

Business Case Manual Volume 1: Overview



Metrolinx has a mandate to advance an integrated multi-modal transportation network in the Greater Toronto and Hamilton Area (GTHA). Strong evidence-based decision-making is a key contributor to the design, selection and a delivery of transport investments. The Metrolinx Business Case Guidance has been developed as a key component of an overall approach to evidence-based decision-making. This guidance provides a robust approach for assessing the benefits, costs, and impacts of a range of potential transportation investments.

Two guidance documents have been prepared to describe the purpose of Business Cases and how to develop consistent and comparable Business Cases for a range of potential transport investments.

The two documents are:



**Business Case Manual
Volume 1: Overview**

This document provides a concise summary of the overall Business Case approach used by Metrolinx to help stake-holders, decision-makers, and the public interpret Business Cases.

**Business Case Manual
Volume 2: Guidance**

Volume 2 provides detailed information on how to lead the development of a Business Case and outlines the key business areas with the expertise to support or review specific content. This document also lays out the analytical methods and parameters to support the development of Business Case content.

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The content of this version of the Business Case Guidance 1 is based on existing and established Business Case development practices used by Metrolinx. A change control and guidance development process is in place as part of the continuous improvement for this guidance.

Additional Business Case material can be found on Metrolinx's Business Case website:

http://www.metrolinx.com/en/regionalplanning/projectevaluation/benefitscases/benefits_case_analyses.aspx

What is a Business Case?

A Business Case is a comprehensive collection of evidence and analysis that sets out the rationale for why an investment should be implemented to solve a problem or address an opportunity. Each Business Case is developed using the same guidance to ensure a flexible but consistent and comparable approach across a wide range of investments. Investments include a range of policies, initiatives, and programs that require expenditure.

How do Business Cases fit in with Other Factors for Decision-Makers?

Business Cases provide evidence to decision-makers, stake-holders, and the public as a crucial part of transparent and evidence-based decision-making processes. They are used throughout any proposed investment's lifecycle, including planning, delivery, management, and performance monitoring.

Business Case analysis is used by Metrolinx as a sound and established method for evaluating potential transportation investments in a comprehensive manner. However, it is important to recognize that there are a wider range of factors that are considered as part of investment selection (as shown in Figure 1). These wider factors are included in Provincial and municipal decision-making processes.

These other factors will vary by investment and include issues like broad economic objectives, local community considerations, and affordability. Specific policy objectives may contribute to advancing certain investments. Examples include enhanced social equity and serving high-need neighbourhoods, and connectivity to major institutions, such as hospitals or post-secondary schools.

Figure 1: Business Cases are one Input for Decision-Making



What are the Core Objectives for a Business Case?

The Business Case seeks to answer the following core questions:

- 

What is the investment about? Why is it being considered? How will it be realized? How well does it perform against strategic objectives?
- 

Is the investment supported by a robust case for change that fits with business objectives and wider public policy objectives?
- 

Does the investment show sufficient value for money in terms of economic, environmental, and social benefits to proceed? What is the whole life cost of an investment? How much value will it realize?
- 

What are the investment's financial impacts? What sources of funding will be used?
- 

Is the investment achievable, and what are the engineering, technology, and operational issues and challenges? How will the investment be delivered and operated? What are the deliverability and operational implications?

When is a Business Case Required?

Business Cases are required by Metrolinx's Business Case Policy for capital infrastructure investments with an estimated balance sheet impact of \$50 million or more over the investment lifecycle or rehabilitation, expansion, renewal, or replacement investments with an impact of \$75 million or greater.

Business Case Analysis is required during different stages of an investment - including option analysis, preliminary design, procurement, and a post in-service analysis once it has been delivered. The level of analysis within the Business Case should be commensurate with the scale, risks, and nature of the investment.

