The Aighment Refinent:

Using Strategy and Holistic Thinking to get the "Biggest Bang" from your Asset Management Program

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Introductions



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Background

Public infrastructure is a growing concern. As cities, utilities, and public institutions and agencies, we are challenged to balance current and future requirements, while living within our means.

Aging Infrastructure

Shifting Priorities

Limited Resources

Changing Environments



Background

Many of us are revisiting our approach to infrastructure asset management to better understand, plan for, and address these challenges and opportunities.

Target limited resources

- Link assets and investments to the services they support
- Quantify and evaluate LOS, risk and value-for-money
- Plan-for and prioritize needs and opportunities

Adapt to changing realities

- Accommodate growth without compromising existing assets
- Incorporate social considerations into plans and decisions
- Improve resiliency and adaptability to internal and external change

Enhance transparency and defensibility

- Communicate the business case behind spending decisions
- Justify new or increased investment based on ROI
- Demonstrate responsibility, stewardship and due diligence



Drivers - Canada

The push for better asset management is being supported at many levels

Federal

Provincial

— Industry

Grass Roots





Discussion #1

What's driving asset management within your jurisdiction?

What are the primary sources of guidance and support?

What improvements would provide the greatest value?







Advancing Asset Management Within Your Organization

Asset Management

Asset management involves balancing infrastructure system costs, opportunities and risks against the desired performance of assets, to achieve business goals and objectives.

Infrastructure value is created and sustained by managing the trade-offs between service, risk and cost over an asset's lifecycle. Understanding these factors, and their contributors, help us to... Align assets and service outcomes with current and future objectives

Manage the risks associated with meeting these requirements

Optimize lifecycle investment and minimize total cost of ownership



Asset Management

Important to recognize that effective asset management requires movement beyond minimum financial reporting requirements and consideration for how these relate to long-term needs.





Advancing AM in Public Sector Organizations

Effective AM programs strengthen the asset management function, and enhance the asset management system needed to drive planning and decision making.

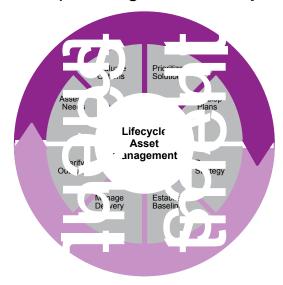
Strengthening the AM Function

Strengthening the organizational enablers needed to support and sustain investment planning and delivery over the long-term.



Enhancing the AM System

Enhancing the activities, practices and tools guiding robust, effective infrastructure investment planning and delivery.

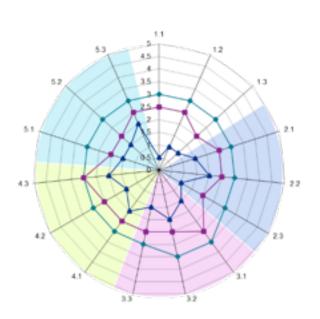




Strengthening the AM Function

Functional alignment is critical to program implementation, sustainment, and its overall success. An objective assessment of current organizational capacity and operating environments provides an understanding of key gaps and opportunities for improvement.





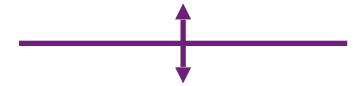




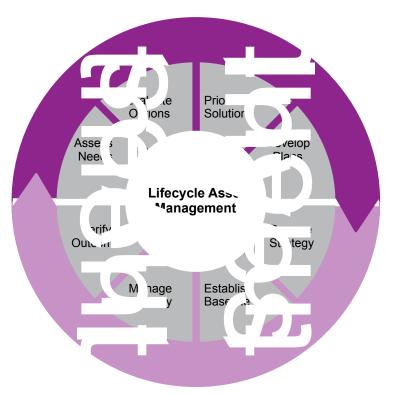
Establishing a robust AM System

An organization's asset management system drives the collection, analysis and use of information in investment planning and delivery.

Make better decisions



Deliver better value



Discussion #2

How did your asset management program get started?

What is your primary focus? What are some of your biggest priorities?

