



Resetting Infrastructure Asset Management

***AMONTario Climate Change and Asset
Management***

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Infrastructure asset management is at a crossroads

- Municipalities are overwhelmingly the stewards of Ontario's infrastructure assets
- Our understanding about the applicability of asset management principles has been growing

However:

- As we recover from the pandemic, there will be growing demands upon infrastructure that will need to be addressed with limited resources
- The COVID-19 pandemic has challenged the public sector and revealed gaps in resilience. This is partly due to allocation of scarce resources but also connected with recognizing how integrated many complex challenges are.
- We are becoming increasingly aware of the impact of climate risks on municipal infrastructure
- For society to address a range of challenges effectively, Infrastructure asset management is increasingly part of conversations around driving a green recovery and more inclusive society.



Factors pushing climate risk, adaptation, and mitigation

- Increasing focus on sustainability, resilience, greening and climate risk when we speak about infrastructure
- Funding grants and financing sources are increasingly tied to ESG objectives
- Immediate reactions to specific ideas of how we manage climate risk without appreciating the lifecycle of the asset
- Asset replacement decisions increasingly evaluated through an environmental lens (e.g., fleet renewals and transit investments)
- Growth of sustainability roles
- Increased funds for climate adaptation and mitigation projects
- Asset management roles, plans, and strategies continue in parallel to climate risk concerns



What does this mean for infrastructure asset management?

- Across the province we have been speaking about the need for a “reset” and encouraging greater “resiliency”
- It is time we reset what we mean when we say “infrastructure asset management”
- The purpose of this conference is to rethink our frameworks, embrace new perspectives, and identify meaningful actions to implement a broader form of infrastructure asset management that addresses climate risk, adaptation, and mitigation concerns

What does Infrastructure Asset Management mean to your organization?



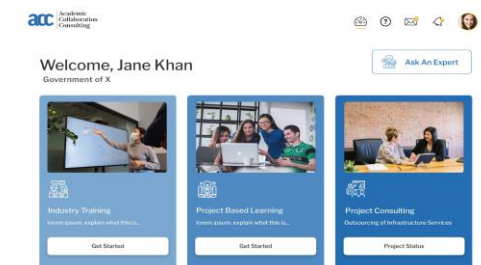
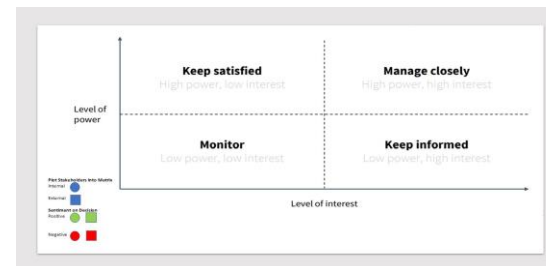
This reset is more than revising our frameworks

ADDRESS EXISTING CHALLENGES WITHIN ASSET MANAGEMENT

- Consensus on objectives and constraints
- Revisit decision making processes
- Examine organizational design to encourage collaboration across municipal departments and entities
- Be practical and realistic about level of service targets
- Take stakeholder management and strategy seriously
- Measure performance and develop data strategies
 - Conforming to best in class standards i.e. ISO 55001
- Embrace institutional memory and talent upskilling

TAILOR OUR SOLUTIONS FOR WHAT WE HAVE LEARNED SO FAR, AND THE CHALLENGE AHEAD

Risk Matrix						
Probability		Severity of Impact				
		Scale	1	2	3	4
1	>90%	Low	Low	Low	Medium	High
2	>70% to <90%	Low	Low	Medium	High	High
3	>25% to <70%	Low	Medium	Medium	High	Extreme
4	>1% to <25%	Medium	Medium	High	Extreme	Extreme
5	<1%	Medium	High	Extreme	Extreme	Extreme



Resetting asset management in practice

- Collaborating to revise municipal by-laws to encourage resiliency planning and design with a lifecycle lens
- Reviewing business processes to identify places where a ‘resiliency’ lens can be incorporated. Intent is to transform ‘business as usual’.
- Developing KPIs that specifically measure the overlap between climate risk resiliency and levels of service
- Entering partnerships with providers of alternative technologies to measure environmental benefits and total cost of ownership (i.e. telematics and sensors)



Thank You

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