In addition to the mandatory requirements set out within the Business Case Policy, there are other circumstances where Business Case thinking can be useful. These include where:

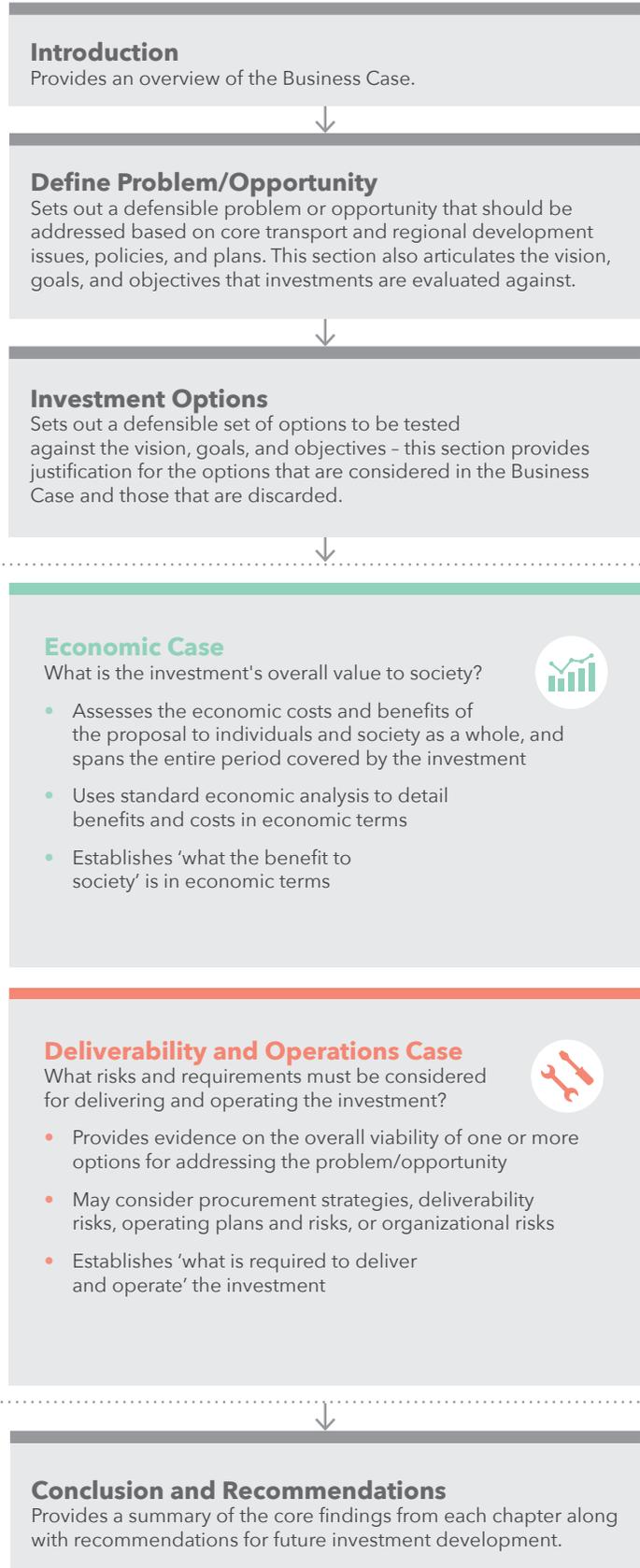
- there is more than one course of action available
- there are divergent or competing views about the best way forward
- there is significant risk to the institution associated with a particular course of action
- detailed justifications and explanations will be required to support decisions

How are Business Cases Developed?

How are Business Cases Structured?

The Business Case is structured around four cases: two that speak to the rationale for pursuing an investment (Strategic Case and Economic Case) and two that speak to implementing an investment (Financial Case and Deliverability and Operations Case). The overall structure of the Business Case is illustrated in Figure 2, with concise examples of Business Cases provided on pages 4 and 5. These examples illustrate how this guidance can be applied to a range of infrastructure, policy, and program investments.

Figure 2: The Business Case structure





Business Case Examples

Example: Regional Express Rail

Regional Express Rail (RER) will transform the GO rail system from a diesel powered commuter railway to an electrified regional express network that will provide fast and more frequent two-way all-day service across the Greater Toronto and Hamilton Area (GTHA)



Strategic Case: New peak and off-peak options for longer distance, regional travel into and out of downtown are necessary to maintain and improve regional access to jobs, services and cultural offerings.



Economic Case: Transportation benefits from this investment exceed costs by a ratio of 3:1.



Financial Case: The recommended RER program is estimated to cost approximately \$13.1 billion in capital expenditures.



Deliverability and Operations Case: RER will transform mobility and require significant development across the GTHA - including programs to manage construction impacts and new operating requirements, with over 50 trains a hour in the peak period using the Union Station Rail Corridor.