How far have you come? What do you see as your biggest accomplishments?

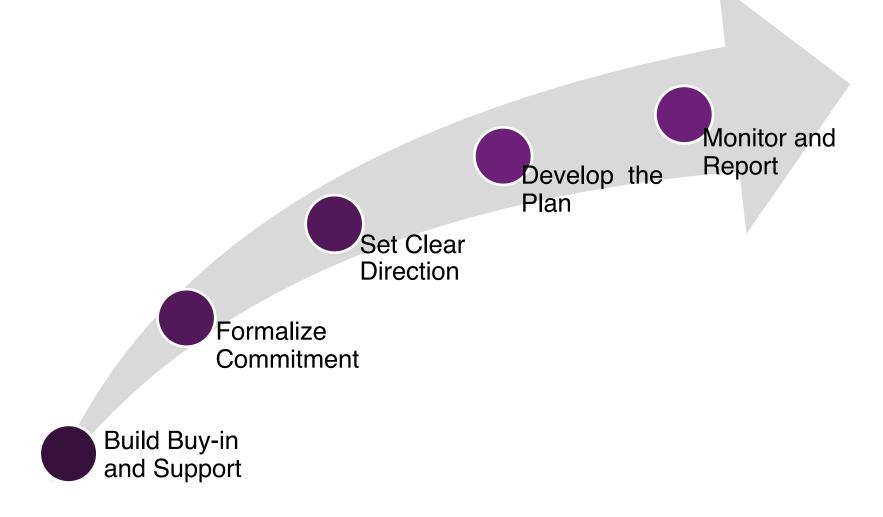






Creating Alignment Within Your Program

Mapping the Asset Management Journey...





Building Buy-In and Support

Establishing a common understanding of stakeholder viewpoints is crucial in building common vision and alignment in asset management needs and priorities.

Stakeholder	Key Issues	Business Goals	Area of Influence	Expected benefit from asset management
Finance (Example)	PS-3150reportingrequirementsFinancial stability	 Maintain compliance Fair valuation of assets Understand cash-flow requirements Stable financial plan 	 Historic financial information Financial accounts Financial plan 	 Stable long term financial plan Cost savings More readily available information
Council				
Leadership				
Engineering				
Operations				
Etc				



Formalizing Commitment

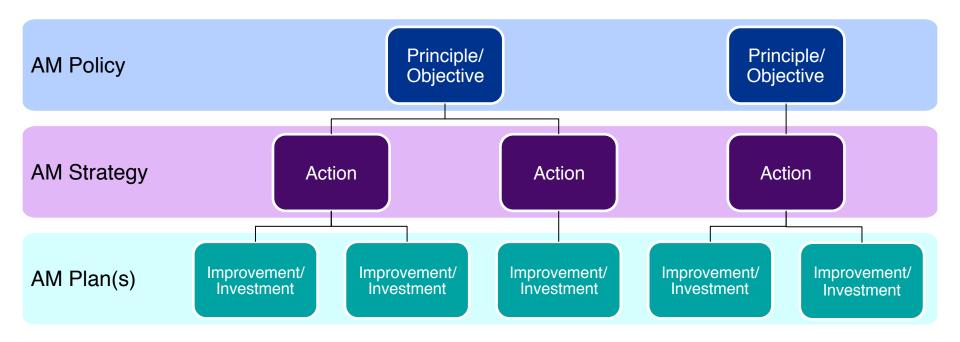
An Asset Management Policy formalizes an organization's commitment to and provides a clear understanding of goals and objectives, roles and responsibilities.





Setting Clear Direction

An Asset Management Strategy sets clear direction by defining the actions through which the vision will be achieved. The actions are expressed in the form of business improvements which are staged based on urgency and return on investment.





Developing the Plan

An Asset Management Plan (AMP) serves as the business plan, documenting an organization's approach and strategy for meeting defined business and service objectives through ongoing investment in operations, infrastructure and business change.

Business Goals and Objectives

Desired Levels of Service

State of Infrastructure

What do we need to do to achieve this?

Management

Strategy

What capital and operating investment is needed?

