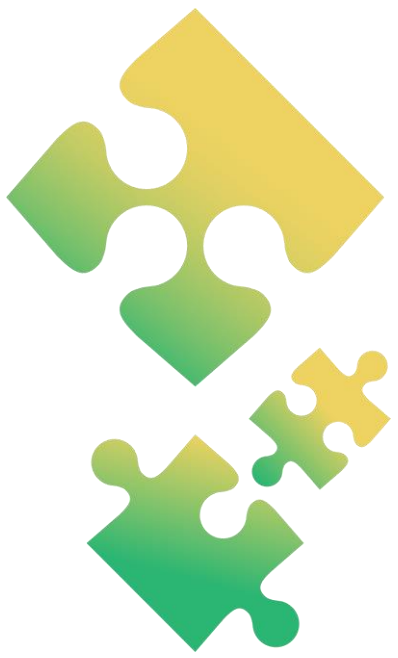
Communicating / Consulting and Risk Management

- Communicating about risk management is inherent to ongoing continuous improvement in AM
- Spend time making sure everyone involved understands the terms used in the same way
- Build an understanding of the elements of the process that are unique to your context
- Communicate with others about the value of risk management as a process
- Make it meaningful to different roles and perspectives



BREAKOUT DISCUSSION!

Please reference your workbook for questions and space to record what you're learning.



You've made it!

Congrats! This concludes Workshop 3.



What's Next?

- Continued check-in support
 - Additional small group check-ins over the summer
- Development of case studies
 - Incremental steps are still steps!
- Workshop #4
 - September 2023
- Thinking beyond the cohort