Example: GTHA Fare Integration

The existing fare structure in the GTHA is fragmented, which discourages transit use – an integrated fare structure will provide seamless mobility choices across the region's transit network



Strategic Case: Fare integration will increase customer mobility and transit ridership while supporting financial sustainability of transit services, removing travel barriers and creating a perceived unified transit network across the region.



Economic Case: Fare Integration will realize significant economic benefits, with a net present value of \$430 to \$2,170 million and a BCR ranging from of 2.7:1 to 22:1. Their BCR is estimated to be between 2.7:1 and 21.9:1 depending on the fare structure adopted.



Financial Case: Fare Integration can be delivered as revenue-neutral with an initial investment of \$60 to \$400 million for new equipment and fare structure changes.



Deliverability and Operations Case: Fare Integration is deliverable, but must be integrated with appropriate change management, decision-making, and technology development processes.

What is the Business Case Lifecycle?

The Business Case should remain a 'living document' throughout the entire decision-making lifecycle. This lifecycle - the transition from options analysis to planning and design on a preferred option and finally to delivery and operations - relies on a progression of decisions to guide an investment's advancement. These decisions are supported by a series of progressively detailed business cases.

Over the course of an investment's lifecycle, four Business Case documents will be prepared to provide the level of evidence that is appropriate at each stage (with further detail in Table 1):

- The Initial Business Case which compares investment options and selects a preferred option for further refinement and design. This Business Case is typically used to secure funding from the Province for planning and preliminary design.
- The Preliminary Design Business Case which takes the recommended option of the Initial Business Case and reviews different approaches to refine and optimize it, further clarifying scope and cost. This Business Case is typically used to secure funding from the Province for procurement and construction.
- The Full Business Case which confirms a specific option (including benefits realization, financing, and delivery plans) for procurement.
- The Post In-Service Business Case which reviews the actual costs and performance of the investment after the asset has gone into service. This Business Case provides lessons learned and opportunities to enhance the services being provided.

Development of a Business Case is a collective responsibility that requires input from all parts of Metrolinx. This reflects the diversity of investments undertaken by Metrolinx and its divisions.

As investments evolve from planning, to preliminary design, to a more detailed design, the expected benefits and costs will evolve. At all stages of investment development, periodic checks on the Financial and Economic Cases ensure a focus on value for money and optimization. The architecture of the Metrolinx Business Case Framework, including the shifting areas of effort as the investment develops is outlined in Figure 3.

Maintaining a focus on the Business Case for an investment over the lifecycle ensures that decision-makers and stake holders can:

- rapidly understand what factors will influence performance
- quickly assess alternatives, as necessary
- rely on a continuity of the evidence base to support governance and decision-making
- use up to date business analysis to support value engineering and other value for money exercises

Table 1: Business Case Lifecycle

	Initial	Preliminary Design	Full	Post In-Service
What is the purpose?	The Initial Business Case reviews variations of the preferred investment(s) from the Strategic Business Case as part of detailed planning. This Business Case selects a preferred option for further refinement and design.	The Preliminary Design Business Case selects a specific option and reviews different approaches to refine or optimize it. This Business Case leads to a single preferred option for final development.	The Full Business Case defines a specific option (including benefits realization, financing, and delivery plans) for procurement.	The Post In-Service Business Case reviews the actual costs and performance of the investment.
Project lifecycle stage	Part of detailed planning work. Occurs in the Feasibility and Options Analysis stage.	Part of the detailed design process. Occurs during the Preliminary Design stage, along with the Transit Project Assessment Process. This is prior to Procurement and Construction approval.	Part of procurement and financial planning. Occurs during the Design and Procurement Preparation stage, prior to RFP release.	Post delivery/ implementation after the investment is operational.
Approximate level of design	0-10%	10%	10-30% (with updates as design reaches 100%)	N/A
What does the Business Case lead to?	Selection of a preferred option for further design and analysis.	Selection of a preferred option for detailed design, development, and environmental assessment.	Definition of a preferred option to allow for procurement.	This review supports ongoing investment optimization and also support future Business Case Analysis for other projects.