Financial Strategy

- Why are we here as an organization?
- What is our vision and what do we want to achieve?
- What services do we need to support these goals?
- At what level do we need to provide them?
- How does our infrastructure support service delivery?
- Where are the gaps and opportunities?

- What will this cost us and how will we pay?
- What trade-offs are needed to make this sustainable?



Monitoring and Reporting

AM improvement is a long-term commitment, with many benefits taking time to materialize. An effective means of measuring outcomes and communicating benefit realization—is critical to maintaining momentum, and program buy-in—and support.

1101102	
Projected debt vs ceiling	Lag
Annual % base funding gap	Lag
Value of capital deferred beyond preferred timing	Lead
% of business cases based on whole life costs	Lead
Value of capital \$ savings achieved	Lag
Value of opex \$ reductions achieved	Lag
INTERNAL BUSINESS PROCESS	
% of opex budget subject to review	Lead
Number of activities reviewed for ASD potential	Lead
% of operating functions with SOPs	Lag
% of BCs including review of impact on other depts	Lead
% of projects in CIP with robust business cases	Lead
% of asset base with up-to-date risk assessments	Lead

CUSTOMER	
Citizen survey outcome on affordable taxes	Lag
Customer LOS measures	Lag
Number road cuts within 5 years of new/rebuild	Lag
% of LOS measures with baseline data	Lead
% of LOS measures with customer expectation set	Lead
Citizen survey outcome about engaged customers	Lag
LEARNING & GROWTH	
LEARNING & GROWTH % of target employees going through AM training	Lead
	Lead Lead
% of target employees going through AM training	
% of target employees going through AM training % of job roles with AM competency assessment	Lead
% of target employees going through AM training % of job roles with AM competency assessment Staff feedback on training 6 mo post completion	Lead Lag
% of target employees going through AM training % of job roles with AM competency assessment Staff feedback on training 6 mo post completion % of PDEs with AM-related outcomes	Lead Lag Lead



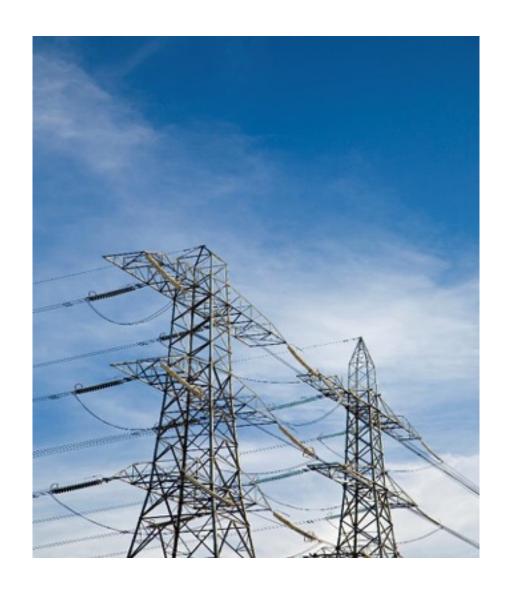
FINANCE

Discussion #3

Who is leading AM within your organization? Which groups are engaged? Do you understand stakeholder priorities?

Are an AM Policy and Strategy in place? What is their role in guiding program efforts?

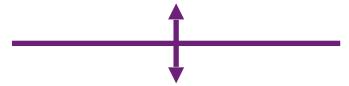
How are AM Program progress and benefits being evaluated and tracked? Who is the audience for reporting?



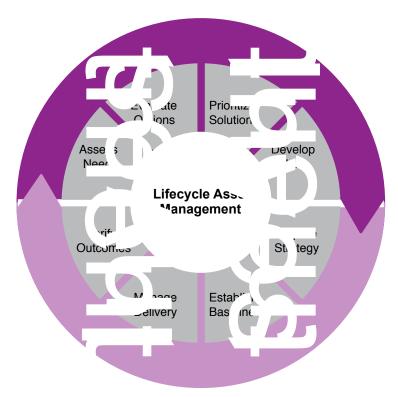


An organization's asset management system drives the collection, analysis and use of information in investment planning and delivery.

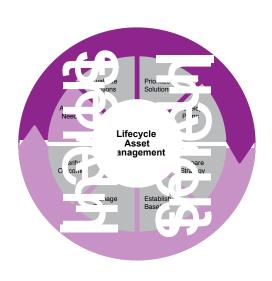
Make better decisions



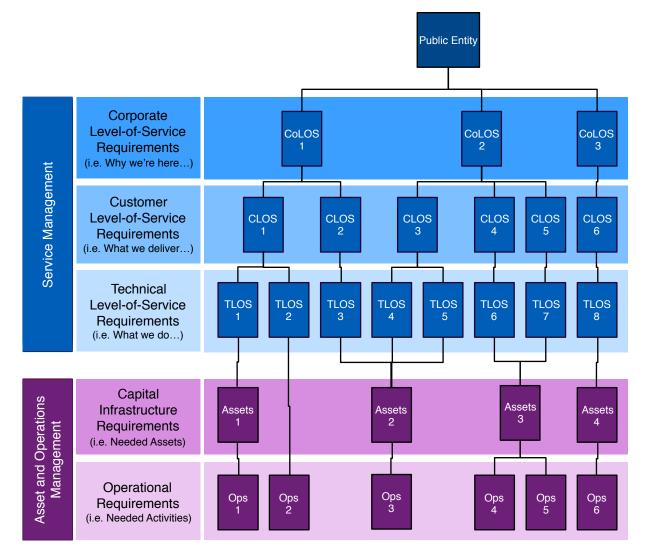
Deliver better value







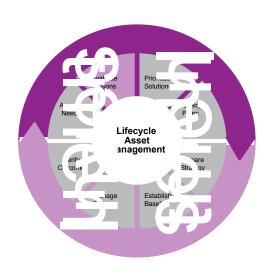
An integrated service framework identifies linkages between physical infrastructure and the services it supports. Risk analysis is used to identify and evaluate service gaps and enhancement opportunities.





Casing Framework

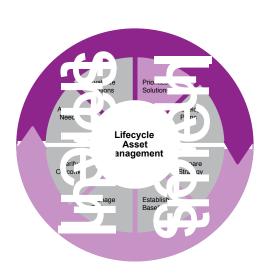
Lifecycle Business



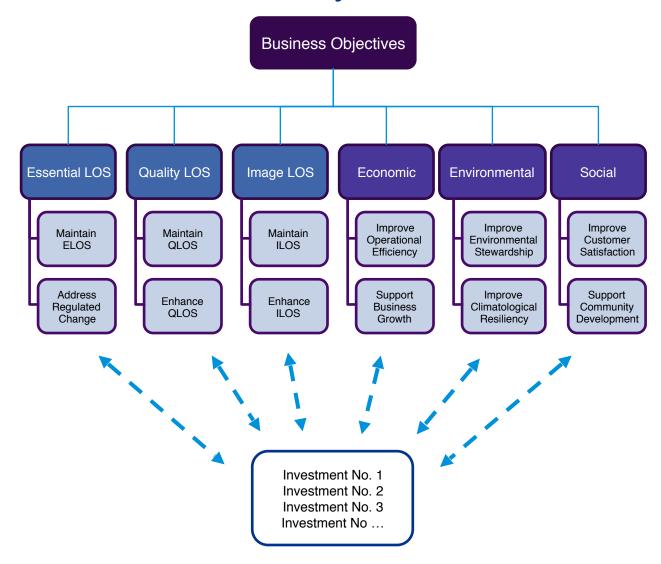
A structured business casing framework provides an effective platform for evaluating project options and defining scope, budget, schedule and lifecycle management requirements.

Business Needs & Establishes the case for change and clearly **Desired Outcomes** defines the need for the investment. Identification, analysis, and screening of a **Preliminary Options** comprehensive list of options to demonstrate Screening due diligence in the selection of choices. Full comparison of each viable option against **Viable Options** the evaluation criteria identified in the **Analysis** preliminary analysis Recommendation of a preferred option based Justification & on the net advantages of the viable option over Recommendation all others. Managing the Strategic considerations for how the investment will be managed and supported. Investment Lifecycle summary of benefits and costs Lifecycle associated with implementing the Summary recommended investment.