Figure 3: Business Case Content Across the Business Case Lifecycle

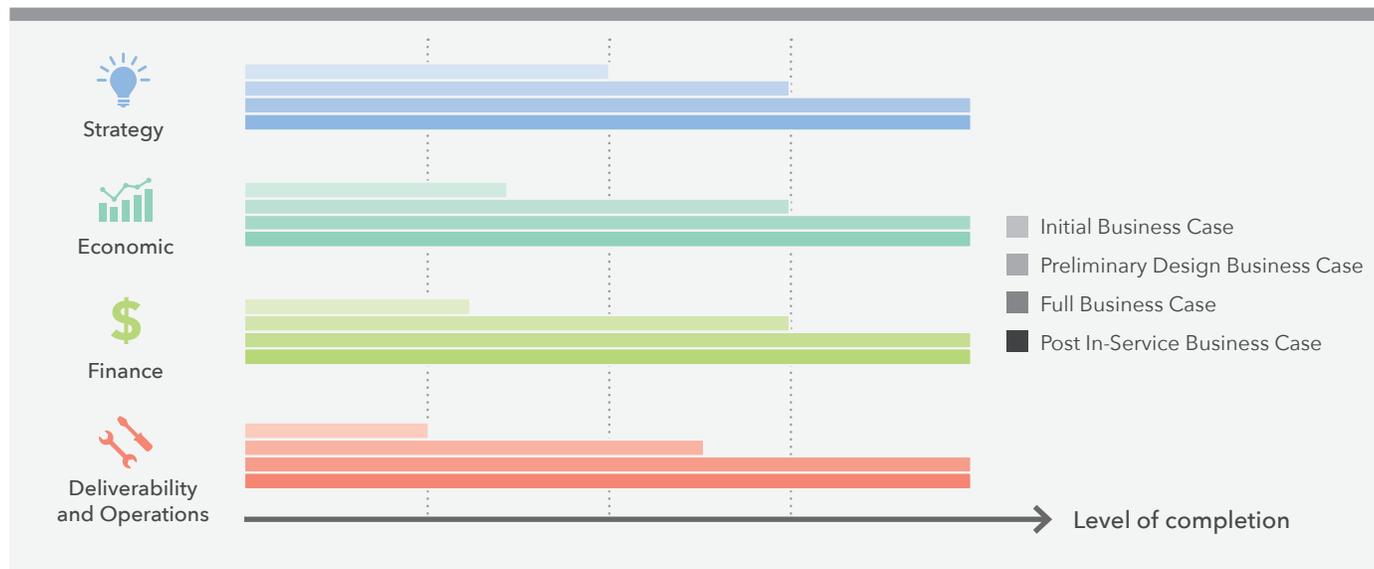


Figure 4: Illustration of the Business Case development process



How is Business Case Guidance Applied?

All Business Cases completed for Metrolinx should follow Business Case Manual Volume 2: Guidance to ensure they are developed using a common framework. This guidance has been developed to be flexible and responsive to a range of different investment types. This allows for objective comparisons of investment proposals and options, while:

- supporting decisions throughout an investment's lifecycle
- maintaining the focus on the key problems the investment is meant to help solve
- facilitating communication with decision-makers, stake-holders, and the public on investment performance

Business Case development is an ongoing process that recognizes the need to be agile and to maintain the currency and relevancy of evidence. This ensures decisions can be made with consideration of emergent trends and stake-holder needs.

What Evidence is Included in the Business Case?

All cases should include both quantitative and qualitative evidence and analysis that helps decision-makers understand the expected performance of proposed investments. Evidence is typically drawn from:

- historic data (example: Transport Tomorrow Survey)
- modelled data (example: cost models, transport demand models, or econometric forecasts)
- policy and plans (example: Metrolinx's Regional Transportation Plan)
- design, planning, and engineering analysis (example: a feasibility review of a rail corridor)

How are Risk and Uncertainty Managed in the Business Case?

An element of uncertainty and risk are expected on all investments. Each Business Case should help decision-makers understand the uncertainty related to the successful realization of an investment's benefits as well as the key risks involved in delivering the investment. Wherever possible, risk should be understood, quantified and reduced to acceptable levels.

This involves reviewing key assumptions used to derive costs and benefits, along with other decision-making criteria. Fit for purpose techniques technique, such as benchmarking or sensitivity tests, should be used during the design and analysis of investments within the Business Case lifecycle.