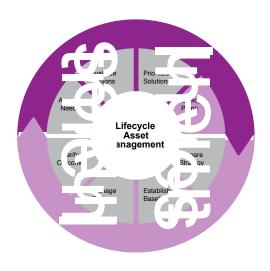




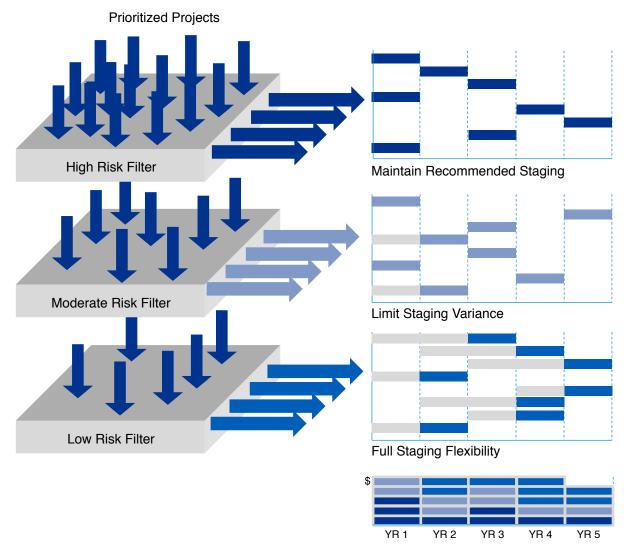
A multi-criteria prioritization (MCP) model evaluates projects based on business objectives and service impacts, and prioritizes investment on a value-for-money basis.



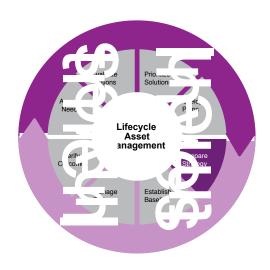




Capital investment plans (CIP) are developed using risk and scenario analysis to evaluate and stage prioritized projects based on funding, resource and deliverability constraints.







An effective delivery strategy confirming how individual projects are defined, how and when they are procured, and which contract strategies are employed, is the basis of successful program delivery.

Technical, Commercial and Financial Feasibility

 Analysis of technical, commercial and financial aspects, sensitivities

 Assess commercial aspects of projects, bankability, revenue flows, need for guarantees

 Assist in managing process; commercial and financial questions

Competitive Bid

Process

Delivery Considerations and Control Points Negotiations

- On concession agreements
- With the lenders
- Negotiation of commercial and financial terms;
- Risk analysis
- Assist in achieving financial closing

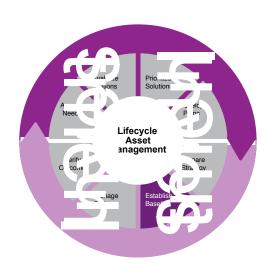
Risk Allocation

- Analysis of risk identification and risk management
- Guarantees or contractual design

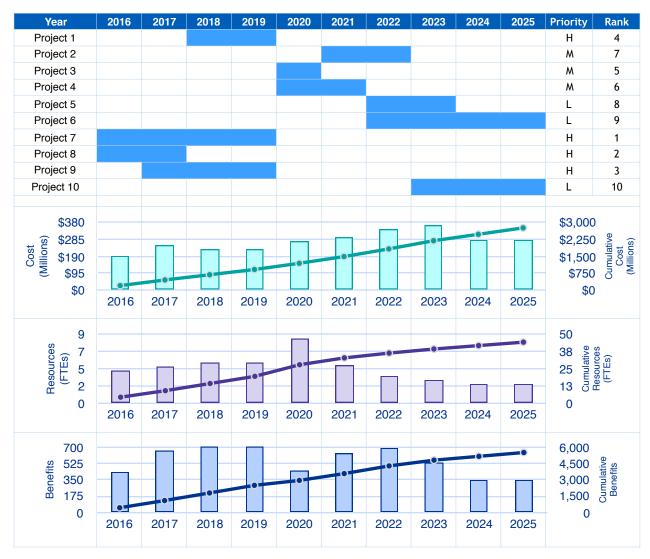
Modelling

- Financial modeling
- Sensitivity tests; tariffs, IRRs
- Test assumptions

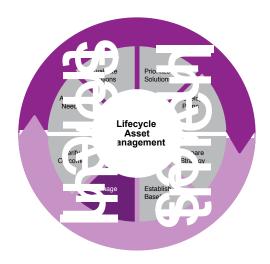




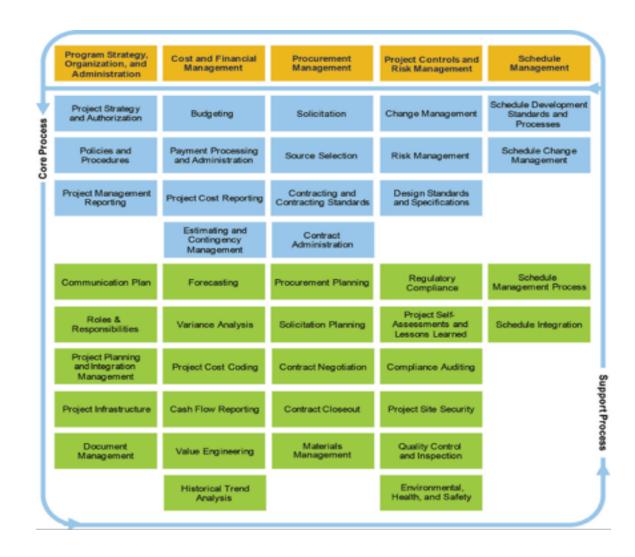
Effective procurement management is based on an equitable transfer of risk, in a fair, transparent and competitive manner, with adequate incentivizes for success, is an essential step in setting projects up for successful delivery.



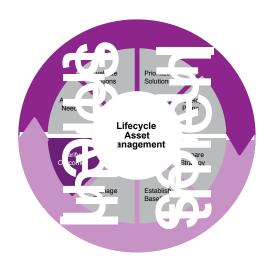




A robust project management framework creates a solid environment for success, and supports informed decision making by the executive.







The validation of investment outcomes against business case goals and objectives demonstrates value for money and ensures the ongoing transparency and defensibility of the planning process.

Actual Outcomes ■Service Impact **Planned Outcomes** ■Business Impact ■Service Impact ■Cost ■Business Impact ■Schedule ■Cost Quality Schedule Quality

Discussion #4

What's the relationship between investment planning and delivery within your organization?

Has line-of-sight been created between investments and service objectives? How can this be enhanced?

What's driving investment priorities? Is process transparent and defensible?







Moving Forward

Effective plans and investment decisions

A robust approach to asset management supports effective infrastructure investment planning and management.



Guides us in targeting limited resources by weighing the trade-offs between frontline outcomes, costs and risk to service



Supports us in adapting to changing ✓ realities by considering needs and investment requirements over the entire asset lifecycle



Enhances transparency and defensibility by introducing rigour and consistency into how needs and priorities are established, communicated and addressed



Transparency throughout the investment-cycle

A broad-based asset management program provides objectivity and creates transparency throughout the full investment cycle.





Long term sustainment

Asset Management
Plans guide long-term
investment and provide
an ongoing platform for
monitoring,
benchmarking and
improvement.



AMPs are meant to be living documents and evolve over time as needs, practices and priorities change



AM system components are used to demonstrate alignment between spending and strategic goals and priorities.



Initial plans will be basic, reporting current practice and spending priorities, and establish a plan for AM system improvement.



Mature plans will demonstrate progress in meeting service objectives, inform budgeting and guide long-term investment strategy



Discussion #5

What is your advice to other organizations who are just starting their AM journey?

What do you see as 'quick wins'? What's critical to long-term success?

What's on the horizon for your organization? Where are you planning to go from here?







Thank You



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